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NURSING HOME RESIDENTS: SHORTCHANGED BY STAFF SHORTAGES, PART II

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BEFORE THE

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NURSING HOME RESIDENTS: SHORTCHANGED BY STAFF SHORTAGES, PART II

THURSDAY, JULY 27, 2000

U.S. SENATE,
SPECIAL COMMITTEE ON AGING,
Washington, DC.

The committee met, pursuant to notice, at 9:36 a.m., in room SD–628, Dirksen Senate Office Building, Hon. Charles E. Grassley, (Chairman of the Committee) presiding.

Present: Senators Grassley, Burns, Hutchinson, Wyden, Reed, and Lincoln.

OPENING STATEMENT OF SENATOR CHARLES E. GRASSLEY, CHAIRMAN

The CHAIRMAN. Good morning. I normally do not start the meeting until Senate Breaux arrives, but I have been told that he is on his way, so I think I will take advantage of a few seconds to make my opening comments and then go to others for opening comments.

I want to say good morning to everybody who is here as this committee looks into the situation with nursing homes, both from the standpoint of Congress' job as oversight and from the standpoint of the Health Care Financing Administration doing its work, and from the standpoint of stakeholders as well. But most importantly, we are all here today because we are concerned about the quality of care and the expenditures of taxpayers' money, the $39 billion spent out of the Treasury, various Federal programs, mostly Medicare and Medicaid, for nursing homes.

For more than 2 years, our Special Committee on Aging has worked to improve the quality of care in nursing homes. We have learned that too many nursing home residents suffer from bedsores, malnutrition, and dehydration.

One cannot help but wonder why these horrible conditions exist. Again and again, family members and other advocates tell us that the answer is that there is too little nursing home staff. They have given us many, many anecdotes illustrating what staffing shortages mean to nursing home residents. I only want to mention three, but we could go on and on for an entire meeting with anecdotal evidence that has come to us, and 2 years ago, we heard some of this presented in our hearings.

A daughter finds her mother unbathed, unfed, and lying in her soiled pajamas at 11 a.m. in the morning.

A doctor documents a resident's sharp weight loss since admission to a nursing home.

An emergency room worker reports that a resident's bedsore is huge, bone-deep, and infected.

These incidents obviously turn the stomach and hurt the conscience. They beg for a solution. The first step toward reaching a solution is documenting the problem, and that is why we are here today.

We have the initial phase of the more comprehensive study of nursing home staffing shortages that has ever been done to date. The study links staffing shortages to poor care. This is a very common-sense relationship, but it has not been well-documented until now. Ten years ago, Congress mandated this study. It was supposed to be done in 1992. I do not understand why it was not done then or why it has taken so long thus far.

The well-being of 1.6 million nursing home residents hangs in the balance. Now, of course, we have to make up for some lost time. The study is disturbing. It suggests that more than half of our nursing homes fall below the bare minimum staffing levels. Fifty-four percent of nursing homes have less than the minimum staffing level for nurses' aides. Last November, this committee convened a forum to learn about nurses' aides and the role they play in the nursing home. We heard that they are the least-trained and the least-paid of all nursing home staff, yet these people do the most physical of work.

For less than $7 an hour, nurses' aides feed and bathe patients and turn them to prevent bedsores. They sometimes have as many as 15 to 30 patients per shift. A nurses' aide is a nursing home resident's lifeline. Too few nurses' aides, consequently too many patients suffer.

What do we do with this new information? That is why we are here today. Should Congress mandate minimum staffing levels for nursing homes? Maybe we should. But first, we need two more pieces of this puzzle. The first piece is the second piece of the study that is before us today.

Today we have a very good start, but the second phase will have even more detail, including the cost of implementing minimum staffing requirements, so I hope the second phase comes quickly.

Another necessary piece of information is an analysis of how the nursing home industry spends its money. Nursing homes accept $39 billion a year of taxpayer money for the care of residents. Where does the money go? Is $39 billion a year enough to get the job done? The General Accounting Office is studying this money trail, and they are doing it at my request. I will not receive that report until early next year.

However, I have two immediate action items. First, I know that Congress is considering a proposal to give the nursing home industry some of the Medicare money that we cut in the Balanced Budget Act of 1997. We expect a replenishment bill to be up sometime in September.

Based on today's report, I am not willing to give the nursing home industry a blank check. The industry has argued repeatedly that it needs more money to hire more staff. If the industry receives more money this year, I would like to see that increase tied to staffing, and I plan to develop a proposal to that effect. Today's

first witness, the administrator of the Health Care Financing Administration, is willing to explore this idea with me.

Second, I plan to look into options that would encourage States to increase Medicaid rates of nursing homes if they agree to hire more staff with the increased rates. As many people know, the majority of revenue in nursing homes is Medicaid and not Medicare. My proposal will take some time to develop, and I plan to make it a priority and will turn to various stakeholders for assistance, including the State governments that we have to deal with on this issue.

The bottom line, then, is that the taxpayers pay for nursing home care. The taxpayers deserve to know where this money goes.

Our first witness is Nancy-Ann Min DeParle. She is Aministrator of the Health Care Financing Administration, and she has responded to our request to come today, at a very difficult time, and has rescheduled her own schedule to be here with us, because this is a very important issue to her as well. I welcome her interest in working with me on nursing home shortages.

Our next two witnesses, who I will introduce now but will not come to the table until after Ms. Min DeParle has concluded, are Dr. Andrew Kramer, who is with the University of Colorado Health Center on Aging in the Division of Geriatric Medicine; and Dr. John F. Schnelle, from the Borun Center for Gerontological Research at the Los Angeles Jewish Home for the Aging, and also on the staff of the UCLA School of Medicine.

Now, I will call on members in the order in which they arrived—Senator Hutchinson, Senator Burns, and Senator Reed of Rhode Island, with the exception that if Senator Breaux comes, I will allow him to make his statement before any of the rest of you.

Senator Hutchinson, please proceed.

STATEMENT OF SENATOR TIM HUTCHINSON

Senator HUTCHINSON. Thank you, Mr. Chairman.

I highly commend you for holding this hearing of the Special Committee on Aging today to examine nursing home staffing requirements and their impact on quality of care for nursing home residents.

Almost 1.6 million Americans reside in approximately 17,000 nursing homes. These residents, as you have rightly pointed out, are the most vulnerable in our society. About half of them need assistance with feeding, and about one in five residents totally depend on assistance.

There is indeed a crisis that is happening in our nursing homes, and I am sure a big part of it involves the staffing. Some of the anecdotes that have been pointed out by today's witnesses underscore that crisis.

But we also have a crisis in the fact that the availability and accessibility to nursing homes is in jeopardy. In the last 2 years, four major nursing home chains in this country declared bankruptcy. As you pointed out in your statement, Mr. Chairman, unemployment has been so low that it has been difficult to retain qualified workers, and the salaries being paid to nursing home staff certainly make it more difficult to get the kind of quality of workers that we need.

Seriously ill and chronically ill patients are living longer today thanks to advances in medical technologies, which is a good thing, but it exacerbates the situation with nursing homes and adds to the nursing home crisis.

And last but certainly not least, Federal reimbursements for nursing homes have dropped significantly, leaving many nursing homes in dire straights as they try to meet the staffing needs that this report has identified. I am therefore glad that the Senate is expected to consider another Medicare giveback bill this fall.

I note in the executive summary of the report that it does not include any specific recommendations, and the potential establishment of a regulatory minimum ratio requirement will require further research in more States in order to assess relative costs and benefits. In addition, more research will be required to assess the feasibility of implementing minimum ratio requirements.

So I join the chairman in hoping that the additional research and the second phase of this report come quickly.

We bear some of the responsibility, I believe, in the reductions that have occurred in nursing homes, and while it is good and appropriate that the GAO follow the money and determine how those Federal tax dollars are being spent, we cannot expect an industry to provide better services with greater care if we continue to squeeze the reimbursement rate.

I hope that with our consideration of new Federal staffing requirements, Mr. Chairman, that we will also recognize the need to provide sufficient resources to ensure that those requirements can in fact be met.

Again, thank you for holding this hearing today.

The CHAIRMAN. I agree with you on your last point. This is something that we bear responsibility for and have to look at; but also, in the process of more money, we need to make sure that it goes for the quality of care that we seek.

Senator Burns, and then Senator Reed of Rhode Island.

STATEMENT OF SENATOR CONRAD BURNS

Senator BURNS. Thank you, Mr. Chairman.

I want to associate myself with the words of my good friend from Arkansas, that we do bear some responsibility. Last year, I thought we put a significant amount of money toward shoring up reimbursements to nursing homes, and what I am hearing from my operators in Montana is that we have not seen that money, but we still have a cadre of investigators and these kinds of people running around our units, harassing patients and caregivers alike. So I am really concerned about that and about the regulations end of it—although we must have regulations, and we understand that.

So I will just submit my statement, because I want to hear from the Administrator of HCFA and then ask some questions. I think we can learn a lot more that way, than just batting around the breeze amongst ourselves up here.

Thank you, Mr. Chairman, for having this important hearing.

The CHAIRMAN. Thank you.

Senator Reed.

STATEMENT OF SENATOR JACK REED

Senator REED. Thank you, Mr. Chairman, and I thank you for convening this hearing regarding HCFA's report on the quality of nursing homes throughout the country.

One of the critical issues they have identified and you and our colleagues have commented upon is the lack of adequately trained staff in these nursing facilities. In my home State of Rhode Island, there is a particularly critical shortage in certified nursing assistants. These are men and women who serve as critical caregivers in nursing homes. We have not a shortage of licensees—there are 26,000 individuals in Rhode Island who are licensed to be CNAs yet only 14,000 are employed in nursing homes. The principal reason, which the report illustrates, is wages and compensation. As you pointed out, Mr. Chairman, one of the biggest components of the revenue stream for nursing homes is Medicaid funding, followed by other Medicare Programs. When we put the pressure on those funds, it does not allow for the level of wages which are competitive in this very hot market.

As a result, in Rhode Island, we are seeing a huge turnover as people leave nursing home jobs. The turnover rate in 1999 was an unprecedented 82.6 percent.

It turns out, again, if you look at the wage structure, a hotel maid can start off at $9.50 an hour while the typical starting wage for a CNA is $7.69 an hour, and I would argue that CNA's have a much more challenging and sensitive role to play.

So we have a situation that we must address, because our responsibility is to provide quality care for our seniors. It is going to require not only looking closely at this study but committing ourselves to fund the resources necessary to attract qualified individuals into nursing homes and keep them there.

I thank you, Mr. Chairman, for your attention to this issue.

The CHAIRMAN. Thank you.

Now I will turn to the Director of the Health Care Financing Administration, who has appeared before our committee many years. Since our hearings 2 years ago, she and her staff have worked closely with us to monitor the States' enforcement of Federal regulations and our own oversight of those Federal regulations. So we appreciate that ongoing dialog that we have had with you. We still have a way to go, as I am sure you would recognize, and even today's report says so, but at least there is a process in place so that there is cooperation rather than antagonism.

Please proceed.

STATEMENT OF NANCY-ANN MIN DEPARLE, ADMINISTRATOR, HEALTH CARE FINANCING ADMINISTRATION, WASHINGTON, DC

Ms. DEPARLE. Thank you, Mr. Chairman and distinguished committee members.

I appreciate the opportunity to be here this morning to discuss the need for adequate staffing to ensure quality care in our Nation's nursing homes. Protecting nursing home residents is a priority for this Administration and for me personally, Mr. Chairman, as you know; and getting this report done for you was a priority for me.

I want to thank this committee, too, for providing so much help to us in our efforts to work on this issue of improving quality of nursing homes. And in particular as you are now considering the budget for this year, I want to thank you, Mr. Chairman, for the help you have provided us in getting additional funding in the past for our survey and certification efforts, which are so vital to ensuring that quality standards are maintained, and I hope you will be able to help us again this year, because as you know, we have a challenge there.

We are just now completing the first phase of extensive research on the issue of staffing, and we are sharing this morning with the committee our preliminary findings and also describing the remaining challenges that are ahead of us, and each of you has described some of those challenges this morning.

We made the draft report available, Mr. Chairman, to you last night, although the final one is not yet completed. Our findings to date show a strong association between staffing levels and quality care. Now, as you said, Mr. Chairman, this seems like common sense, and to all of us, I think it may seem intuitive, but the fact is that this is the first time ever that a clear relationship between staffing levels and quality of care has been demonstrated in a statistically valid way. We have all heard the anecdotes, and I agree with you that they are very upsetting, but this is the first time that we have had statistically valid representation of that relationship between staffing levels and quality of care, so it is very significant.

I think it marks a significant step forward in understanding this relationship between quality and staffing. The findings demonstrate that there are significantly more problems in facilities with less than 12 minutes of registered nursing care, less than 45 minutes of total licensed staff care, and less than 2 hours of nursing aide care per resident per day. I want to emphasize that these are minimums, and they do not necessarily describe optimal situations, but it shows a clear relationship if you go below those levels of staffing with additional problems.

The results are very troubling and very disturbing and suggest that many facilities may need to increase staffing levels. With us this morning, as you mentioned, are Dr. Kramer from the University of Colorado and Dr. Schnelle from UCLA, and they were the principal investigators who did the work on this study, and I know the committee will have more detailed questions for them about their work.

The results at this point, as you emphasized, Mr. Chairman, are preliminary, and they represent the first step—and I think it is a

big step—in taking action to address staffing issues and improve nursing home quality.

I think we have a lot of hard work ahead of us at our agency, and we have a lot of hard work ahead of us working together with you.

We are now working hard on several necessary additional efforts. We are working to refine ways to adjust for the case mix or severity of illness and the amount of care required by patients in a given facility. We think this work is important to tailor the results and tailor minimum staffing level requirements, if we decide those are feasible, to individual facilities.

We believe that we should expand our studies beyond the three States included in the research so far, and those States are Ohio, Texas, and New York. We included almost 2,000 nursing homes, and we think it was a very robust analysis, but we want to expand it further to make sure that it is predictive across other States.

We need to validate these findings with individual case studies of specific facilities, and we are in the middle of that right now; and we need to determine the costs and feasibility of implementing minimum staffing requirements, because what this Congress asked us to do was to look at the feasibility, and I think you have all raised that cost is an issue here, and we need to look at that as well.

Earlier this year, we began to post data on the number and types of staff at individual nursing homes on our Medicare.gov website's "Nursing Home Compare" page. I mention that, Mr. Chairman, because I think one of the most important things is to make the public aware of staffing and that it is an issue, and that it is something they should consider when they are looking at a nursing home.

As evidence that people are hungry for this information, it is by far the most popular section of our consumer-oriented Medicare.gov site, with some 500,000 page views per month. It is a key part of our efforts to try to increase nursing home accountability by making information available to the public and, if I may say so, to other nursing homes. And I think it helps to promote better quality by the nursing homes themselves seeing this information and realizing how they compare with other nursing homes.

As we continue our research on staffing levels, we want to work with this committee and with the Congress, as well as with States and industry and labor and consumer advocates, to evaluate ways to ensure that all nursing home residents receive the quality care they deserve.

As you mention and as your colleagues here have mentioned, these strategies could include minimum staffing levels, but they should also include things like improved training, increased dissemination of performance data, and enhanced intensity of survey and certification practices.

The research that we are unveiling today is groundbreaking. Its results I think are disturbing and troubling, and we are working diligently to take necessary next steps for determining the costs and the feasibility of implementing minimum staffing requirements.

We look forward to continuing our partnership with you as we move forward, and I thank you again for holding this hearing and for bringing attention to this very important issue.

[The prepared statement of Ms. DeParle follows:]

Testimony of
NANCY-ANN DEPARLE, ADMINISTRATOR
HEALTH CARE FINANCING ADMINISTRATION
on
NURSING HOME STAFFING
before the
SENATE SPECIAL COMMITTEE ON AGING

July 27, 2000

Chairman Grassley, Senator Breaux, distinguished Committee members, thank you for inviting me to discuss the need for adequate staffing to ensure quality care in nursing homes. We are completing the first phase of extensive research on this issue, and appreciate this opportunity to share our preliminary findings and describe remaining challenges.

Our findings to date show a strong association between staffing levels and quality care. This is the first time ever that a clear relationship between staffing levels and quality of care has been demonstrated in a statistically valid way, and marks a major step forward in understanding that relationship. The findings demonstrate that there are significantly more problems in facilities with less than 12 minutes of registered nursing care, less than 45 minutes of total licensed staff care, and less than 2 hours of nursing aide care per resident per day. The results are troubling, and suggest that many facilities may need to increase staffing levels.

However, the results at this point are preliminary and represent only the first step in taking action to address staffing issues and improve nursing home quality.

We are now working to:

- refine ways to adjust minimum staffing requirements for the case mix, or severity of illness and amount of care required by patients in a given facility;
- expand our studies beyond the three States included in research so far;
- validate the findings with individual case studies of specific facilities;
- determine the costs and feasibility of implementing minimum staffing requirements.

Meanwhile, earlier this year, we began posting data on the number and types of staff at individual nursing homes on our *medicare.gov* website's "Nursing Home Compare" page. This is by far the most popular section of our consumer-oriented Internet offerings, and is a key part of our comprehensive efforts to increase nursing home accountability by making information on

each facility's care and safety record available to residents, families, care givers, and advocates.

BACKGROUND

Protecting nursing home residents is a priority for this Administration and our agency. Some 1.6 million elderly and disabled Americans receive care in approximately 16,500 nursing homes across the United States. The Medicaid program, in which States set reimbursement levels, pays for the care of the majority of nursing home patients, while the Medicare program pays for care of about 10 percent of patients. The federal government provides funding to the States to conduct on-site inspections of nursing homes participating in Medicare and Medicaid and to recommend sanctions against those homes that violate health and safety rules.

In July 1995 the Clinton Administration implemented the toughest nursing home regulations ever, and they brought about marked improvements. However, both we and the GAO found that many nursing homes were not meeting the requirements and the State enforcement efforts were uneven and often inadequate. Therefore, in July 1998, President Clinton announced a broad and aggressive initiative to improve State inspections and enforcement, and crack down on problem providers. To strengthen enforcement, we have:

- expanded the definition of facilities subject to immediate enforcement action without an opportunity to correct problems before sanctions are imposed;
- identified facilities with the worst compliance records in each State, and each State has chosen two of these as "special focus facilities" for closer scrutiny;
- provided comprehensive training and guidance to States on enforcement, use of quality indicators in surveys, medication review during surveys, and prevention of pressure sores, dehydration, weight loss, and abuse;
- instructed States to stagger surveys and conduct a set amount on weekends, early mornings and evenings, when quality and safety and staffing problems often occur, so facilities can no longer predict inspections;
- instructed States to look at an entire corporation's performance when serious problems are identified in any facility in that corporate chain, developed further guidelines for sanctioning facilities in problem chains, and collected State contingency plans for chains with financial problems;
- required State surveyors to revisit facilities to confirm in person that violations have been corrected before lifting sanctions;
- instructed State surveyors to investigate consumer complaints within 10 days;
- developed new regulations to enable States to impose civil money penalties for each serious incident; and

- met with the Department's Departmental Appeals Board to discuss increased work load due to the nursing home initiative.

We also are now using quality indicators in conjunction with the Minimum Data Set that facilities maintain for each resident. These quality indicators furnish continuous data about the quality of care in each facility and allow State surveyors to focus on possible problems during inspections, and it will help nursing homes identify areas that need improvement.

In addition, we have been working to help facilities improve quality. For example, we have:

- posted best practice guidelines at *hcfa.gov/medicaid/siq/siqhmpg.htm* on how to care for residents at risk of weight loss and dehydration;
- been testing a wide range of initiatives to detect and prevent bed sores, dehydration, and malnutrition in ten states, and worked with outside experts to develop a systematic, data driven process to identify problems and provide focus for in-depth on-site assessments;
- worked with the American Dietetic Association, clinicians, consumers and nursing homes to share best practices for preventing these problems and begun a national campaign to educate consumers and nursing home staff about the risks of malnutrition and dehydration and nursing home residents' rights to quality care this year.

We also are continuing to develop and expand our consumer information to increase awareness regarding nursing home issues. We are now conducting a national consumer education campaign on preventing and detecting abuse. And we are working to educate residents, families, nursing homes and the public at large about the risks of malnutrition and dehydration, nursing home residents' rights to quality care, and the prevention of resident abuse and neglect.

Nursing Home Compare Website

Key among our efforts to increase nursing home accountability is making information on each facility's care and safety record available to residents, their families, care givers, and advocates. One of the most successful ways we are doing this is through our new Nursing Home Compare Internet site at *medicare.gov*, which allows consumers to search by zip code or by name for information on each of the 16,500 nursing homes participating in Medicare and Medicaid.

As mentioned above, we are now posting data on the number of staff in each of these facilities on the Nursing Home Compare site. These data include the number of registered nurses (RNs), license practical or vocational nurses (LPNs), and nurse aides in each facility. The site also includes information on:

- the number and type of residents;

- facility ownership;
- records of deficiencies or quality problems found during inspections by State survey agencies; and
- ratings of each facility in comparison to State and national averages.

Nursing Home Compare is recording 500,000 page views each month and is by far the most popular section of our website. The staffing data are a critical addition, in light of the new research we are unveiling on the strong association between staffing levels and quality care.

MINIMUM STAFFING NEEDS

The ongoing research to quantify the staffing ratios necessary for quality care is another essential step in our efforts to improve the quality of life and care for nursing home residents. Current law and regulations require only that nursing homes provide "sufficient nursing staff to attain or maintain the highest practicable . . . well-being of each resident," with a minimum of 8 hours of RN and 24 hours of LPN coverage per day.

The research was mandated by Congress in 1990, with a report due in 1992, but proved to be much more challenging than anticipated. Our report on the first phase of this research, which we expect to deliver to Congress next week, establishes for the first time in a statistically valid way that there is, in fact, a strong association between staffing levels and quality of care. Many had long suspected as much, but this had never before been documented. This study will provide a basis for further work in this area.

To conduct this research, we contracted with several research firms and gathered comprehensive data from 1,786 nursing homes in three States. We convened a panel of nationally recognized experts in long-term care, nursing economics, and other disciplines. We also consulted extensively with consumer advocates, nursing home industry officials, and labor unions representing nursing home workers.

Multivariate analyses were used to identify potential critical ratios between measures of nurse staffing and outcomes such as avoidable hospitalizations, improvement in ability to perform daily activities, and incidence of weight loss and pressure sores. The data were adjusted for case mix; however, refinement of methods for taking case mix into consideration are necessary to establish national minimum staffing levels.

These multivariate analyses demonstrated that, on average, quality of care is seriously impaired below certain minimum ratios -- 2 hours per resident day for nurses aides, 45 minutes per resident day for total licensed staff (RNs and LPNs), and 12 minutes per resident day for RNs. They also demonstrated that quality of care is improved across the board at higher "preferred minimum" ratios of 1 hour per resident day for total licensed staff and 27 minutes per resident day for RNs.

	Suggested Minimum Staffing	*Preferred Minimum*
RNs	12 minutes	27 minutes
Total Licensed Staff	45 minutes	1 hour
Aides	2 hours	2 hours

Nationwide, more than half (54 percent) were below the suggested minimum staffing level for nurses aides, nearly one in four (23 percent) were below the suggested minimum staffing level for total licensed staff, and nearly a third (31 percent) were below the suggested minimum staffing level for RNs. More than half (56 percent) were below the preferred minimum level for total licensed staff, and two thirds (67 percent) were below the preferred minimum level for RNs. In addition, a time-motion study recommended even higher requirements than this multivariate analysis.

NEXT STEPS

While these findings are very troubling and represent a major step forward in understanding the relationship between staffing levels and quality of care, they are preliminary. We are now working to address remaining issues.

The second phase of this research initiative involves:

- evaluating staff levels and quality of care in additional States with more current data;
- validating the findings through case studies and examining other issues that may affect quality, such as turnover rates, staff training, and management of staff resources;
- refining case mix adjustment methods to ensure that any minimum staffing requirements properly account for the specific care needs of residents in a given facility;
- determining the costs and feasibility of implementing minimum staffing requirements and

the impact on providers and payers, including Medicare and Medicaid.

In the meantime, we want to work with Congress, States, industry, labor, and consumer advocates to evaluate ways to ensure that all nursing home residents receive the quality care they deserve. These strategies include staffing levels, improved training, increased dissemination of performance data, or enhanced intensity of survey and certification practices.

CONCLUSION

The research we are unveiling is ground breaking. Its results are troubling, and strongly suggest that many facilities will need to increase staffing levels. We are working diligently to take the necessary next steps for determining how to address staffing issues and improve nursing home quality. This Committee has provided invaluable assistance to us in our efforts to improve quality and protect residents in nursing homes. And we look forward to working with you again on this important issue as we move forward. I thank you again for holding this hearing, and I am happy to answer your questions.

###

The CHAIRMAN. Did you feel pushed for time? What I mean is that usually, we have longer statements from people from the——

Ms. DEPARLE. I have been told that before—you were about to say "bureaucrats," weren't you? [Laughter.]

The CHAIRMAN. Yes. But if you have said all you want to say——

Ms. DEPARLE. I think I have said what I want to say. As I mentioned, this is an 800-page draft report. As you know, this hearing was put together rather hurriedly because the draft report got out a little bit before we expected, and I am not going to be prepared to go into page 650 and talk about details. I think that is why our investigators are here.

The CHAIRMAN. And we do not have to do that.

Ms. DEPARLE. So I just hit the high points, and I am telling you that we are committed to working with you.

The CHAIRMAN. My smart-aleck colleague just said that maybe I was not ready to ask questions. [Laughter.]

Ms. DEPARLE. Somehow I doubt that; and I think he is ready, anyway.

The CHAIRMAN. First of all, this report is very ground-breaking. Is it safe to say that this report has settled once and for all that an adequate number of staff is associated with better quality of care for residents?

Ms. DEPARLE. Yes, Senator, I believe it is. And, I suppose to be more technical, what you would say is that it shows that below a certain minimum level of hours of nursing care per patient, there are more problems. We will want to do more work with you if you want to get to what is an optimal level.

There are others who have tried to do that work—the National Citizens' Coalition for Nursing Home Reform and others have tried to do that work—and maybe we can use our methodology to get to that level.

The CHAIRMAN. I am probably asking you to repeat what you just said, but does this lead us, then, to a point where this report shows us that there is a minimum threshold below which residents are at risk, then?

Ms. DEPARLE. From my understanding of it, yes, sir, I believe it does.

The CHAIRMAN. OK. It is difficult for me to overlook the fact that we could be way ahead of the curve instead of way behind the curve if this report had been completed in a timely fashion. In other words, if it had been done by 1992—which I know was before you came to office—we would have had a long time to correct many of the things that are wrong.

This was requested 2 years ago, and President Clinton has had the request for 8 years. Do you agree with me that we are behind the curve, then, when it comes to staffing, and if so, what can we do to speed up the second phase of this report so we do not stay behind the curve?

Ms. DEPARLE. I guess I have a couple of responses to that. First of all, not only was I not there in 1992, but the Clinton Administration was not there. I want to make that clear. You did ask for the report to be delivered in 1992. I do not know why it was not. I can only speak for the time since I have been there, and when we began our work on this—I learned that it had not been done when

we started working on the Nursing Home Initiative in early 1998, when I began to look at the question of has the vision of OBRA 1987 and the regulations that the Administration issued in 1995 achieved better quality in nursing homes. And as you know, we made a report to Congress in which we said in some ways, yes, in some ways, no, and we need to move forward more aggressively.

So as part of that, we did the contracts with the researchers who were here in the fall of 1998, and we have moved forward very quickly.

Now, I will also say that it is not just the Bush Administration and the Clinton Administration that had trouble getting this work done. As part of our work, we did an extensive literature review of what was already out there on this issue. The Institute of Medicine looked at it a few years ago, and they were unable to get to the point that we have gotten to today. Part of the reason is because the data was not available. They needed individual data on individual nursing homes and residents. And because of the minimum dataset that we have instituted in nursing homes across the country that allows you to track results of individual residents and whether they get bedsores and that kind of thing, we have had the data that the investigators needed to do this research.

So I would agree with you—my staff knows that I am always impatient and always want things faster than they can seem to get them done—but I am committed to getting this done, as I know you are, and I hope we can work together to do it.

The CHAIRMAN. Then, can I ask specifically what we can do to speed up the second phase of this report so that we do not continue to remain behind the curve—the recommendation part.

Ms. DEPARLE. I would say that I am having intensive discussions with my staff on how quickly we can get this done, and I will be talking to your staff about that as well.

We are looking at aspects of this that we do not need to do now, that we can do later. Frankly, I am looking at would more funding make a difference, and I suppose I should not say that with the research contracts in the room, and I am looking at a lot of different things.

I know you want it; I want to get it done, too.

The CHAIRMAN. In HCFA's development of Medicare reimbursement rates in the form of RUG categories, of course, it takes into account how much staff time is needed. Could you discuss in layman's terms the methodology that is used here—and what I am most interested in hearing from you about is whether or not the levels accounted for in methodology of getting to the rate match with the amount of care actually delivered.

Ms. DEPARLE. Well, this is a complicated issue, and I will try to describe it in layman's terms, but I am not sure if I will be able to. I may need to supply some additional information for the record. But it gives me a chance to make a point that I want to make sure the committee understands.

Medicare is responsible for only about 9 percent of funding to nursing homes. Most people assume that it is much larger. Medicaid is more like 65 percent of the funding, so the biggest part of the funding comes from Medicaid, and there is a small amount of private pay.

For Medicare's part, we are now operating and paying nursing homes under a prospective payment system which was part of the Balanced Budget Act, and it does use something called "resource utilization groups," or RUGS, as the chairman talked about. A component of that payment, about 25 percent of it, is for staffing. And the way they constructed that was by looking at around 1,700 nursing homes around the country which, by looking at their survey and certification data, were found to have few deficiencies.

They then used that data to determine how much time they spent on staffing, and from that tried to get a proxy for how much funding of the prospective payment system should go for staffing.

If I understand your question, Mr. Chairman, I think you might be asking me whether those levels in the Medicare payments match up to these minimum levels here in this report, and I do not believe they do, because the two things were done on a different track.

The CHAIRMAN. I am also getting at the fact of what we do at the Federal level to try to have this relationship then leads me to what can we do at the State level through Medicaid to get that relationship. But you are saying that we cannot do it just the way we are doing it in RUGs, because our present setup for Medicare may not comport with what you have found this report; is that correct?

Ms. DEPARLE. That is right; and we might want to make adjustments.

The CHAIRMAN. So we may even have to look at Medicare as well as what we are trying to do newly in Medicaid.

Ms. DEPARLE. That is right, and I am interested in working with you. You mentioned directing funding to staffing, and we are interested in that as well.

Medicaid does not pay the same way, and the States do not necessarily have a component of their payment that is devoted to staffing.

The CHAIRMAN. If my colleagues will bear with me, I want to follow through on this, because I got this thought going, and I will then give each of you time equal to mine.

Some States have had a staffing relationship with additional funding, kind of a pass-through for direct-care staff. Do you have any thoughts on how the Federal Government could encourage more States to adopt such policies?

Ms. DEPARLE. Well, of course, if States do that in Medicaid, the Federal Government pays its share of the match, so that is part of an incentive. I suppose you could look at a higher match for that, if you wanted to, in the Medicaid program.

We are doing this work ourselves, Mr. Chairman, and want to work with you on it to try to figure out what would be the best way to direct more funding toward staffing levels, and it is a very complicated subject, because even right now in our prospective payment system for Medicare, we dedicate 25 percent of that money to staffing, but we have no way of ensuring that it actually goes to staffing. That is something that I think we need to work with you on and I imagine the States are interested in as well.

The CHAIRMAN. And this is something that I am interested in looking at in the next month.

We have heard representatives from the nursing home industry state that the Balanced Budget Act of 1997 extracted much more money in savings to the Government than Congress intended. They also argue that the reduced reimbursements are part of a recent financial problem with certain members of the industry—this has been referred to by Senator Hutchinson. On the basis of this, they would argue for additional reimbursement this year. The President has recommended something in the ball park of $2 billion over 10 years—that would be reimbursement increases—and it seems probable that Congress will give some replenishment, as I have already stated.

Given what we have learned from this report, shouldn't we seek accountability in the spending of any additional reimbursement that we make available—that is, shouldn't we try to guarantee that any additional money is spent at least in part to help turn around the shortage, which is related to quality of care?

Ms. DEPARLE. Yes, sir, and what the President has proposed are two targeted proposals. One is the market basket, and the other is the therapy caps, which I believe I testified on in front if this committee. The BBA instituted caps on the amount of therapy that could be provided, and I think all of us agree that that did not make sense, so we want to repeal those and postpone them again.

We would hope that if there are discussions about other relief for nursing homes that what we have learned in this groundbreaking report will be taken into account and that we can work together to make sure that any more funding is dedicated to staffing. So we agree with you on that.

The CHAIRMAN. OK. That is what we need to work on, then, in the next few weeks, so that when we come back after Labor Day, when this comes up—and it will come up very quickly and have to be disposed of very quickly—we have something to work on.

This is my last question. Current law stipulates that the Health Care Financing Administration should ensure that nursing facilities maintain "sufficient staffing" to meet the highest practical well-being of residents. As I understand it, this is a requirement in the law—it is not more specific than what is in the OBRA law as I have just stated. So I have two questions.

First, would you agree that HCFA has the authority to determine whether particular nursing facilities are maintaining sufficient staff levels required by law; and second, will HCFA be in a position, and do you intend when this project is completed, to recommend more specific staffing requirements either for individual facilities or more generally?

Ms. DEPARLE. The answer to the second question is I do not know, because I have not talked to our general counsel about the limits of our discretion or authority. But I can tell you that section that you quoted from the statute—it is just as you said—it says staffing that will enable each resident to have the highest practicable standard of well-being. It is very amorphous—we all know it when we see it. The problem is—and our study makes this clear—that when the surveyors from the States go out, they look at all the issues in the survey protocol and then, at the end of the survey, they are supposed to make an assessment of staffing, and I think that it is very difficult for them to do that without some

tighter standards. So that is an issue here as we look at whether we should move forward with some minimums.

The CHAIRMAN. OK. So you agree that that does give you some broad authority to set staffing levels.

Ms. DEPARLE. That amorphous language I think probably does give us some broad authority, and we use it in the survey process.

The CHAIRMAN. Now, you might read my question to put the burden entirely on your back. On the other hand, if Congress were to start dealing with this, it might take forever to get the job done, and the extent to which you have the authority to do it—whether you have been using it adequately or not, and we are not here to place blame—but if that is your authority, and you can do it by regulation, obviously, you can do it much more quickly and effectively probably than Congress debating it and going through it again.

Ms. DEPARLE. We could argue about whether it is faster to do a regulation——

The CHAIRMAN. And that does not necessarily mean you as director; that could mean a new Administration next year. I am just trying to nail down what you feel your authority is—whether you exercise it or not is one thing, but if you feel you have that authority.

Ms. DEPARLE. And my answer, sir, is that I do not know. I would have to consult with my general counsel.

The CHAIRMAN. OK. I guess I would like to have you consult with your general counsel and provide us with an answer in writing.

Ms. DEPARLE. I will do that.

The CHAIRMAN. Thank you.

[Information follows:]

As I mentioned, the statutory language is quite expansive. While it does not specifically direct the agency to set minimum staffing levels in nursing homes, we believe the language is broad enough to authorize us to do so. In particular, Section 1819(b)2 of the Social Security Act directs that, "a skilled nursing facility must provide services to attain or maintain the highest practicable physical, mental, and psychosocial well-being of each resident. . ." (emphasis added). Additionally, Section 1819(b)4(C) mandates, "a skilled nursing facility must provide 24-hour licensed nursing service which is sufficient to meet nursing needs of its residents" (emphasis added). We believe this language provides the flexibility for us to set standards ensuring patient needs are met.

Senator Hutchinson.

Senator HUTCHINSON. Thank you, Mr. Chairman.

I want to follow up on where you were heading. I agree with you—I think it would be a close call about who would be quicker. If it took 8 years to get the report, I am not sure HCFA would get a regulation in place for minimum staffing requirements before Congress could act. It would be close; we are pretty slow, too.

Ms. DEPARLE. And there are also lawsuits over things like this. So I think we would have to work together on it.

Senator HUTCHINSON. In the report, you actually cite the general requirement that nursing homes must provide sufficient nursing staff to attain or maintain the highest practicable well-being of each resident. My understanding is—and correct me if I am wrong—that in 1999, the Clinton Administration issued further

guidance, new guidance, to inspectors on how to determine whether a nursing home has sufficient nursing staff ratios to meet residents' needs.

Is that correct?

Ms. DEPARLE. I am not familiar with that, no.

Senator HUTCHINSON. OK.

The CHAIRMAN. He may be referring to the July 1998 initiative which I do not think was directly related to staffing ratios but was related to doing more enforcement of the regulations to enhance quality of care.

Ms. DEPARLE. We have provided a lot of guidance, Senator, on deficiencies and on a lot of different issues, as part of our Nursing Home Initiative. I am not aware that we provided more guidance on staffing.

Senator HUTCHINSON. Since I just received the report, I have not read it all, but I am told that conclusion is that there is actually no way currently to determine whether homes are in compliance with the vague general Federal requirements regarding sufficiency of staff.

Would that sound reasonable?

Ms. DEPARLE. What I remember reading is that as part of this report, they went out and looked at the survey processes and talked to surveyors. I thought the conclusion was that it was extremely difficult using that amorphous standard of "highest practical well-being" for a surveyor to figure out whether staffing is an issue or not.

Sometimes, they do cite staffing, so some of them have figured it out enough to do that. But I think that what we are saying is that it is too amorphous to be of real use to the surveyors in Arkansas when they are going out to nursing homes.

Senator HUTCHINSON. Staff just told me that HCFA has made adjustments to their survey protocol regarding staffing requirements.

Ms. DEPARLE. As I said, I am not aware of it.

Senator HUTCHINSON. All right. But if in fact you cannot now determine compliance due to the general nature of the requirement, if you had a specific minimum requirement how would you be able to enforce it? Is there a sufficiency of inspectors?

Obviously, I understand that it is a very general requirement, so it is difficult to even nail down whether nursing homes are actually in compliance in this area or not; but were Congress or were HCFA to implement a specific staffing requirement, how would that be enforced?

Ms. DEPARLE. I assume it would be in the nature of a condition of participation, so that in order to participate in the Medicare program—Medicaid—a facility would have to have at least a minimum staffing level. And again, there are many things we need to debate about this, because if you set a minimum, does that drive some of the homes that might have been doing better down to the minimum? There are always issues like that. But if you set a minimum, then the surveyors when they went in would look for those minimum ratios. They go in and get the records on the day they go in, they see how many residents there are, and then they would compare that with the number of nurses' aides and the number of

R.N.s. It would be a much more methodical process than the one now.

Senator HUTCHINSON. Are those surveyors directly contracted by HCFA, or are they through the States' department of long-term care?

Ms. DEPARLE. Each State does this for the State. So for instance, in Arkansas, the Arkansas—I guess it is the department of health—has a bureau that does survey and certification, and they go out and do it, and we pay them on the part of the Federal Government for our part of it.

Senator HUTCHINSON. And presumably, with specific staffing requirements, it would not change any of the enforcement needs; it is not really going to change that issue?

Ms. DEPARLE. Well, some people have argued that it would make it easier, because now, what they have to make an assessment of is so amorphous. Let me be clear, though. I do not think we have enough money to do this job right now, and that is why I was thanking the committee at the beginning for trying to help us give more funding here. And the States will tell you the same thing; they think that to do an adequate job of these surveys, they need more funding, and this committee has been part of trying to help us get that.

Senator HUTCHINSON. The investigation involved three States. If Congress or HCFA, for that matter, came in with specific staffing requirements—you are really saying it is going to be a one-size fits all approach. Are there different needs in different areas or are staffing requirements, or at least minimum staffing requirements, so basic that they are going to be universally applicable?

Ms. DEPARLE. I believe they are basic and that it would be universally applicable, but let me make two caveats. One is—and this is something that our researchers can explain in more detail and better than I can—there is an issue of case mix adjustment. What that means is that in any given nursing home, the care needs can vary slightly—not, I think, radically, but slightly—based on the type of residents who are there. So if you had a nursing home with people who were more acutely ill, you might need a higher ratio of certain types of nurses' aide or whatever staffing than you would in one where people were relatively better off. That could change over time, and that is one of the complex issues here.

The other thing is that I believe that what I have seen—and again, I urge you to ask the researchers—I believe they chose these States and chose nursing homes which were representative, but I knew this question would be asked, and that is why, we are right now broadening it to look at other States to make sure that if the Congress does decide to move forward, you can look at this and feel like it is fair to Arkansas if the data is from other States, or that it is fair to Montana, because while I do not think nursing homes differ that much from State to State per se, I know that each State is different and that you feel that acutely, and I want to make sure we have a basis to agree on here.

Senator HUTCHINSON. I have one final question. In that second phase or that second study that will be done, will you also be addressing the funding issue or how much it would cost to achieve those kinds of staffing ratios?

Ms. DEPARLE. Yes, because as I said, OBRA 90, when you requested this study, you said that you wanted to know about the feasibility. I believe that cost is an issue in feasibility, so we will be talking about how much it would cost.

Senator HUTCHINSON. Thank you.

Thank you, Mr. Chairman.

The CHAIRMAN. Senator Burns.

Senator BURNS. I just have on question about something that came up in the conversation, and that is about the case mix issue. You can understand what our problems are in Montana, and whenever we start setting those standards for staffing levels, the first question is how are we going to pay for it under the present structure. So I would ask what methods are you looking at to address this case mix issue. I think the methodology is going to have a lot to do with what kind of report we get.

Ms. DEPARLE. Yes, Senator. Again, I would defer to our researchers who are here and are going to appear after me to answer that. But what we are trying to do is make sure—and this is the thing that I think other reports, like the one that the Institute of Medicine did, were not able to solve—but what Dr. Kramer has done is look at different cases mixes so as to adjust this data so it is representative and valid across different types of nursing homes. It is probably the principal issue here, and I encourage you to ask more questions about it to them.

Senator BURNS. It is very important to us, especially in rural areas, because we probably have a higher preponderance of those kinds of situations.

Ms. DEPARLE. I believe you do.

Senator BURNS. When do we start this study?

Ms. DEPARLE. We have already started the second phase, but we are in the process of trying to get the first report up to you, which involves getting it cleared in the Administration; and we were in the middle of that when this came up. So we are giving it to you early, but we have already started the second phase.

Senator BURNS. And of course, some of the information in this one—this is not rocket science work—we are talking about what the problems are with staffing levels, and it boils down to money more than anything else, and the hours, and this type of thing, and the conditions. So I will be looking forward to the second phase. I think it is going to be very, very important and is going to tell us a lot about what our responsibility is going to be and maybe given us some guidelines on what we think has to be done in order to correct some of these situations.

So I thank you for the study, and that is the only question I have, Mr. Chairman. I thank you.

The CHAIRMAN. Thank you.

Senator Reed.

Senator REED. Thank you very much, Mr. Chairman.

Thank you very much for your testimony, Ms. DeParle. We already evaluate the quality of nursing homes—your agency does it continuously and find that many of them are deficient and without any measure of approaching staffing levels is that correct?

Ms. DEPARLE. Yes. We do surveys on a yearly basis under the law, and we do find a lot of deficiencies.

Senator REED. It raises the ultimate issue—whether or not we impose staffing limits. Yet, we still have the issue of the outcome measures to determine whether patients are doing well, whether they are being properly cared for, and that is not going to change with mandatory staffing levels.

Ms. DEPARLE. Actually, I agree, except that what I think is groundbreaking about the study that we are talking about today is that for the first time, it does link up quality of care and staffing. So I want to make that clear, because sometimes we are criticized for having—the nursing home industry says, oh, it is just a bunch of boxes that you check off, and it is all process—this is something that would really be related to quality, and that is why it is important to work together on this one.

Senator REED. Right. No one is disputing that, but the point I am trying to make is that you already have enforcement mechanisms to ensure that quality is assured in nursing homes, and several studies by GAO and others have recommended that you use these instruments—termination from the program, civil penalties. Could you comment on where you are—and I recognize that it can be a very difficult decision because in many places, the nursing home might be the only facility in that neighborhood or in that region, and even if the quality is not up to your expectations, you still have a compulsion to keep it operating. Could you please comment on how effective your strategies for utilizing your existing authority have been improved to increase quality?

Ms. DEPARLE. I would say this. I think we have been more aggressive in imposing penalties for deficiencies and doing surveys on an unannounced basis and trying to be very clear with the industry that we are serious about meeting the Federal standards. I think you can see that—and we already heard Senator Burns say that he had heard complaints about it—I think we have been more aggressive—and I think the GAO has said that.

Having said that, you are right—it is difficult in some situations, where it is the only nursing home in an area—or even if it is not, that is the home for 70 or 80 people, so it is a very difficult balancing act between terminating that home if it does not meet Federal standards or doing everything you can to keep it open. And frankly, I have been involved in some where we have done the latter—we have done everything we can to try to keep it open, to help them meet the standards.

I would prefer to be in that mode, but that requires much more intensive resources than we have right now. It requires us working, getting the nursing home to hire a temporary manager, bringing in other resources. It is a much more difficult thing, and it is something that I think we have not achieved at this point.

Senator REED. With this approach, have you sensed not only an increased awareness in the industry but better results? Do you have data to show that in fact this enforcement strategy is working?

Ms. DEPARLE. Yes. In fact, we have a report that we are doing for this committee that gives you some preliminary idea of the results. And yes, I believe we have seen some positive results. It is, however, an area that is very difficult to track because it is hard to show that having more attention to this has prevented problems;

but I believe that it has. And I also want to commend the industry because I think they have taken it seriously. They do not want this to be a combative relationship between us and them or the Congress and them, and they have taken it seriously, and I think we have made some progress. We have a long way to go.

Senator REED. An issue that has come up repeatedly is the extra cost associated with mandatory staffing levels, and that is obviously a burden on the industry that they have to internalize in their cost structures, which would be daunting. I think it should be pointed out again that you would also have additional costs if you seriously wanted to enforce these staffing levels and ensure that nursing homes are living up to them, but you would also presumably have more enforcement actions as well. Are you anticipating this increased cost and coming back and making sure that we give you not only the mission but the dollars?

Ms. DEPARLE. Yes, and as I mentioned before, Medicare pays for about 9 percent of nursing home care. Medicaid is the big actor here at 65 or so percent. So this is an issue for the States as well and for us. We pay half of that.

There is a relationship between staffing and funding. Our analysis does not seem to indicate that Medicare is the major problem here, but Medicare should pay its fair share, and we want to work with this committee and with the Congress to make sure that it does.

You could also argue, Senator—and I do not know how this comes out—but if staffing is a factor in problems in nursing homes and in the health care problems that nursing home residents experience, like bedsores and other things, and if minimum staffing levels will help to reduce that, one could argue that enforcement might not have to be as aggressive if we were able to get to that point.

Senator REED. In your analysis, will you confront questions like that as you go forward?

Ms. DEPARLE. Yes, and that is why this second phase of the study is something that I think is important, because you asked us to look at the feasibility of this. Feasibility means cost, it means how easy it is to implement this, what will the States do to enforce it, what will we do, what will it cost the Federal Government—all those issues are things that we have to consider.

Senator REED. Let me raise a final question, and this might be technical so that you may wish to defer it, but I am curious as to how you arrived at these guidelines for Federal standards—12 minutes a day of care from a registered nurse. That seems to me—someone who is far-removed from the daily operations of nursing homes—to be not a lot of time for someone in a nursing home—12 minutes of care.

Ms. DEPARLE. Remember that the study—and this is Dr. Kramer's work, so I encourage you to ask him in more detail about it—but the study actually added up to almost 3 hours of care from all of the nursing-related staff. That 12 minutes was registered nurse care, and again I encourage you to ask him, but I assume that that means if you were in the nursing home looking at Senator Reed's record, seeing what developed for him that day, going in and taking a look at him to make sure that it looked consistent to you—and

it might be that for a registered nurse, that is all that is necessary. Now, Professor Schnelle found something slightly different. His numbers were a little bit higher. So I encourage you to ask them about that in more detail.

Senator REED. Thank you, Nancy.

Thank you, Mr. Chairman.

The CHAIRMAN. Thank you, Senator Reed.

I have no further questions, but I do want to say two things in closing. No. 1, I would recognize again for people who may not have heard me the first time that you did reshuffle your schedule to come here today, and we appreciate your cooperation in making the preliminary draft available to us, although the necessary signing off has not happened yet. But again, and even more important than that compliment, I think you have made a big difference in moving the inspectors and the industry to consider again the quality of care, based upon all the activity you have taken since 2 years ago—and maybe you deserve credit for even before that, but at least that was when I first got involved was 2 years ago. And I suppose advocates for nursing home people would say that we still have not done enough, and I think you and I would agree to that, but we have a process in place that I think is moving us in that direction, and this hearing is part of that process. So I thank you very much and ask you to keep up your good work. Also, we may have some questions for you to answer in writing as well as from other members who are still here, or who had to leave, or from members who could not come at all.

Ms. DEPARLE. Thank you, Mr. Chairman, and I want to thank this committee again for your attention and vigilance over this really important issue.

The CHAIRMAN. Thank you.

Senator Lincoln just arrived, and she may not have questions of you, but if she does, I would like to have you wait for her, but I have no more questions.

Senator Lincoln, do you want to ask questions of HCFA?

Senator LINCOLN. No, Mr. Chairman. I just want to thank the witnesses for being here and for your important input on this very critical issue, and hope that as we get the final pieces of this report, we will better be able to deal with it here in the committee. I appreciate the chairman's interest in it.

The CHAIRMAN. Thank you.

Thank you, Ms. DeParle.

The CHAIRMAN. I have already introduced our investigators, the researchers who are here from Colorado and California. If you would come forward, please, and remember that our practice here is to include your lengthy, very comprehensive statement in the record as you submit it, and we would ask you to summarize so that we can go to questioning.

Dr. Kramer, since you were the first one I introduced, we will start with you.

STATEMENT OF DR. ANDREW KRAMER, PROFESSOR OF GERIATRIC MEDICINE AND RESEARCH DIRECTOR, CENTER ON AGING, UNIVERSITY OF COLORADO HEALTH SCIENCES CENTER, DENVER, CO

Dr. KRAMER. Thank you, Mr. Chairman and members of the committee.

I am pleased to present to you the work that our University of Colorado research team conducted on this important issue of nursing home staffing. We were charged with designing and conducting the analyses to determine whether there is some ratio of nurses to residents below which nursing home residents are at increased risk of quality problems.

We were assisted with this work by other researchers from Abt Associates, Fu Associates, a national panel of technical experts, and our HCFA project officer, Marvin Feuerberg. Congress and HCFA should be commended for their strong support of this work.

We drew three conclusions from our analysis which I will discuss in my testimony. First, staffing levels or thresholds below which facilities are at substantially greater risk for quality problems do exist and can be identified for all types of staff. Second, these thresholds are dependent on the characteristics of the residents in the facilities, which is termed "case mix." And third, staffing levels will need to be increased in a substantial portion of facilities to improve quality of care.

Before discussing these findings further, let me make a brief comment about the methods used. This was the largest and most rigorous study of the relationship between staffing and quality of care conducted to date, involving data on more than 1,800 nursing homes from three States.

Staffing data were obtained from Medicaid cost reports rather than the OSCAR system, which is the usual source of staffing data and the one used on the Medicare.gov website, because analyses of the OSCAR data conducted in this project demonstrated inaccuracies in OSCAR staffing information. Unique features of these analyses were the range of quality measures studied and our attempt to find specific thresholds below which quality was impaired.

Turning to our conclusions, first, we found clear and strong relationships between quality of care and specific staffing levels for registered nurses, licensed staff, including both R.N.s and licensed practical nurses, and certified nurses' aides. Nurse staffing levels were associated with hospitalizations for potentially avoidable causes including pneumonia, urinary tract infection, sepsis—which is a life-threatening and bloodborne infection—congestive heart failure, and dehydration. But in addition, staffing levels were associated with longer-term nursing home problems such as new pressure sores that occur in immobilized and disabled nursing home residents; inability to improve and maintain function in basic activities such as dressing, getting out of bed, and using the toilet; whether residents resist care—a problem that is likely to increase when staff do not take the time or care in assisting residents with eating and daily hygiene—significant weight loss, and poor hygiene.

We were able to find staffing levels below which facilities were two, three, four, or more times as likely to have significant quality

of care problems in these areas. The magnitude of the quality differences between facilities that met certain staffing levels and those that did not meet these staffing levels were surprisingly large.

For example, consider two groups of nursing homes. The first group is staffed such that individual residents receive at least 120 minutes of nurses' aide time per day; whereas the second group is staffed such that residents do not receive 120 minutes per day.

Our analysis showed that only 2 percent of the facilities in this first group had a high rate of avoidable hospitalizations. In contrast, 22 percent of facilities that had the lower staffing levels had a high rate of avoidable hospitalizations.

Now, I ask you—if you had to go to a nursing home, would you rather go to a nursing home from the first group or the second group? One in 50 facilities in the first group had problems with hospitalization, whereas one in five nursing homes in the second group had problems with hospitalization.

Second, the characteristics of residents in a facility must be taken into consideration in setting staffing levels. That is, facilities that take care of residents with complex care needs require higher staffing levels than facilities that take care of residents with less complex care needs.

For example, if a nursing home admits a large number of individuals with chronic lung disease or difficulty swallowing, both of which increase someone's risk for pneumonia, this nursing home will need to staff higher to take care of these patients and avoid hospitalization for pneumonia. This will require more licensed staff to monitor the resident's breathing so that if it gets worse, problems can be addressed immediately.

From certified nurses' aides, more time will be required to assist residents who have difficultly swallowing with eating in order to avoid aspiration, where partially digested food ends up in the lungs, causing pneumonia.

Similarly, if the nursing homes admit individuals who are confined to bed and immobile as well as incontinent, more staff time is required to reposition and keep these residents dry so that pressure sores do not occur. While this relationship between staffing and resident characteristics or case mix is logical, we had to demonstrate that different levels of staffing are required to assure quality in facilities treating residents with more complex needs.

We were able to demonstrate this. For example, in facilities with residents requiring the least complex care, we found that a minimum licensed staff level of 40 minutes per resident each day resulted in 2 percent of facilities having a high rate of avoidable hospitalizations. Thirty-one percent of similar facilities with less than 40 minutes of licensed staff had a high rate of avoidable hospitalizations.

However, in facilities with residents needing moderately complex care, a minimum level of 48 minutes per resident each day was required to reduce the percentage of facilities with high avoidable hospitalization rates.

Forty minutes per resident each day was not sufficient in these facilities. In the group of facilities treating residents with the most

complex needs, 60 minutes of licensed staff time reduced the percentage of facilities with a high rate of hospitalization to 6 percent.

Thus, the minimum levels of licensed staff per day to improve quality were 40 minutes per resident for the facilities with the least complex care needs, 48 minutes per resident for facilities with moderate care needs, and 60 minutes per resident for facilities with the most complex care needs.

We found similar progressions in staffing levels for R.N.s—about 18 minutes per resident day were required in facilities treating residents with the least complex care needs, in contrast to 35 minutes in facilities treating residents with the most complex care needs.

The second challenge is how to group facilities into these categories based on the residents they treat. We made progress in this area. However, categorizing facilities and designing regulations that reflect appropriate staffing levels for different categories of facilities is not a simple matter. Nevertheless, we would be doing a disservice if we were to implement a minimum staffing regulation that disregards such differences in the types of residents the facility treats. In short, a single minimum standard would be too low for some facilities and too high for other facilities.

Our third conclusion was that significant numbers of facilities fall below the levels required for improved quality of care. For example, 54 percent of facilities did not meet the standard of 2 hours of certified nurses' aide time that we found to be a minimum standard even in facilities treating the least complex residents. If such standards were implemented nationally, 54 percent of facilities would have to increase their nurses' aide time.

Registered nurse time would need to be increased in at least 31 percent of facilities in order to meet the most minimal standards in the facilities treating residents with the least complex care needs.

When we tested lower thresholds to determine whether quality might be improved by more modest increases in staffing, we generally found that lower levels of staffing were not associated with similar quality improvements. Thus, substantial investment in increased staffing will be necessary to bring about quality improvements.

Despite the thoroughness of these analyses, the specific staffing levels identified in this report are not ready for national implementation. I ask you not to grasp onto the staffing levels in this report. A sample of facilities from three States is not sufficient to set national standards. Methods for grouping facilities so that minimum staffing can be appropriately matched to mix of residents need to be refined.

Other important attributes of staffing such as staff turnover, staff training, and staff allocation among units or shifts in nursing homes must be taken into consideration before national policy can be drafted. All of these issues are being addressed in a second phase of the project.

Allow me to leave you with two final thoughts. First, we definitely need a method for assuring that higher levels of staffing are provided in nursing homes in order to improve quality of care.

Second, while there is a need to proceed expeditiously, we must take care at this stage to design an approach that is fair to both residents and facilities and is feasible for successful implementation.

Thank you.

The CHAIRMAN. Thank you, Dr. Kramer.

[The prepared statement of Dr. Kramer follows:]

Testimony of: Andrew Kramer, M.D.
Professor of Geriatric Medicine
Research Director, Center on Aging
University of Colorado Health Sciences Center

Mr. Chairman and Members of the Committee:

I am pleased to present to you the work that our University of Colorado research team conducted on the important issue of nursing home staffing and its effect on quality of care. We were charged with designing and conducting the analyses to determine whether there is some ratio of nurses to residents below which nursing home residents are at substantially higher risk of quality problems. We were assisted with this work by other researchers from Abt Associates, Fu Associates, a national panel of technical experts, and the HCFA Project Officer Marvin Feuerberg. Congress and HCFA should be commended for their strong support of this work.

The existence of a relationship between staffing and quality of care in nursing homes is inherently logical. But this relationship is difficult to demonstrate because of the complexities in measuring quality, the limitations in staffing information, and the differences between facilities in the residents that they treat -- termed case mix. An even greater challenge is to determine the staffing levels that are required to assure adequate quality of care across an array of measures. These levels are likely to vary across facilities, with facilities that treat more complex patients requiring higher minimum levels than those treating less complex patients.

We were able to draw three conclusions from our analysis, which I will discuss in my testimony:

1. Staffing levels (or thresholds) below which facilities are at substantially greater risk for quality problems exist and can be identified for all types of staff;

These thresholds are dependent on the characteristics of residents in each facility (or case mix);

Staffing levels will need to be increased in a substantial portion of facilities to improve quality of care.

Before discussing these findings further, I would like to make a brief comment about the methods used in these analyses. This was the largest and most rigorous study of the relationship between staffing and quality of care conducted to date; it involved data on more than 1800 nursing homes largely from three states. Staffing data were obtained from the Medicaid Cost Reports rather than the OSCAR system, which is the usual source of staffing data, because analyses in this project demonstrated substantial inaccuracies in the OSCAR staffing data. Unique features of these analyses were the range of quality measures studied and our attempt to find specific thresholds below which quality was impaired.

Taking the conclusions of the analysis one at a time:

First, we found clear and strong relationships between quality of care and specific staffing levels for registered nurses (RNs), licensed staff (including both RNs and licensed practical nurses), and certified nurse's aides. Nurse staffing levels were associated with hospitalizations for potentially avoidable causes including pneumonia, urinary tract infections, sepsis -- a life-threatening blood borne infection, congestive heart failure, and dehydration. Staffing levels were also associated with new pressure sores -- a problem that occurs in immobilized and disabled nursing home residents when not adequately treated; inability to restore function in basic activities such as dressing, getting out of bed, and using the toilet; likelihood of residents resisting care -- a problem that is likely to increase when staff does not take the time or care in assisting residents with eating and daily hygiene; significant weight loss; and poor resident hygiene. We were able to find staffing levels below which facilities were two, three, four, or more times as likely to have significant quality of care problems in these areas. The magnitude of the differences between facilities that met certain staffing levels and did not meet these staffing levels were surprisingly large.

For example, if we have two groups of nursing homes. The first group is staffed such that residents receive at least 120 minutes of nurse's aide time each day; whereas facilities in the second group do not have sufficient staff to provide 120 minutes of nurse's aide time to each resident per day. Our analysis showed that only 2% of the facilities in the first group had a high rate of avoidable hospitalizations. In contrast, 22% of those facilities that had the lower staffing levels had a high rate of avoidable hospitalizations. If you had to go to a nursing home, would you rather go to a nursing home from the first group or the second group? One in fifty facilities in the first group had problems with hospitalization; whereas more than one in five nursing homes in the second group had problems with hospitalization. Similarly, 12% of facilities in the higher staffed group had a significant rate of new pressure sores, but 46% of facilities in the group with less than 120 minutes of nurse's aide time per resident had a high rate of pressure sores. Although increased staffing will not cure all of our quality of care problems in nursing homes, these findings leave no doubt about the importance of adequate staffing in nursing homes.

Second, the characteristics of residents in a facility (case mix) must be taken into consideration in setting staffing levels. That is, facilities that take care of residents with complex care needs require higher minimum staffing levels than facilities that take care of residents with less complex care needs. For example, if a nursing home admits a large number of individuals with chronic lung disease or difficulty swallowing, both of which increase someone's risk for pneumonia, then this nursing home will need to staff higher to take care of these patients and avoid hospitalization for pneumonia. This will require more licensed staff to monitor the resident's breathing so that if it gets worse, problems can be addressed immediately. From certified nurse's aides, more time will be required for assisting someone who has difficulty swallowing with eating to avoid aspiration, where partially digested food ends up in the lungs, possibly causing severe pneumonia. Similarly, if the nursing home admits more individuals who are confined to bed and

immobile as well as incontinent, more staff time is required to reposition and keep these residents dry so that pressure sores do not occur. While this relationship between staffing and resident characteristics is logical, our first task was to demonstrate that different levels of staffing are required to assure quality in facilities treating residents with different needs.

We were able to demonstrate this. For example, in facilities with residents requiring the least complex care, a minimum licensed staff level of 40 minutes per resident each day resulted in only 2% of facilities having a high rate of avoidable hospitalizations. Thirty-one percent (31%) of similar facilities with less than 40 minutes of licensed staffing had a high rate of avoidable hospitalizations. However, in facilities with residents needing moderately complex care, a minimum licensed staff level of 48 minutes per resident each day was required to reduce the percentage of facilities with a high rate of avoidable hospitalizations to 6%. Forty minutes per resident each day was not sufficient. In the group of facilities treating residents in need of the most complex care, 60 minutes of licensed staff time reduced the percentage of facilities with a high rate of hospitalizations to 4%. Forty-eight minutes was not sufficient. Thus, the minimum levels of licensed staff per day to improve quality were 40 minutes per resident for facilities with the least complex care needs, 48 minutes per resident for facilities with moderate care needs, and 60 minutes per resident for facilities with the most complex care needs. We found similar progressions in staffing level requirements for RNs. About 18 minutes per resident day were required in facilities treating residents with the least complex care needs, in contrast to 35 minutes in facilities treating residents with the most complex care needs.

The second challenge is how to group facilities into these categories based on the residents they treat. We made progress in this development during the project. However, categorizing facilities and designing regulations that reflect the appropriate staffing levels for different categories of facilities is not a simple matter. Nevertheless, we would be doing a disservice if we were to implement a staffing minimum regulation that disregards differences in the types of residents that facilities treat. In short, a single minimum standard would be too low for some facilities and too high for other facilities.

Third, significant numbers of facilities fall below the levels required for improved quality of care. For example, 54% of facilities do not meet the standard of two hours of certified nurse's aide time that we found to be a minimum standard even in facilities treating the least complex residents. If these standards were implemented for all facilities, 54% of them would have to increase their nurse's aide time. About half of these facilities provide less than 96 minutes of nurse's aide time per day to each resident, which would require substantial increases in nurse's aide staff. Registered nurse time would need to be increased in at least 31% of facilities in order to meet the most minimal standards in the facilities treating residents with the least complex care needs. Substantially higher rates will be required in facilities with greater needs, affecting larger numbers of facilities. When we tested lower thresholds to determine whether quality might be improved by more modest staff increases, we generally found that lower levels of staffing were not associated with improved quality. Thus, a fairly substantial investment in increased

staffing will be necessary to bring about quality improvements in nursing homes.

Despite the thoroughness of these analyses, the specific staffing levels identified in this report are not ready for national implementation. A sample of facilities from three states is not sufficient to set national staffing levels. Methods for grouping facilities so that staffing minimums can be appropriately matched to the mix of residents need to be refined. Without categorizing facilities in this manner, we risk requiring minimum staffing levels that do not ensure quality in any facilities except those treating residents who require the least care. Other important attributes of staffing such as staff turnover, staff training, and staff allocation among units or shifts in nursing homes must be taken into consideration before national policy can be drafted. All of these issues are being addressed in a second phase of this project that is currently underway.

Allow me to leave you with two final thoughts. First, we definitely need a method for assuring that higher levels of staffing are provided in nursing homes in order to improve quality of care. Second, while there is a need to proceed expeditiously, we must take care at this stage to design an approach that is fair to both residents and facilities, and is feasible for successful implementation.

Now we turn to Dr. Schnelle.

STATEMENT OF JOHN F. SCHNELLE, BORUN CENTER FOR GERONTOLOGICAL RESEARCH, LOS ANGELES JEWISH HOME FOR THE AGING, UCLA SCHOOL OF MEDICINE, LOS ANGELES, CA

Dr. SCHNELLE. Thank you very much for this opportunity to testify, Mr. Chairman.

My research team was given a different task than Dr. Kramer. We were asked to try to project the nursing aide resources necessary to implement care and to produce good outcomes. This is kind of the flip side of Dr. Kramer's approach, which looked at what level must staffing fall below for bad outcomes to happen. So it is good outcomes, bad outcomes, and it would not be surprising that we would come up with higher staffing estimates to implement good care than Dr. Kramer came up with to prevent bad care, and we did.

The way we approached this task was to identify five care processes which are fairly simple to implement and which I think everybody would define as human care. Just to give you an illustration, we tried to look at care processes like how much time does it take to toilet and change incontinent residents; how much time does it take to reposition people who are immobile to prevent pressure sores; how much time does it take to provide feeding assistance to people who have low intake or who cannot feed themselves; and how much time does it take to provide exercise to prevent decline.

The criteria that we used in this report to select these processes were several. First, we reviewed the literature to identify care processes that had been specifically linked to positive outcomes if they are implemented—and most of these have been done in controlled clinical trials and form the basis of practice guidelines of what we should do in nursing homes.

The second thing we did to project staffing resources was to insist that there was some information about three critical components of these processes that you need to project what staffing resources are necessary to implement them. You need to know how many residents need them, how much time the care process takes per episode of care, and how frequently the care process has to be implemented to produce a good outcome. All of these care processes met these criteria.

Once we had this information, we used a mathematical model to simulate how much staff time is likely required to implement these care processes in a typical nursing home. I should say that these mathematical models were not developed for this project. These computerized simulation models have an extensive history of use in business and industry, particularly businesses and industries that care a lot about making sure they have enough staff to produce a product. This is not done with happenstance; it is done with a systematic study approach, and we tried to take that systematic study approach for this project.

Our conclusions are as follows. First let me say—and I will come back to this in a moment—if we erred in any direction, it was in the direction of being very conservative. When we did these com-

puterized simulations, for example, we assumed that nursing aides would be working at extremely high productivity levels, very low off-task time, and even with those assumptions, we came to the conclusion that to implement just these five care processes that we looked at, you would need a nursing aide-to-resident ratio of approximately five residents to one aide on the 7 to 3 shift and approximately seven to eight residents to one aide on the 3 to 11 shifts. This translates into approximately 2.9 hours of nursing aide time per resident per day.

We also simulated what would likely happen with these five care processes if nursing homes were staffed a lot lower than this 2.9-hour level, so we also simulated, for instance, what would happen with a 9- or 10-to–1 resident-to-aide ratio in the 7 to 3 shift and about 12-to–1 on the 3 to 11 shift. We chose those numbers simply because a lot of nursing homes report those staffing ratios.

When we simulated what would happen under those conditions, what we found was that basically, even if you assumed that nursing aides never stopped—that they worked at 100 percent productivity—over 50 percent of the residents would still not consistently receive this care. In other words, they would not consistently receive toileting assistance, or they would not consistently receive as much feeding assistance as they need to improve intake.

We think that those simulated conclusions match some of the things this committee has heard in previous testimony, and we think they match some of the observational data reported in the literature, which indicates that toileting assistance, for instance, is done infrequently in nursing homes and that feeding assistance is done suboptimally.

The nursing aide staffing needs that we generated from this particular study were a lot higher than most nursing homes currently have—much higher. In fact, I noticed that in their analysis of this, HCFA indicated that they thought about 92 percent of nursing homes in the country would fall below this 2.9-hour nursing aide standard.

I want to say again—and I think this is an interesting part of the study—that we were very cautious and very conservative in making these estimates. Stated another way, if anything, I think my estimate of 2.9 hours of nursing aide time per resident per day is an underestimate of what is really needed.

When we did this study, one of the notable things that we found was that some of the critical data that you would expect to be there to be able to project these kinds of staffing needs simply were not there.

For instance, one piece of information that hospitals use to project their staffing needs is they estimate how much travel time is required for nurses to get to the residents to even provide the care, or how much time is required to take residents from point A to point B so that care can be provided. It is a big time cost, and that data is simply not there. We had to collect it on a very quick, informal basis, and we made very, very conservative assumptions about how much time is required for that kind of travel time activity. And there are several other areas like that.

I make this point simply by way of saying that it is striking to me that the type of analysis that is needed to figure out how many

people should be there to provide care has not been done in a defensible way because the data is not there in a defensible way. The Senator from Montana said it is not rocket science, and it is not rocket science.

It is a simple question. You have care that you have to provide, and it is not rocket science to figure out how much time it takes to provide it and how many staff you need to do so. But as far as I know, this report that we have done is one of the first systematic efforts to approach it in this way. The very fact that this kind of data is not there I think suggests why we have a problem with staffing in nursing homes; we just simply have not attended to it.

My conclusion is this. I think all nursing homes residents in the country deserve the opportunity to receive toileting assistance if they need it and nutritional care if they need that. I think it represents basic humane care. However, this basic humane care is labor-intensive, and with the staffing levels that currently exist in nursing homes, it is very unlikely that these five care processes can be implemented in a consistent fashion. And even if we increased minimum staffing ratios to 2.0 hours of nursing aide time per resident per day—one conclusion that could potentially be drawn from Dr. Kramer's report—that would not be adequate, either. Many nursing home residents would continue to go without this kind of basic care on a consistent basis.

[The prepared statement of Dr. Schnelle follows:]

MINIMUM NURSING AIDE STAFFING REQUIRED TO IMPLEMENT RECOMMENDED CARE PRACTICES IN NURSING HOMES

We estimated the nurse aide time required to implement five care processes that improve nursing home (NH) resident outcomes. The care practices are relatively simple to implement and define what most would consider "humane" care. The care processes are:

1 Changing or toileting incontinent residents
2 Repositioning immobile residents to prevent pressure ulcers
3 Providing feeding assistance to residents with low oral food intake
4 Providing exercise to prevent decline
5 Promoting the ability of residents to independently dress themselves.

We selected these five care processes for study using two evidence-based criteria. First, the clinical research literature provided evidence that the care process improved NH residents' clinical or quality of life outcomes. Second, the clinical literature addressed the number of residents who needed the care process, the frequency with which the process should be delivered to these residents and the nurse aide time required to implement the process. Based on this information, we then developed a mathematical model that simulated the process of delivering care to NH residents needing that care.

Simulation is a flexible tool that is especially appropriate for evaluating the effects of the physical layout of a facility, staffing levels, and service (i.e., care process) scheduling on the levels of service provided to care recipients and the associated staff work load. This tool has the advantage of allowing us to model several realistic work scenarios that include such factors as: observed variation in time to deliver a service; travel time from one resident to another; the need to accommodate breaks for staff; the time of day during which some services such as meals must be provided; and the need to accommodate random unscheduled events. In cases where we lacked the necessary data for the simulations we made conservative assumptions. For example, we estimated a low frequency of unscheduled events that required aide time (e.g., cleaning up spills, answering call lights).

The most time efficient staffing model for delivering the selected care processes varied staffing throughout the day and involved a minimum of one aide working with approximately five to six residents on the 7:00 am to 3:00 pm shift; seven to eight residents on the 3:00 pm to 11:00 pm shift; and 26 residents on the 11:00 pm to 7:00 am shift. This "time efficient" staffing model did not consider resident preferences (individualized care) and required that some staff be scheduled to work four-hour shifts during peak work load times (e.g., 6:00 am to 10:00 am). Simulations using aide to resident ratios that are more typically reported by NHs (i.e., 8 - 10 residents to 1 aide during the 7am - 3pm shift) were also conducted and revealed that most residents would not consistently receive the five care processes reviewed in this chapter even if nurse aides worked at unrealistic high productivity levels.

The staffing ratios recommended in our simulation model would, thus, require increased staffing investments in most NHs. Given the importance of these findings, we believe that field tests to validate these staffing requirements should be conducted. Specifically, field tests are needed to

confirm the conservative assumptions that we were forced to make concerning some labor requirement issues and to identify the labor resource implications of scheduling the care processes according to resident preferences. An emphasis on individualized care will likely increase labor requirements even further compared to those we described in this chapter. In addition, field tests are needed to document the resources needed to implement additional care processes and the impact that the efficient implementation of these care processes has on enhancing resident quality of life and clinical outcomes.

In conclusion, we believe that all nursing home residents should have the opportunity to receive the basic care processes that we evaluated in this report. We, furthermore, believe that both current nursing aide staffing or even an increase to 2.0 hours of aide time per resident per day will not allow either humane and/or effective care to be implemented.

The CHAIRMAN. We thank you very much, and we particularly appreciate the Health Care Financing Administration, since you are the contract researchers, for you to be able to participate in our hearing so that we can get right from the grassroots the points of view that we need to hear on determining quality of care.

There has been a lot of research done in this area, in no way reaching the level of in-depth and quality that you folks have done, and I might be giving you an opportunity to brag about your work to some extent, but what about this report is most groundbreaking? In other words, what do you believe are the most important findings of your staffing studies?

Let us start with you, Dr. Kramer, and then turn to Dr. Schnelle.

Dr. KRAMER. The other studies that have been conducted—and there have been some good studies—have been on a smaller scale and with fewer measures of quality. They have looked at quality in fewer ways than we addressed quality in our projects.

The results in those other studies have been mixed, in part because methods have not always been as rigorous because they have not had the opportunity to use some of the staffing data, for example, that we were able to use, or the quality of care measure information that we were able to use. So they have actually had mixed results in a number of these different studies.

Furthermore, other studies were not designed to look for thresholds. It is very different to say is there some kind of overriding relationship where, as staffing goes up, quality improves. But what we were looking for was if there were cut points; are there places where, as you improve, you get a big increase in quality, and is there a next point where you get a big increase in quality. Those thresholds were what we were really trying to target, and work to date has not really examined that.

The final point is, as the Institute of Medicine raised, the need to address case mix. Other studies really have not dealt with case mix and case mix categories very effectively. Unless we address that issue of whether staffing levels differ for different types of facilities, then we really cannot set staffing minimums.

The CHAIRMAN. Dr. Schnelle, do you want to add to that?

Dr. SCHNELLE. It is hard not to talk about why my research is good, I guess. I cannot say much more than Dr. Kramer said, other than the fact that I think in our part of the study, the most striking thing to me is the type of approach we took to this—which, remember, is an accepted standard approach used in many areas of business and industry to project staffing levels—simply has not been done in the nursing home area.

One can certainly argue with some of the assumptions and numbers that we generated in our simulations to project how much staff should be there, but the point is these are resolvable problems. The approach that we took should provide a very definitive answer about what the staffing resources, or at least nursing aide staffing resources, are in a nursing home to implement care that we all consider to be, I don't think optimal, but good.

The CHAIRMAN. OK. Much has been said about the significance of this new study; yet, as conscientious researchers, you are each aware of the limitations of any research that is done. That said, what are the methodological limitations of the report, and what

further research and analysis will be necessary before you would be in a position to make recommendations based on research?

For instance, the findings in this report are based on a large but limited sample of nursing facilities in three States. To what extent of the results of the report are generalized to the entire universe of the nursing facilities in the States?

Dr. KRAMER. From the perspective of the empirical work that we conducted, the issue of those three States that you just raised is a good one. We found some differences in our findings across the three States. Everything that we found in Ohio was not consistent with what we found in New York, which was not consistent with what we found in Texas. All of the States are in fact different. They have different Medicaid environments, and there are different practice patterns in the States. So the State differences are very important in this kind of analysis. That is why we need to go to a larger number of States.

I wish that ultimately, we could examine nursing home levels in all 50 States, and I do not think that is going to be feasible, but the second phase of this is intended to sample States very carefully so that we get States with different characteristics.

One of the reasons these three States were chosen in fact is that they were collecting MDS data in 1996 and 1997 when we did the study, which was before the prospective payment system was implemented. They are part of the demonstration for that payment system. So they are atypical in that regard.

So again, we really need to go beyond those States. That is one issue.

The second major methodologic issue is case mix classification. Although it has been alluded to that this is not rocket science, in health services research, that problem of adjusting for case mix, with all due respect, is a very complicated problem. No one has a real clear method for doing it. We made considerable progress in developing an index that worked for our analysis, but we certainly need to spend more time refining such an index.

The CHAIRMAN. Dr. Schnelle, on that point, if you want to add, but also, are there other methodological limitations that we should know about?

Dr. SCHNELLE. The methodological limitations are pretty well outlined in the chapter I wrote, but I do not consider those major hurdles. They are correctable. We had to make a lot of assumptions because there is missing data about how nurses' aides work and what time demands there are on them. I could generate that data within a year or two and come up with very defensible models, I think, for what nursing aide staff is required to have met good care.

I think there is a bigger problem, though, and it is not a methodological limitation, but it is one that we are going to have to consider sooner or later. One issue is making sure there are enough people there to provide the care. That is a fairly easy issue to solve. What is not so easy to solve is how you manage them once they are there.

All the models that we generate assume pretty high productivity. Now, creating that high productivity with a nursing aide workforce that is paid like we pay them know, and who, for that matter, are

pretty unavailable because of work shortages, is a much more difficult issue, and it is uncertain how much of an improvement in outcomes we will get just by increasing staff ratios without combining staff ratios with much more systematic and organized management.

The CHAIRMAN. Senator Lincoln.

Senator LINCOLN.

Senator LINCOLN. Thank you, Mr. Chairman.

I have just a couple of questions. Obviously, we have not had a great deal of time to go over this full draft report—it was embargoed until just this morning—so we are hoping that we will have further discussions about this, Mr. Chairman, when we continue in September and to continue our working relationship with all of you.

Just skimming through it, I did see that Arkansas was listed as one of the States with the more demanding standards for staffing, and I was proud of our State for being a little progressive in those areas. I know that just last year, our legislature passed a new staffing requirement law for Arkansas nursing homes. So we are moving in some of those directions to ensure a lot of what your studies are bringing to our attention.

Dr. Schnelle, just a brief question. A New York Times article that appeared last Saturday about your report stated that staffing levels at a nonprofit nursing home were higher than for-profit nursing homes. I do not know if you addressed that before I came.

Dr. SCHNELLE. No, it has not been addressed.

Senator LINCOLN. But can you give an explanation or perhaps a reason for that?

Dr. SCHNELLE. Maybe Dr. Kramer can. That was not part of my report, actually. It was part of the HCFA report. But that was not data that I generated, so I cannot comment on how that data was generated.

Senator LINCOLN. Dr. Kramer.

Dr. KRAMER. I am afraid I also was not part of that portion of the analysis, so it is not an issue that I can speak to.

Senator LINCOLN. This is the beginning of our research, isn't it, Mr. Chairman? We will find that answer somewhere, I hope.

The CHAIRMAN. Yes, but you could submit that to Director DeParle for response.

Senator LINCOLN. Good. I am sorry I missed her testimony earlier.

Dr. Kramer, at the medical school in Arkansas, we have a new center on aging called the Donald Reynolds Center which will officially open in September, and we are very excited about it. I have worked closely with Dr. David Lipschitz there and others to support their efforts. I think that certainly, the Center on Aging is going to be an enormous benefit to us in Arkansas as well as nationwide, and also to our medical school and the training in geriatrics.

For that reason, I am interested in your perspective—when you talk about hours needed from the staff, in the research that has been done and the studies that are there, as far as the medical professionals in the nursing homes, what is their training in terms of age-specific illnesses? Do they need additional training? Are we fo-

cusing enough on what their actual duties are specific to the aging population in that we are giving them the proper training to be able to go in and do the job in the appropriate amount of time? Certainly, I would think that would have a bearing on whether they are able to do the job and in what amount of time they are able to do it.

Dr. KRAMER. I think you raise a very good point. One of the issues in geriatric medicine in terms of medical staff training is that it is not a usual site of training for geriatric medicine faculty. Some medical schools have programs where they use the nursing home as a site where they help train individuals to take care of older persons, but others never set foot in a nursing home in the entire years of their medical training, unless somebody happened to walk them through while they were a medical student.

That is a definite weakness in our system. I think similarly the same can be said in nursing care, and that is a field that I am less acquainted with, but not all nursing schools have a large program of training in nursing home care. Without that very clear professional path for both medicine and nursing, it will not become an established profession. I think it is required. What has happened in nursing homes in this day and age is that we are taking care of people who are much sicker than they used to be, with much greater needs, and more is required.

Senator LINCOLN. And not only in that, but also in terms of—I am wondering if your study accounts for—when you talk about hours per resident per day, does that take into consideration a caregiver who has been there for one year or 10 years, someone who is just on the job or has only had a year or two of experience, or someone who has spent 10, 20 years in the nursing home or caring for the aging so that you begin to understand how long it takes to take an individual to receive the care.

I have toured an awful lot of our nursing homes in Arkansas and have come to the realization myself that there is a lot more involved in that caregiving.

Dr. KRAMER. There is a lot of variation, and those things need to be taken into consideration in setting any standards, because standards have to be much more than just listing the hours.

Senator LINCOLN. Certainly. Are they taken into consideration in these studies?

Dr. SCHNELLE. We did not.

Dr. KRAMER. No.

Dr. SCHNELLE. We erred in the direction of assuming everybody knew exactly what they were doing and were working at extremely high productivity levels—which, of course, ignores the reality that turnover rates of nursing aides are 50 or 60 percent. You are always dealing with people who do not know what they are doing and who cannot do things with maximum efficiency. So that is just one other area where we erred in the direction of saying let us assume the best-case scenario.

I might also mention that Dr. Cornelia Beck at the Reynolds Center on Aging is doing this kind of research as well.

Senator LINCOLN. Thank you.

Thank you, Mr. Chairman.

The CHAIRMAN. You should pursue that issue of how the Health Care Financing Administration came to some conclusions about nonprofits versus for-profits versus Government-run nursing homes or care facilities.

Senator LINCOLN. Yes, Mr. Chairman. We will submit a question in writing.

The CHAIRMAN. I will be interested in knowing what the answer is.

Senator Wyden.

Senator WYDEN. Thank you, Mr. Chairman, and I want to commend you, Mr. Chairman, for your leadership and for holding this hearing. I had to be in another hearing for a good part of the morning, but I look forward to working with you as we have so often on a bipartisan basis.

Gentlemen, I am really struck by your report and the discussion. It takes me back to the days when I was Director of the Gray Panthers at home in Oregon. I was Director of that group for about 7 years, and I was the public member on the Board of Nursing Home Examiners at home. What is so striking about your work and so much of what has been done in the last 25 years is that it seems like in the long-term care field, is that this country lurches from one life-threatening problem to another. Good people like you do your analyses, and there is an effort to deal with it, and then, before too long, another life-threatening problem for residents comes to light.

My question to you is what kind of research agenda in the long-term care field would give this country a chance to break out of that kind of reactive mold and allow this country to get out ahead of the curve and predict, if you will, that these are the areas that legislators ought to focus on so that Senator Grassley and the Aging Committee do not find themselves dealing with these reports in yet another set of new, life-threatening problems here shortly down the road.

It just seems to me that that is the choice for the country—either we come up with that kind of forward-looking research agenda to get out in front of some of these problems, or you just play catchup ball again and again and again, which is essentially the history of this field.

Would either of you like to take that on?

Dr. KRAMER. Well, certainly, one aspect of it that comes to my mind is, actually, clear initiatives on research in long-term care. Long-term care and nursing home care is still the part of the health care system that is left-out-in-the-cold. It only surfaces when an issue gets big enough that we react, and there is not much of a proactive process for even obtaining grants and conducting studies in nursing home research.

So I think that one definite approach could be some clear, open solicitations for studies in the nursing home field.

To target those I think that probably quality of care is going to continue to be an overriding issue, and how one produces quality of care in an environment with more limited constraints. There will always be resource limitations in nursing homes, so management practices, as Jack referred to, and other ways in which the nursing homes themselves can improve their quality need to be studied in

a proactive way so that we can actually develop methods for preserving quality of care in nursing homes.

So I think some open initiatives in nursing home care, first of all, to really encourage nursing home research, and second, a real focus on methods to improve quality that are usable and feasible.

Dr. SCHNELLE. If I could comment, and I will try to make a very specific recommendation to your question. I thought about it as Andy was talking.

In the past 10 or 12 years, the National Institutes of Health in particular has spent a lot of money developing interventions and protocols that we know work and improve quality of life and clinical outcomes in nursing home patients. There is just one problem. These protocols—many of which I developed, unfortunately—have largely not considered the cost of implementing these in the actual nursing home setting. In other words, they have not actually considered the labor cost of how these things could be implemented and who is implementing them and whether those people are capable of implementing those things.

What I am saying is that there is a gap between what medical researchers do and how applicable that knowledge is to the nursing home field as it stands right now.

My specific recommendation to your interesting question would be to establish a new research approach where there would basically be nursing home research sites established whose major purpose, whose only purpose, is to take interventions that we know work from the health care community and try to make them work in a nursing home for the purpose of deciding what barriers there are to doing that, and for the more important reason, perhaps, of determining the staffing costs of doing that. If that were done 5 or 10 years ago, we perhaps would not be having this hearing today.

Senator WYDEN. So you would take in effect the entire health care landscape and say, when you see a promising development, that one of the areas that Congress ought to look at in terms of research funding would be its applicability in the long-term care field?

Dr. SCHNELLE. That is right.

Senator WYDEN. That is an interesting idea. It also dovetails nicely with my view of modernizing The Older Americans Act. As you know, people like Dr. Rowe in New York have done some very good work in terms of prevention and trying to reduce the incidence of institutionalization. In effect, he is almost saying the same thing, that when you see promising developments in the health care landscape, like in the preventive area, you ought to integrate it into aging programs.

I would hope that you two—and I would make this offer—as leaders in the field would help catalyze a movement among researchers to look at this issue in this kind of way, because I think the Congress would be very receptive to funding such an approach. I do not think Andy meant it this way—Congress is not going to just say, come one, or come all, here is a bucket of money, and open up a set of solicitations. But I think if the research community came forward and said, look, if you all will help us dig into the following areas, we believe that we can head off the next wave of problems as it relates to even some of the issues that we have

talked about here today—the lack of research on turning individuals, moving patients, and the like.

I would be very receptive to seeing research papers like that, and I think they would be well-received by the Congress and that Congress would look favorably on funding them.

I have known about your good work, both of you, for some time and in fact have used it in speeches and the like. I really appreciate your being here, and I thank you, Mr. Chairman.

The CHAIRMAN. Thank you, Senator Wyden. You are very active in the work of this committee, and I appreciate it very much.

There are obviously some benefits for residents in requiring some kind of minimum staffing levels, but isn't there also some risk in identifying minimum staffing levels—for example, would a uniform minimum level be appropriate for all facilities given the wide range of patient population?

Dr. KRAMER. I would say definitely there is, and that is why we need to move toward case mix categories where we have different minimums for different categories of facilities. I agree that a minimum that applies to facilities with the lowest mix of individuals is not an appropriate minimum for a facility that has a much more complex mix.

The CHAIRMAN. Would that be part of the goal of phase two of the study, to address these limitations; and are each of you involved in the next phase of the study?

Dr. KRAMER. That is one of the goals of the next phase, yes.

The CHAIRMAN. And you are involved with that?

Dr. KRAMER. Yes.

The CHAIRMAN. As are you, Dr. Schnelle?

Dr. SCHNELLE. I believe so, yes.

The CHAIRMAN. OK. As long as you are involved in the next phase of the study and not just on the limitations that I spoke about, could you estimate how long it could take before you could reach a point at which levels for various case mix populations could be known?

Dr. SCHNELLE. For the simulations that I did, this could be done easily within a year.

The CHAIRMAN. Easily within a year?

Dr. KRAMER. And I think for the data analysis work that we are talking about, a year would be the timeframe that we would be talking about.

The CHAIRMAN. And would that also be true for the optimal levels of staffing?

Dr. SCHNELLE. That is pretty much what I came up with for nurses' aides; yes, I think so.

The CHAIRMAN. Did you have a medical definition for optimal levels of staffing, and if you did, what is that?

Dr. SCHNELLE. There was no definition. We defined "optimal" in our particular study by defining care practices that the research literature said works, produces a positive outcome. All the care practices that we looked at are also recommended in practice guidelines. And I should also say that they are part and parcel of OBRA regulations as far as what we should do in nursing homes anyway. So we did not have a lot of trouble defining optimal care with the five care practices that we used.

Our only problem was—and this is where people will criticize us—that we excluded things that should be done from our analyses that would constitute optimal care because they did not meet our criteria of being documented in the research literature to have proven outcome. We used very strict criteria.

The CHAIRMAN. What is the increase in staffing, then, that is necessary to meet that optimal level?

Dr. SCHNELLE. If you believe our very conservative assumptions, it is 2.9 hours of nursing aide time per day, which in one of HCFA's tables I saw would require increases in staffing in 92 percent of nursing homes in the country.

The CHAIRMAN. In your studies, what did you determine to be the magnitude of understaffing—or, would that be the 92 percent figure?

Dr. KRAMER. In the optimal-level scenario, I think that is what Jack was talking about. In our scenarios, we based it on avoidance of bad outcomes in nursing homes—the notion that there were no detectable quality of care problems was what we were looking for. Our numbers are somewhat lower, based on, this first cut but 54 percent of facilities were going to require increases in their certified nurses' aide time, and about one-third of facilities were going to need increases in their R.N. time.

Those numbers are based on three States, so the best I could do is say for those three States, that is what I would conjecture, not nationally.

The CHAIRMAN. Much of the research on nursing home quality of care relies on the OSCAR data system. Could you comment on the reliability of that data? I think one of you did touch on it to some extent, that in these three States, they got it early, and you considered it fairly reliable. Is that right?

Dr. KRAMER. Actually, no. For our study, a portion of the analysis was conducted by Abt Associates, where they compared both OSCAR data and Medicaid cost report data with payroll data, which is believed to be an accurate gold standard of nursing home staffing information. They found that the OSCAR data was in fact limited in its accuracy, particularly for nurses' aide time and particularly when you looked at facilities at the low end of staffing.

So it is particularly weak for nurses' aide time and particularly weak on the low-end staffing, so we used Medicaid cost report data for our analysis, not OSCAR data.

The CHAIRMAN. OK, then, if it is not reliable, have you just described for me that it paints a picture that it is really worse than what the data show or better than that?

Dr. KRAMER. It is not entirely clear. What seems to be is at the low end, it shows that staffing levels are in fact higher than they really are.

The CHAIRMAN. In regard to what we are talking about, then, has work begun on phase two?

Dr. KRAMER. Yes, the work has begun on phase two.

The CHAIRMAN. OK. The study suggests that Medicaid cost report data is more reliable than OSCAR data. What are the factors that affect the reliability of these two datasets?

Dr. KRAMER. The OSCAR data is largely based on facility-reported data. The Medicaid cost report data is used for reimburse-

ment, paying Medicaid dollars. So the Medicaid data used are much more and usually when a data system is used for reimbursement purposes, its accuracy improves.

The CHAIRMAN. Since we have to have reliable data to make good public policy, do you have any suggestions for how to improve the reliability of this data?

Dr. KRAMER. Yes certainly, more thorough auditing procedures. The other thing about the Medicaid cost report data is that Medicaid cost reports are audited. OSCAR data could be audited in substantial ways.

Dr. SCHNELLE. I do not believe—is it audited now at all, the OSCAR data?

Dr. KRAMER. Not to speak of.

Dr. SCHNELLE. I am not sure the OSCAR data is audited for accuracy at all; if so, I think it is done in a pretty informal way.

The CHAIRMAN. So, are you suggesting that it ought to be audited?

Dr. KRAMER. Yes.

Dr. SCHNELLE. Yes.

The CHAIRMAN. I thank you for your testimony and for the work that you have done on this and presumably the work that you will continue to be doing in this area until recommendations are made. This hearing was called on very short notice, and I thank you as well, as the director for responding. Obviously, it is not as broad in being able to listen to as many witnesses as we should, but we have this 1-month recess of Congress coming up now for the Democratic and Republican Conventions and summer break, so we will be back in September. In the meantime, I am going to keep the record open for 2 weeks for additional statements from interested parties; and because of the limited witness list, I would like to invite other stakeholders to submit comments on the report that HCFA has provided us today and on any other matter that they believe has a bearing on this staffing issue.

I have also invited a number of groups to submit additional questions which I may wish to submit to our witnesses, which means you two, for response in writing, as well as from Director DeParle. I would like those questions to be submitted to us within 2 days of this hearing; in that way, I hope to compile a more complete hearing record in case we follow up with hearings in the month of September that are more formal.

Thank you all very much for your kind attention.

The meeting is adjourned.

[Whereupon, at 11:30 a.m., the committee was adjourned.]

APPENDIX

FORTNEY PETE STARK
THIRTEENTH DISTRICT, CALIFORNIA

CONGRESS OF THE UNITED STATES
HOUSE OF REPRESENTATIVES
WASHINGTON, D.C. 20515

COMMITTEES:
WAYS AND MEANS
JOINT ECONOMIC

STATEMENT OF REP. PETE STARK (D-CALIF.) SENATE AGING COMMITTEE HEARING ON "NURSING RESIDENTS SHORTCHANGED BY STAFF, PART II" JULY 27, 2000

The HHS staffing study that is the subject of today's hearing will do much to advance discussion and debate in Congress about what is wrong with the way we provide care for 1.6 million nursing home residents today.

It is inexplicable that the federal government provides tens of billions of dollars in funding for federally-certified long-term care facilities, while getting absolutely no guarantee that enough of this funding is spent on high-quality direct patient care.

Nursing home residents are among the most physically fragile and medically complex in our health care system. In any well-organized and logical system, this argues for a carefully constructed, low ratio of nursing staff to patients. Yet what we have today, according to the first phase of a two-part HHS analysis, is a study that says roughly half of all long-term care facilities fail to provide a minimum level of 2.9 hours of care a day. Perhaps more importantly, the study finds that only about 40% of facilities provide what HHS calls a "preferred minimum level" of care, defined as 3.45 hours of care by nurses and nursing assistants per day.

Clearly we must work to eliminate understaffing in nursing homes. Developing consensus on how to remedy staffing problems will take hard work on the part of Congress, states, labor representatives, reform advocates, and the long-term care industry. And yes, it will take money.

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The first step in this process must be accountability. I commend Sen. Grassley for holding this hearing today, and for commissioning a major report from the General Accounting Office on how and where we are currently spending our long-term care dollars. Accountability is also at the heart of legislation that I introduced in June, the Nursing Staff Accountability and Training Improvement Act (H.R. 4614). The bill proposes to:

- improve the accountability of skilled nursing facilities in providing nursing staff for which they are reimbursed under Medicare and assess the adequacy of Medicaid reimbursement for direct patient care;
- require posting of staffing information by nursing facilities and by the Secretary;
- require HCFA to produce a comprehensive study on how to improve training for certified nurse aides;
- establish a series of grant programs under Medicare to improve the quality of care furnished in nursing facilities through funding model centers of expertise in training of licensed and unlicensed staff; funding to help nursing homes retain workers in medically underserved areas; funding for model workplace safety programs in nursing facilities; and funding for implementing "best practices" models that can reduce the incidence and prevalence of incontinence and pressure sores among nursing home residents.

I urge my colleagues to embark on a thoughtful debate about policies that will begin to transform the picture of understaffing we see in HHS' analysis to one in which every nursing home resident is guaranteed that there is always sufficient nursing staff available to provide excellent care.

July 27, 2000 CONTACT: BERNA DIEHL (202) 326-1726

Statement of Dr. Charles H. Roadman II

President and CEO of the American Health Care Association

On

The Staffing Shortage in Nursing Facilities

I commend Senator Grassley and the Senate Special Committee on Aging for their oversight and interest in the complex issues that have impacted providers' ability to deliver the highest quality care to our nation's elderly and disabled.

The yet-to-be released study of skilled nursing facility staffing that is the subject of today's hearing, will likely chronicle the negative outcomes that can take place when staffing is insufficient in long term care facilities. No one knows these effects better than the providers who spend their lives giving care and trying to improve the lives of our patients.

Rather than simply shining a light on the problems we face, The American Health Care Association (AHCA) would like to play a positive role by illuminating the many critical steps that policy makers should consider in addressing and resolving the complex problems inhibiting the delivery of high quality care.

The following is a list of proposals we offer that may serve as a starting point for providers, patients and families, and government to work together to improve care:

1) Address the shortage of available labor. Among the possible labor pool solutions are:

- Allow specially-trained workers to supplement CNA care (H.R. 4547).
- Increase available Registered Nurses by enacting the H1-B visa bill (S.2045).
- Create grants to providers to recruit and retain essential workers and nursing staff.
- Fund upward mobility scholarships to create expertise in care specialties, such as Alzheimer's care, nutrition and skin care.
- Enhance the work opportunity tax credit to encourage more hiring from public assistance pools.
- Stabilize the workforce by modifying citizenship rules and ending INS employer sanctions.

2) Update the Medicare market basket index, which is based upon 1992 labor rates;

3) Enact Medicaid payment adequacy provisions so that states must pay rates that at least meet the cost of providing care;

4) End punishment of facilities that takes away their ability to train nurse aides when violations are unrelated to that training; and

5) Fix the oversight system that seeks punishment at the expense of quality improvement.

- Use outcome-oriented, data-driven measures to evaluate the quality of care and quality of life and to guide providers to measurable improvement.
- Allow inspectors to make suggestions and mention best practices for improvement.
- Use fine money to fix the problems that are cited.

AHCA and the provider community look forward to working in a positive, collegial manner to accomplish what we all seek, and that's to provide the best possible care to America's seniors.

I think that the attached editorial from the *Minneapolis Star Tribune* describes the dynamics we see nationally, and is an excellent analysis of the diagnostic issues for the symptoms being felt in long term care. They ought to be the basis for the dialogue toward improving quality of care.

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TOUR ST. PAUL

SELL IT FOR LESS. A LOT LESS.

Editorial: For proper nursing home staffing, change policies

Wednesday, July 26, 2000

Federal health officials don't mince words in their new report describing the consequences of understaffing in America's nursing homes: Understaffing leads to bedsores, malnutrition, dehydration, preventable injuries and infections, hastened deaths. But by early accounts, the as-yet-unreleased report to Congress by the Department of Health and Human Services is less clear about why so many homes are short-staffed. That may be because a leading culprit is government itself.

The combination of tightfisted Medicare and Medicaid spending and hyper-regulation by state and federal governments has contributed much to the nursing home staffing crisis. Those policies have held down salaries while adding the burden of complicated paperwork to jobs that are already physically and emotionally draining.

Many licensed nurses find they can make more money and do more actual nursing elsewhere. Many nursing assistants find comparable wages and benefits at their neighborhood Wal-Mart. The report makes clear that quantity of care, i.e. the hours of direct contact between nurse and resident, has dangerously diminished as a result. Yet just as worrisome, especially in a state like Minnesota, is erosion in the quality of care.

Minnesota's staffing requirements are stiffer than those in most states, and are better at accounting for the varying mix of patient needs from one nursing home to another. But those requirements have not spared Minnesota's homes from high employee turnover, risky hiring decisions, overuse of temporary employees and over-reliance on nursing assistants rather than licensed nurses to provide care. Some nursing homes are demanding double shifts from employees to meet the state's required minimums.

Minnesota's nursing home industry has been saying aloud for several years that its difficulty hiring and keeping employees is putting residents at risk, and crimping the availability of care. The industry has won several supplements to worker salaries from the Legislature, only to have the state's tight labor market counteract those gains. Last year, according to Care Providers of Minnesota, nearly a third of the state's 430 homes refused to admit new residents at least once because of inadequate staffing.

The Clinton administration is overdue in telling the nation how serious this problem has become. But federal officials need to tell the whole story, and own up to government's role in creating it and correcting it. Simply recommending an unfunded mandate for more staff is not good enough.

The same goes for the Minnesota's long-term care task force, which continues its work with a meeting today. No proposal it develops will be complete unless it includes a strategy for assuring Minnesotans that if and when they ever need a nursing home, it will be properly staffed.

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American Association
of Homes and Services
for the Aging

Contact: William Bruno, (202) 508-9413

July 27, 2000 FOR IMMEDIATE RELEASE

Statement of

AAHSA President Len Fishman

on

DRAFT HCFA REPORT ON MINIMUM NURSING HOME STAFFING LEVELS

Having examined the information contained in the draft HCFA report on minimum nursing home staffing levels, the American Association of Homes and Services for the Aging today announced its support for the development of minimum nursing home staffing levels with reimbursement necessary to attain those levels.

Len Fishman, AAHSA President, released the following statement on the draft HCFA report:

"As religiously-sponsored, governmental, and other non-profit providers we have a moral obligation to draw a line in the sand about where minimum staffing levels should be. We have been setting the standard for years, even in the face of inadequate reimbursement and an extremely difficult labor market. Indeed, the HCFA report finds that, "staffing was much higher for non-profit and government facilities." Non-profit and government facilities exceed each of the proposed minimum levels for nurse aides, registered nurses and licensed practical nurses.

"As this report strongly suggests, however, state and federal governments are failing *their* moral obligations to provide funding to reach even minimal staffing levels. The report notes that "all of the nation's public payments for nursing homes have been driven by historical spending patterns" based on inadequate staffing levels. More specifically, the federal government has failed its *legal* obligation to provide reimbursement so facilities can provide optimal staffing defined as "sufficient nursing staff to attain or maintain the highest practicable...well-being of each resident." Now that the federal government is considering adopting staffing standards, it must accept its responsibility to provide a significant infusion of funds to pay for these levels of care. Unfortunately, federal policy is driving the system in the opposite direction. As the report suggests, the repeal of the Boren Amendment in 1997 has contributed to "downward pressure in nursing home payment rates."

"This report should spark a national debate about adequate staffing and adequate reimbursement. As a first step, we should look at the minimum staffing levels necessary to provide adequate care. But Congress and the President should proceed immediately to work with providers and consumers to determine staffing levels necessary to provide optimal care, and commit to dedicating the necessary resources. Our parents and grandparents deserve nothing less. And we should not have to wait another 10 years to complete this work.

"In the meantime, the federal government immediately should target financial support to nursing homes that are earning it by providing higher numbers of staff in direct care areas.

"The report finds, and we agree, that as important as staffing levels are, they are but one element in providing adequate quality of care and quality of life. Also important, as the report notes, are education, training and supervision of nursing staff, use of nurse practitioners, wages and benefits, career ladders, scheduling, turnover, involvement of families and respect for caregivers. The report cautions that it would be "inappropriate to apply [staffing standards] to individual facilities without considering individual facility case mix." And the report also notes that no existing case mix index has been shown to classify facilities with respect to staffing minimums. Our association is prepared to contribute to this important work.

"The HCFA report, which studied the effect of nursing home staffing levels on the quality of care provided, says that nurse aide staffing below 2.0 hours per resident day is "associated with higher rates of potentially avoidable hospitalizations" and other adverse effects. The report also says that 54 percent of nursing homes nation-wide miss that mark.

"However, not-for-profit nursing homes, on average, are already staffing significantly higher in each of the three key staff areas the HCFA report identifies. The report reviewed suggested staffing levels from several sources and the amounts of time provided by registered nurses (RNs), licensed practical nurses (LPNs), and certified nursing assistants (CNAs). The report itself recognizes that not-for-profit nursing homes already staff significantly higher than the national average. The report says,

> Staffing levels for all three staff types were higher in non-profit than in for-profit facilities, but the difference in the use of RNs was especially large. In both 1998 and 1999, mean RN hours per resident day were more than twice as high at non-profits than at for-profits. LPN hours were 0.14 (about 15%) lower among for-profits than at non-profits. Nurse aide hours were very similar for non-profit and government facilities, and were about 20% higher at these facilities than for-profit facilities.

"No issue in our field is more important than staffing. It should be addressed by Vice President Gore and Governor Bush in the presidential campaign. We have heard them address the future of Social Security and Medicare. The challenges surrounding long-term care are just as urgent and even less understood by the public. It is time to begin a national discussion on what we want the future of long-term care in America to look like. The presidential campaign gives us this opportunity.

"Our current nursing home staffing crisis cannot be solved by simply enacting minimum staffing levels. Providers, government and consumers must also join together to make working in nursing homes more attractive to potential caregivers. No amount of minimum staffing levels or funding will solve our growing staffing difficulties if we do not do more to attract caregivers to this noble and meaningful profession."

AAHSA is the national association of nonprofit long-term care and senior housing providers. Its members include over 5,600 nursing homes, assisted living facilities, continuing care retirement communities, senior housing, and home and community-based service organizations. More than half of its members are religiously sponsored; at the core of the work of all of AAHSA's members is a mission to serve older people by providing the means for them to live with the greatest level of self-determination, dignity and independence possible. AAHSA's Web site is at www.aahsa.org.

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Statement for the Record of the National Citizens' Coalition for Nursing Home Reform on the Senate Special Committee on Aging Hearing On Phase I of the Health Care Financing Administration's *Report to Congress: Appropriateness of Minimum Nurse Staffing Ratios in Nursing Homes*

July 27, 2000

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The National Citizens' Coalition for Nursing Home Reform would like to thank Senator Grassley and the Senate Special Committee on Aging for its timely hearing on the first part of a study that we believe can play an important role in defining how well our society cares for the frail elderly in the 21st Century. Under your chairmanship, Senator Grassley, this committee has continued its historic commitment to addressing poor working conditions in nursing homes, the neglect and abuse of residents, and the need for stronger federal enforcement to ensure quality care. With this hearing on Phase I of HCFA's *Report to Congress: Appropriateness of Minimum Nurse Staffing Ratios in Nursing Homes*, you have begun a process that can lead us to implement a step sought by this body 25 years ago: The establishment of minimum federal requirements for direct care workers to residents.

NCCNHR would also like to express its deep appreciation to Nancy-Ann Min DeParle – who has made improvement of nursing homes such an important focus of her tenure as Administrator of the Health Care Financing Administration – for her commitment to this study. And finally, we would like to thank the analysts at HCFA who designed and managed the study, as well as Abt Associates and its subcontractors who conducted the research.

The first phase of this *Report to Congress* has ended and the second phase is beginning as we prepare to elect a new Congress and a new Administration. We hope and trust that the concluding part of this research will have the same strong support from this committee, HCFA, and the new Administration that Phase I has had.

In addition, we hope that all who receive this report – this Committee, the full Congress, HCFA, the current Administration, and the new Administration that takes office in January – will recognize the findings as a call to action. It is clearly time to establish nurse staffing ratios for nursing homes that want to participate in Medicare and Medicaid, and to hold those facilities accountable for directing adequate resources to recruiting, training, and retaining licensed nurses and certified nursing assistants.

A Long-standing Problem

The new study is not the first congressional report to address the need for nurse staffing ratios in nursing homes. In 1975, the 94th Congress issued *Nursing Home Care in the United States: Failure in Public Policy* with a supporting paper entitled "Nurses in Nursing Homes: The Heavy Burden – The Reliance on Untrained and Unlicensed Personnel." The report said that the (former) US Department of Health, Education and Welfare was "committed to establish ratios of nurses and staff per patient." However, the paper noted, HEW had not done so. "A judgment of how many nurses are needed by a certain number of patients in a nursing home has been balanced against the availability of nursing personnel and more importantly, the cost to the operator," said the report. "Clearly the intent [of the law] is that this issue be resolved in favor of the patients."

Twenty-five years later, the balance still favors the nursing home operator, and we have not resolved the issues related to the costs and availability of personnel. The clock is ticking as the huge Baby Boom generation, currently struggling to find quality long term care for its parents, moves inexorably towards the age when its members will require help from a shrinking pool of caregivers.

In the 1987 Nursing Home Reform Act, Congress called for "sufficient staff to attain or maintain the highest practicable . . . well-being of residents" and provided for 24-hour licensed nurse coverage. But it did not require nursing homes to meet specific staff-to-resident ratios to ensure that there were enough staff to deliver the quality of care the law requires. One result is the anomaly that in 1999, state surveyors cited fewer than 8 percent of nursing homes for staffing deficiencies, in spite of the obvious relationship between substandard care and the performance – or shortage – of nurses and nursing assistants. Another result was that while federal reimbursement to nursing homes doubled (from $24.8 billion to $51.0 billion) between 1990 and 1998, the average number of hours of care residents received from nursing assistants remained flat – at a level that the *Report to Congress* shows is barely sufficient to avoid serious harm.

As the 1975 congressional paper shows, availability of workers was already a concern 25 years ago. While the nursing home industry blames today's short-staffing on the unprecedented strength of our economy and resulting competition for workers, the problem has remained the same in every economic boom and recession for 25 years. When Congress issued *Failure in Public Policy*, unemployment was 8.5 percent, one of the highest unemployment rates in American history. When the Institute of Medicine conducted its catalytic study of nursing home reform a decade later, the unemployment rate was 7 percent; yet the report released in 1986 found that "for the most part there are inadequate numbers of nurses to provide the minimum care needed." The inescapable fact is that in any economy, workers will not remain in jobs in which they are underpaid and overworked. Nursing home understaffing is a chronic, long-standing problem that will not be solved overnight – but will not be solved at all without government action.

NCCNHR applauds your statement, Senator Grassley, that you are unwilling to give the nursing home industry a "blank check" to hire more staff. The American Health Care Association's statement for this hearing offers ample evidence of why we agree with you that any new funds approved by Congress this year should be specifically tied to staff increases. Most of AHCA's solutions to the staffing problem are designed to reduce labor costs and/or weaken current quality standards and enforcement while increasing the amount the taxpayer contributes to nursing homes through Medicare and Medicaid.

NCCNHR Staffing Standards Affirmed

In 1998, in the absence of federal standards, NCCNHR developed a set of recommended ratios of direct care workers (registered nurses, licensed practical nurses/licensed vocational nurses, and certified nursing assistants) to residents. These standards, which

have proved influential as a benchmark for other research and for improving staffing requirements for state licensing, were endorsed by the John A. Hartford Institute this year and are validated by the research conducted as part of this report.

Needless to say, NCCNHR is gratified to see its work affirmed. We are also pleased that in the second phase of the study, HCFA will evaluate the time needed to provide good nursing care more thoroughly than previous researchers have been able to.

We are disappointed, however, that the researchers end Phase I – and we presume begin Phase II – with negative assumptions about the practicality of trying to implement the NCCNHR standards or the optimum ratios in the *Report to Congress*, given current reimbursement rates, wages, and labor market conditions. Unfortunately, a General Accounting Office study of how nursing homes use their money, which may shed light on the adequacy of reimbursement rates as well as inefficiencies and abuses in the use of public funds, has been delayed until early 2001. That study should provide a useful adjunct to the *Report to Congress* in determining whether increases in Medicare and Medicaid are warranted to improve staffing; whether Congress should impose stricter controls on nursing homes' use of public funds; and/or perhaps whether greater efficiencies in the industry would make more money available for staffing.

Whatever the case, we cannot accept that the 30-year legacy of neglect and abuse in nursing homes will continue to be passed from one generation to another. From the research completed so far, we know that more than half of nursing home residents are at serious risk of harm and that hardly any are receiving the quality of care envisioned by Congress in the 1987 Nursing Home Reform Act.

We hope that the final phase of this study will help lead us beyond *current* nursing, management and reimbursement practices and policies to what we need to do in the future to assure quality care.

In the remainder of this statement, we would like to address some other issues and concerns raised by the study, including additional research and government action that we hope will follow from the data collected so far.

The High Cost of Poor Care

The *Report to Congress* correlates nurse staffing levels with avoidable hospitalizations to determine whether there are thresholds of risk to residents. The evidence that congestive heart failure, electrolyte imbalance, respiratory infections, urinary tract infections, and sepsis are related to understaffing is compelling.

For nursing home residents and their loved ones, unnecessary pain, discomfort and death are evidence enough of the need for more direct care staff. For policymakers, we believe Phase II must take this evidence a step further and calculate the financial as well as the human costs of understaffing – what NCCNHR for well over a decade has called "the high cost of poor care."

What was the cost in Medicare and Medicaid claims for those avoidable hospitalizations? How much of the cost of caring for residents was shifted from nursing homes to hospitals because of poor care in the nursing homes? How much of the cost was shifted from Medicaid to Medicare? How much increased reimbursement did nursing homes capture from residents whose payment status changed from private pay or Medicaid to Medicare because they had to be hospitalized?

While it was effective for Phase I to draw associations between hospitalizations for the five diagnoses and staffing levels to show a correlation between understaffing and avoidable hospitalization, researchers in Phase II should consider the costs of other common practices and conditions that result in high medical expenditures. These include chemical and physical restraints, fractures, malnutrition and dehydration, catheterization, and of course, pressure sores, which in 1987 alone cost Medicare $701 million. Excellent research has been conducted on the extraordinary costs related to these problems often associated with staffing shortages.

Other Costs Associated with Understaffing and the Need for Innovation
The *Report to Congress* portrays a vicious cycle in which short-staffing leads to low morale and burnout that result in absenteeism and high turnover rates, which further reduce the number of staff. Turnover and absenteeism clearly are one of the highest costs providers face. Moreover, money that could go into reducing staffing ratios and increasing wages and benefits is instead spent on recruiting and training new workers and employing temporary agency personnel.

NCCNHR has never encountered a provider who said it was easy to stabilize his or her workforce. On the other hand, we know a number who have reduced turnover rates and improved morale and the quality of care they provide residents by thinking beyond current norms.

Chapter 5 addresses "facilities' attempts to stretch existing staff" and Chapter 6 discusses preliminary findings from the unfinished study, *Measures, Indicators, and Improvement of Quality of Life in Nursing Homes*. NCCNHR hopes Phase II will address cohesively the effectiveness of innovations in care that facilities can implement to make nursing assistants' jobs easier, more productive, and more pleasant. There are suggestions in Chapter 5 that a few focus group members work in facilities that are doing this. For example, "One facility required all professional staff to be trained as nursing assistants. These professional staff assisted during mealtimes on a rotating basis, and even assisted in other aspects of resident care during staff shortages." This is an effort that could address the frequent complaint of nursing assistants that lack of teamwork causes low morale. It also provides more skilled workers to give hands-on care and make the nursing assistant's job more manageable. Moreover, it accomplishes this without reducing minimum training levels or incurring the risk that inexperienced workers will provide nursing care, as industry-favored "single task worker" proposals would do.

Achieving optimum staffing levels will require more than setting ratios. It will also require creating an environment in which jobs fulfill a range of worker as well as resident needs.

Quality of Life vs. Quality of Care
In the same vein, we do not agree with Dr. Schnelle that interpersonal communications that occur while nursing assistants provide time-limited care practices are sufficient by themselves to ensure quality of life for residents or reduce worker absenteeism and turnover. Chapter 5 says, "Overwhelmingly, most participants cited the bond between themselves and the residents as the most positive aspect of their jobs and the reason many stayed in the field for so long." Quality of life is enhanced for both workers and residents when there is time for personal interaction.

NCCNHR hopes *Measures, Indicators, and Improvement of Quality of Life in Nursing Homes* will shed more light on this issue and that Phase II will factor in more time for interpersonal relationships between nursing assistants and residents.

Ratios for Licensed Nurses
Additional research is needed to determine optimal levels of licensed nursing care. As Dr. Charlene Harrington has noted in her testimony, only by combining the optimal level of nursing assistant hours (2.9) with the preferred minimum level of RN and LPN hours (1.00) can one achieve something close to the nurse staffing standard endorsed by the Hartford Institute. Twelve minutes of RN hours per resident day would not even provide registered nurses enough time to comply with the minimum requirements of the Nursing Home Reform Act, such as resident assessment and care planning, let alone provide adequate direct care.

Moreover, the 2.9 hours of nursing assistant care deemed to be needed to attain good outcomes is "dependent upon a sufficiently skilled licensed staff to supervise aides as well as other organizational factors." It is not at all certain from the report that the licensed nurse thresholds would provide the level of supervision required for nursing assistants to provide optimal care.

Next Steps
With the concluding chapters of the *Report to Congress* still six months to one year away, there are nevertheless some actions which NCCNHR believes could be undertaken in the next few months to begin implementing certain findings.

Congress

- Earmark Medicare "givebacks" to improve staffing in skilled nursing facilities.
- Institute procedures to ensure that skilled nursing facilities staff at levels anticipated by Prospective Payment rates.
- Require nursing homes to post staffing levels on each unit each day by shift so residents and families have access to the information.
- Oppose quick fixes such as "single task workers" that would weaken current standards.

Health Care Financing Administration

- Take immediate steps to address problems identified by the researchers. These include: (1) inaccuracy of staffing data in OSCAR, including apparent violations by facilities of federal reporting requirements, and (2) low state citation rates for staffing.
- Review survey procedures in view of new evidence that there are minimum levels of nurse staffing below which harm occurs.
- Review whether it can require by regulation the posting of staffing levels within facilities.
- Oppose any legislative proposals, such as single task workers, that would waive or in any other way weaken nursing assistant training requirements.

Future Goals

Given the history of government inaction on staffing standards, it may not be surprising that the *Report to Congress* concludes with the pessimistic view that "the OBRA '87 standard of staffing to provide the highest practicable well-being has a well-intended, but probably unrealistic goal. . ." Our final hope for this study is that it will help point us towards realistic ways to achieve that necessary objective. As a civilized society, we don't have a choice unless we are content with our elders spending their final days suffering from pain, hunger, unnecessary illness and decline, and premature death.

US Senate Special Committee on Aging

"Nursing Home Residents: Short-changed by Staff Shortages, Part II"

Thursday, July 27, 2000

Written Testimony Submitted to the Record By

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Thank you for the opportunity to submit written testimony for the record. My name is Ingrid McDonald, I am a Senior Policy Analyst with the Service Employees International Union (SEIU). SEIU commends the Health Care Financing Administration, Chairman Grassley, Senator Breaux and other members of the Senate Aging Committee for focusing public attention on the staffing crisis in nursing homes.

This testimony discusses the following points:

- **It is essential to focus attention on optimal staffing levels that will ensure quality care rather than bottom level thresholds below which we can expect bad outcomes.**

- **Staffing levels are just one aspect of a web of inter-related problems that make nursing home work unsustainable and endanger quality of care.**

- **Effectively addressing these issues will require increasing reimbursement and holding providers accountable for spending this money on direct care.**

I conclude this testimony with specific recommendations for building in new accountability for investing in staff to the increases in Medicare reimbursement that Congress is expected to pass this fall. *These recommendations include:*

1) **Requiring nursing homes to illustrate that they are staffing at the level for which they are being reimbursed under Medicare.**

2) **Requiring public disclosure of staffing levels and other information about Medicare certified nursing homes.**

3) **Requiring more training for nursing home workers, not less.**

Introduction

SEIU represents more than 101,000 nursing home workers across the country. Our members say that their number one concern about their jobs is that they simply do not have enough time to meet residents needs. The level of guilt and frustration that CNAs experience can be overwhelming. A large percentage of CNAs quit their jobs within the first six months because the workload is unmanageable and the wages are too low. Those who stay do so because they are committed to their residents, even though they could easily find less demanding, better paying jobs elsewhere.

The study that HCFA is discussing today will reinforce what respected academics, the General Accounting Office, the Institute of Medicine, residents and their advocates, and frontline workers have been saying for years: there is a direct and clear relationship between staffing levels and quality of care. As HCFA's study details, without sufficient levels of experienced, well-trained and caring staff, nursing home residents suffer.

Our greatest hope is that this study will convince Congress and the American public that it is time to take dramatic action to address this problem.

A Point of Caution – Resist Focusing on a Bottom-Level Threshold

Based on second hand reports we understand that this phase of the study discusses two distinct staffing levels and their impact on resident care. First, the reported analyzes data which indicating that below 2.0 Certified Nursing Assistant (CNA) hours per patient day, there is a substantially increased risk of bad outcomes such as pressure sores, abnormal weight loss and dehydration. Approximately 54% of nursing homes staff below this threshold level.

In addition, we understand that there is also discussion in this report of a higher, "optimal" staffing level necessary to ensure quality care which is closer to 3.0 CNA hours per patient day. It is estimated that 93 percent of nursing homes staff below this level.

A framework that lays out two key levels - bottom line and optimal - is a dangerous framework because there will inevitably be pressure to dismiss what is optimal and focus instead on the more politically feasible and presumably less expensive bottom of the barrel standard.

This is damaging on many levels. First and foremost, it is inconsistent with current law, which says that residents have more than a right to staffing levels which may prevent bad outcomes. The Nursing Home Reform Law (Obra '87) states that "a nursing facility must have sufficient staff to attain and maintain the highest practicable, physical, mental and psycho-social well being of each resident." Staffing at a bottom line level below which there is a substantially increased risk of poor quality does not meet the spirit of this language.

Secondly, a federal focus on a bottom of the barrel threshold is damaging because it undermines states who are trying to do the right thing. California recently increased their state staffing standard to 3.2 total nursing hours per day and additional increases in state standards will be discussed next year. Many other states, including Connecticut, Delaware, Massachusetts, Missouri are considering increasing their state staffing standards and instituting specific staffing ratios well above the 2.0 threshold described in the report.

For all of these reasons, we appeal to Congress to resist adopting a bottom level threshold as a recommended standard. Instead, we urge you to focus this debate on what the optimal staffing levels should be and the even more difficult question: how we can get there from where we are at now ?

Making Nursing Home Work Sustainable

Strong federal staffing standards are the most important ingredient for ensuring that there will be enough staff present to meet residents needs. SEIU supports a staffing standard of 4.13 nursing hours per resident day, as recommended by a panel of nursing home experts

and supported by the National Citizens Coalition for Nursing Home Reform. This standard recommends specific ratios of residents assigned to each CNA, including a minimum of five during the day shift, 10 during the evening shift and 15 at night.

To build up to staffing at these levels or any new standard that Congress recommends we will need to make nursing home work sustainable and rewarding for direct care workers, which it simply is not today. Turnover rates for Certified Nurse Aides, according to figures self-reported by the industry have been hovering at just below 100% for many years. Public opinion research in Senator Grassley's home state of Iowa that a leading concern for CNAs is working short staffed. Other surveys confirm that short staffing and heavy workloads drive CNAs to leave their jobs out of frustration.

Closely behind short staffing, CNAs talk about low wages as the other key reason that they literally can not afford to stay. Average wages for CNAs are less than $8 per hour. We must find a way to ensure a living wage and affordable health insurance for nursing home workers. Sixteen states have passed Medicaid wage pass throughs, or Medicaid reimbursement increases dedicated for increasing workers wages. In states where SEIU has been involved we have found that there has been mixed success in holding providers accountable for actually passing this money through to workers. Nonetheless we will continue to work with coalition partners to refine these funding mechanisms targeted to improving wages and are eager to also work with Congress to think creatively about federal Medicaid or Medicare policies that might have a similar effect.

Workload and wages stand out as contributing to high turnover but nursing home workers are also burdened by other challenges in the workplace. Inadequate training standards mean most CNAs are not prepared for how to care for residents with highly complex medical conditions, dementia and other eating disorders. Inadequate supervision and a general lack of respect leave CNAs feeling isolated and unsupported on the job.

More and more nursing home workers are choosing to have a voice on the job by forming unions. Unions give workers an opportunity to demand better wages and benefits through collective bargaining and a forum for raising issues, such as being included in care planning meetings for residents, and urging employers to invest in appropriate equipment to prevent frequent back injuries. Unfortunately, workers right to make a choice about forming their own organizations is not respected. Nursing homes who claim that their budgets are tight and they are in financial distress routinely find the funding to employ the services of law firms and consultants who specializing in coach management on how to influence workers on the questions of unionization. This routinely involves the use of mandatory meetings during work hours, which further exacerbates staffing shortages by pulling needed caregivers off the floor.

All of the issues I am describing point to the need to focus first and foremost on staffing standards but at the same time the other related workforce issues that are creating a revolving door workforce that endangers both the continuity and the quality of care.

Adequate Reimbursement Coupled With Accountability
We can't expect nursing homes to dramatically increase their staffing levels and provide significant wage increases to make nursing home work sustainable without changes in reimbursement systems. In many states, Medicaid rates, the biggest funding stream for nursing homes, are barely sufficient to or simply do not cover costs. Government payers are creating a system where poverty level wages and unrealistic workloads are the norm.

Addressing short staffing and the related workforce issues will not be cheap. We are all eager to see the cost estimates that HCFA promises in Phase II of their study. It will not be surprising to anyone that dramatic increases in staffing levels needed to provide quality care will be accompanied by dramatic price tags. SEIU urges HCFA not to resist costing out what their research identifies as truly "optimal" or necessary to meet Obra standards because of the daunting fiscal implications. We must know the price of what should be even if it will take time to get there.

Insufficient Medicaid rates are driving this industry now to operate on a lowest common denominator level, they staff as low as they can get by with and pay wages as low as is possible in this labor market. Simply comparisons illustrate that there is a relationship between reimbursement and staffing levels. Alaska, which has the highest average per diem Medicaid rate in the country also provides a higher level of nursing staff hours to nursing home residents than any other state in the country. Conversely, states such as Arkansas and Louisiana which have among the lowest Medicaid rates also provide the least amount of nursing care hours for nursing home residents.

What is striking is how little variation there is. For example, Alaska's average Medicaid rate is roughly three times as high as average state rate, but their staffing levels are only somewhat higher than than average, 4.6 total nursing hours in 1998 compared to the US average of 3.2 hours according to OSCAR data compiled by Dr. Charlene Harrington of UCSF.

The point I am making is that more money does not guarantee better staffing levels and improved quality. Increases in reimbursement must be accompanied by standards that hold the nursing home industry accountable for how the money is spent. Of first importance here is strengthening staffing standards, and we hope that the study that HCFA is discussing with us today moves us in this direction.

Recommendations: Linking "Medicare Givebacks" with New Accountability

Instituting staffing standards and addressing the related issues of turnover, wages, training and respect are long term policy goals that are becoming increasingly winnable with the broadening understanding that HCFA is contributing to here today about what it takes to ensure quality care. While many of these changes are long term, many are most achievable at the state level and some are best addressed at the individual facility level, there are also steps that this Congress can take immediately to move this debate in the right direction.

You are now engaged in a debate over Medicare reimbursement that will lay the groundwork for future changes. The nursing home industry is lobbying aggressively for "refinements" to the BBA that would cost up to 10 billion dollars. At the same time that they are suggesting that RUG rates under Medicare need dramatic upward adjustment to accurately reflect their costs, the GAO says that these payments are "sufficient and in some cases generous."

However this debate unfolds, we urge you to link any new funding for the nursing home industry with new accountability. We now have very little information on whether Medicare beneficiaries are actually getting the care that Medicare reimburses nursing homes to provide. Under the PPS/ RUGS system, reimbursement levels are based on the acuity level of the residents and the staffing levels deemed necessary to provide this level of care - but no one knows whether or not this is actually the level of care that they are providing.

This fall Congress has an opportunity to set a precedent that there will be no new funding for nursing homes without new accountability that these public dollars are being spent on direct care.

SEIU Offers Three Specific Recommendations

1) Require nursing homes to illustrate that they are staffing at the level for which they are being reimbursed under Medicare.
This could be done simply by requiring facilities to report the total number of nursing staff hours furnished by the facility to all residents, broken down by payer. The Secretary could then compare the actual aggregate number of nursing hours provided to Medicare beneficiaries with the number of staffing hours that Medicare paid through the RUGS system and adjust reimbursement accordingly. (see language in HB. 4614, Stark)

2) Require public disclosure of staffing levels and other information about Medicare certified nursing homes.
Medicare beneficiaries have a right to know what level of care to expect from nursing homes. Posting information on the Internet and at the facility level about the ratios of staff to residents, who owns the facility (whether it is for-profit or non-profit) and the facilities' record of labor violations and deficiencies will enable consumers to shop on the basis of quality. Access to this information will enable consumers and advocates to hold facilities accountable for providing the services Medicare is paying them to provide. (see language in The Nursing Home Quality Protection Act, Waxman)

3) Require more training for nursing home workers not less.
The industry wants to couple new reductions in training requirements with their higher reimbursement levels so they can reduce their labor costs with the use of part-time, lower paid uncertified employees. (HB 4547, Ryan) Experts agree that the existing training requirement for Certified Nurse Aides of just two weeks is already insufficient.[1] Medicare beneficiaries coming out of the hospital requiring post-acute care have very

[1] Cite Nursing Home Coalition of NY Report

high levels of acuity. To ensure that nursing homes are providing sufficient training and oversight to the Certified Nurse Aides who provide this care, Congress should reject the so-called "single task worker" proposal. Instead, Congress should call on HCFA to update the current regulations and require a minimum of 160 hours of training to appropriately prepare CNAs to meet residents needs. (see language in HB. 4614, Stark)

The three policies outlined above are incremental measures that Congress can use to begin to strengthen the now weak link between reimbursement and quality of care. Coupling any new funding for the nursing home industry with these policies will illustrate that Medicare funds are not dispersed with no strings attached. Providers must be held accountable for how taxpayer dollars are spent so that we can deliver the quality care Medicare beneficiaries who paid into the system their entire lives deserve.

Chairman Grassley and other members of the Committee, thank you strong commitment to improving the quality of care in nursing homes and for the opportunity to submit this written testimony to the record.

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American Federation of State, County and Municipal Employees, AFL-CIO

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STATEMENT FOR THE RECORD

OF THE

AMERICAN FEDERATION OF STATE, COUNTY AND MUNICIPAL EMPLOYEES

FOR THE

U.S. SENATE SPECIAL COMMITTEE ON AGING
JULY 27, 2000

HEARING ON

NURSING HOME RESIDENTS: SHORT-CHANGED BY STAFF SHORTAGES, PART II

STATEMENT FOR THE RECORD
OF THE
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HEARING ON
NURSING HOME RESIDENTS: SHORT-CHANGED BY STAFF SHORTAGES,
PART II

The American Federation of State, County and Municipal Employees (AFSCME) submits the following statement for the hearing record expressing our support for the need to establish staffing ratio requirements in order to address widespread and serious deficiencies in the quality of care in the nation's nursing homes.

AFSCME is a labor organization that represents over 1.3 million workers, many of whom work in public and non-profit nursing homes across the country. They include nurses, physical therapists, nursing assistants and others who provide direct care to nursing home residents.

AFSCME strongly commends Chairman Grassley for holding this hearing, the second to address staffing issues. We applaud his efforts to improve care for the 1.6 million vulnerable Americans residing in nursing homes.

The Health Care Finance Administration's recent report to Congress, "Appropriateness of Minimum Nurse Staffing Ratios in Nursing Homes," confirms the results of other studies showing a relationship between inadequate staffing and poor care. Sadly, it also confirms that nursing homes across the country generally do not meet staffing levels associated with quality care. As a result, nursing home residents suffer needlessly from preventable conditions such as bedsores, malnutrition, dehydration and infections. Such findings are not a surprise, based on the experience of many AFSCME members who work in nursing homes and face the frustration of being unable to deliver appropriate care because there are not enough staff to do so. Such employees unfortunately also face innumerable risks on the job.

AFSCME strongly endorses the staffing recommendations of the National Citizens' Coalition for Nursing Home Reform (NCCNHR). These recommendations include a minimum requirement of direct caregiver to patient ratios of 1:5 during days, 1:10 during evenings, 1:15 during nights and additional staff at mealtime. The recommended licensed nurse ratios are 1:15 during days, 1:20 during evenings and 1:30 during nights. These recommendations represent minimum levels for average case mixes. Where there are higher nursing needs because of the acuity of health problems of residents, the ratios must be adjusted upward.

AFSCME also endorses NCCNHR's call for increasing the current federal training requirement for certified nursing assistants (CNA) from 75 hours to 150 hours. Better training of those who work most directly with residents is needed so that they are able to cope with the growing complexity of health problems.

As Chairman Grassley has indicated, the federal government has a vital role in ensuring that the nation's nursing homes provide quality care to its residents. Any increases in Medicare payments to nursing homes this year must be tied to concrete staffing requirements. There is no reason to wait further before acting to protect vulnerable elder Americans. Taxpayers will not be served if more Medicare dollars are spent without holding nursing home providers accountable for improving quality care.

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NURSING HOME RESIDENTS: SHORT-CHANGED BY STAFF SHORTAGES, PART II

HEARING BEFORE THE SENATE SPECIAL COMMITTEE ON AGING
JULY 27, 2000

As the Senate Special Committee on Aging continues its exploration of short-staffing in nursing homes, several facts must be addressed:

Public funding for nursing homes under the Medicare and Medicaid programs more than doubled between 1990 and 1998, increasing from $24.8 billion to $51.0 billion.

Resident acuity increased substantially between 1991 and 1998.

The nurse staffing levels reported by Medicare/Medicaid facilities remained largely unchanged between 1991 and 1998, except for some increase in registered nurse coverage, particularly in Medicare-only facilities.

Where did the public money go?

Before Congress increases public reimbursement to nursing homes to increase nurse staffing levels, it must understand how facilities spent the billions of dollars they received. Such a study of reimbursement by the General Accounting Office is presently underway. Congress must also assure that the public regulatory system is adequately funded and supported in order to assure that Medicare and Medicaid reimbursements are actually spent on high quality of care and high quality of life for residents. Finally, legislative proposals to create a new category of "single task worker" are misguided. They would exacerbate, rather than resolve, the staffing crisis and they would not improve care for residents.

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Public funding for nursing homes under the Medicare and Medicaid programs more than doubled between 1990 and 1998, increasing from $24.8 billion to $51.0 billion.

Between 1990 and 1998, Medicare and Medicaid funding for nursing home care more than doubled, increasing from $24.8 billion to $51.0 billion.[1]

> During this eight-year period, Medicare spending increased more than six-fold, from $1.7 billion to $10.4 billion, and Medicaid spending increased from $23.1 billion to $40.6 billion. Total Government funding (federal, state, and local, including Medicare and Medicaid) increased from $25.9 billion to $53.0 million[2]

Resident acuity increased substantially between 1991 and 1998.

Between 1991 and 1998, the acuity of residents increased in many specific respects.

> The percentage of residents who are bedfast more than doubled, increasing from 3.5% in 1991[3] to 7.8% in 1998.[4]

> The percentage of residents who are chairbound increased from 46.5% in 1991[5] to 48.4% in 1998.[6]

> The percentage of residents who have contractures increased from 15.8% in 1991[7] to 23.2%

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[1] "Nursing Home Care Expenditures Aggregate and Per Capital Amounts and Percent Distribution, by Source of Funds: Selected Calendar Years 1960-98," Table 7, http://www.hcfa.gov/stats/nhe-oact/tables/57.htm (Copy attached).

[2] *Id.*

[3] Charlene Harrington, et al., "Nursing Facilities, Staffing, Residents, and Facility Deficiencies, 1991 through 1997," Table 14, p. 37 (Jan. 1999) [hereafter Harrington 1999], http://www.hcfa.gov/medicaid/nursfac99.pdf (Copy attached).

[4] Charlene Harrington, et al., "Nursing Facilities, Staffing, Residents, and Facility Deficiencies, 1992 through 1998," Table 14, p. 37 (Jan. 2000) [hereafter Harrington 2000], http://www.hcfa.gov/medicaid/nursfac98.pdf (Copy attached).

[5] Harrington 1999, Table 14, p. 37.

[6] Harrington 2000, Table 14, p. 37.

[7] Harrington 1999, Table 15, p. 39. Copy attached.

in 1998.[8]

The percentage of residents with dementia increased from 34.7% in 1991[9] to 41.6% in 1998.[10]

The percentage of residents with pressure sores increased from 6.8% in 1991[11] to 7.1% in 1998.[12]

The percentage of residents receiving special skin care nearly doubled, increasing from 27.5% in 1991[13] to 54.7% in 1998.[14]

The percentage of residents receiving rehabilitation increased from 14.9% in 1991[15] to 19.0% in 1998.[16]

The percentage of residents receiving ostomy care increased from 2.0% in 1991[17] to 2.9% in 1998.[18]

The percentage of residents receiving injections increased from 10.2% in 1991[19] to 12.1% in 1998.[20]

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[8] Harrington 2000, Table 15, p. 39. Copy attached.

[9] Harrington 1999, Table 17, p. 43. Copy attached.

[10] Harrington 2000, Table 17, p. 43. Copy attached.

[11] Harrington 1999, Table 18, p. 45. Copy attached.

[12] Harrington 2000, Table 18, p. 45. Copy attached.

[13] Harrington 1999, Table 18, p. 45.

[14] Harrington 2000, Table 18, p. 45.

[15] Harrington 1999, Table 19, p. 47. Copy attached.

[16] Harrington 2000, Table 19, p. 47. Copy attached.

[17] Harrington 1999, Table 19, p. 47.

[18] Harrington 2000, Table 19, p. 47.

[19] Harrington 1999, Table 20, p. 49. Copy attached.

[20] Harrington 2000, Table 20, p. 49. Copy attached.

The percentage of residents receiving intravenous therapy increased from 1.1% in 1991[21] to 2.8% in 1998.[22]

The percentage of residents receiving intravenous tube feeding increased from 5.1% in 1991[23] to 6.9% in 1998.[24]

The percentage of residents receiving respiratory treatment more than doubled, increasing from 4.1% in1991[25] to 8.5% in 1998.[26]

The percentage of resident with bladder incontinence increased from 47.0% in 1991[27] to 50.7% in 1998.[28]

The percentage of residents in a bladder training program increased from 4.8% in 1991[29] to 5.7% in 1998.[30]

The nurse staffing levels reported by Medicare/Medicaid facilities remained largely unchanged between 1991 and 1998, except for some increase in registered nurse coverage, particularly in Medicare-only facilities.

Harrington cautions that "the reported staffing ratios [used in the report] reflect payroll hours per resident day and not the actual hours of care delivered directly to residents."[31] In other words, the numbers reported below are higher than the hours of care actually provided to residents.

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[21] Harrington 1999, Table 20, p. 49.

[22] Harrington 2000, Table 20, p. 49.

[23] Harrington 1999, Table 21, p. 51. Copy attached.

[24] Harrington 2000, Table 21, p. 51. Copy attached.

[25] Harrington 1999, Table 21, p. 51.

[26] Harrington 2000, Table 21, p. 51.

[27] Harrington 1999, Table 22, p. 53. Copy attached.

[28] Harrington 2000, Table 22, p. 53. Copy attached.

[29] Harrington 1999, Table 22, p. 53.

[30] Harrington 2000, Table 22, p. 53.

[31] Harrington 2000, p. 59.

In facilities certified for Medicaid-only and Medicare and/or Medicaid:

The number of nurse assistant hours per resident day **remained** 2.0 between 1991[32] and 1998.[33] This coverage means about 114 to 120 minutes per day, or about 38 to 40 minutes per eight-hour shift.[34]

The number of licensed practical nurses/licensed vocational nurse hours per resident day **remained** 0.6 between 1991[35] and 1998.[36] This coverage means about 36 minutes per day, or about12 minutes per shift.[37]

The number of registered nurse hours per resident day increased from 0.3 in 1991[38] to 0.6 in 1998.[39] This coverage includes nurses in administrative positions and means about 36 minutes per resident day, or about 12 minutes per eight hour shift in 1998.[40]

In facilities certified only for Medicare:

The number of nurse assistant hours per resident day increased from 2.4 in 1991[41] to 2.5 in 1998.[42]

The number of LPN/LVN hours per resident day increased from 1.2 in 1991[43] to 1.3

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[32] Harrington 1999, Table 25, p. 61. Copy attached.

[33] Harrington 2000, Table 25, p. 61. Copy attached.

[34] Harrington 2000, p. 60.

[35] Harrington 1999, Table 25, p. 61.

[36] Harrington 2000, Table 25, p. 61.

[37] Harrington 2000, p. 60.

[38] Harrington 1999, Table 25, p. 61.

[39] Harrington 2000, Table 25, p. 61.

[40] Harrington 2000, p. 60.

[41] Harrington 1999, Table 27, p. 65. Copy attached.

[42] Harrington 2000, Table 27, p. 65. Copy attached.

[43] Harrington 1999, Table 27, p. 65.

in 1998 (declining from a high of 1.6 in 1994).[44] This coverage means about 78 minutes per resident day, or 26 minutes per eight-hour shift, in 1998.[45]

The number of RN hours per day increased from 1.0 in 1991[46] to 2.2 in 1998.[47]

In all certified facilities (Medicare-only, Medicaid-only, and Medicare/Medicaid):

The number of nurse assistants per resident day increased from 2.0 in 1991[48] to 2.1 in 1998.[49] This coverage means 126 minutes per resident day, or 42 minutes per eight-hour shift in 1998.[50]

The number of LPN/LVN hours per resident day increased from 0.6 in 1991[51] to 0.7 in 1998.[52] This coverage means 42 minutes per resident day, or 14 minutes per eight-hour shift in 1998.[53]

The number of RN hours per resident day increased from 0.4 in 1991[54] to 0.8 in 1998.[55] This coverage means 48 minutes per resident day, or 16 minutes per eight-hour shift in 1998.[56]

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[44] Harrington 2000, Table 27, p. 65.

[45] Harrington 2000, p. 64.

[46] Harrington 1999, Table 27, p. 65.

[47] Harrington 2000, Table 27, p. 65.

[48] Harrington 1999, Table 29, p. 69. Copy attached.

[49] Harrington 2000, Table 29, p. 69. Copy attached.

[50] Harrington 2000, p. 68.

[51] Harrington 1999, Table 29, p. 69.

[52] Harrington 2000, Table 29, p. 69.

[53] Harrington 2000, p. 68.

[54] Harrington 1999, Table 29, p. 69.

[55] Harrington 2000, Table 29, p. 69.

[56] Harrington 2000, p. 68.

Legislative proposals to create single task workers will not solve the staffing crisis in nursing homes.

Creating a new category of staff to perform single tasks seems, at first, to be an appealing temporary solution to a crisis situation. On reflection, however, it becomes apparent that this solution is an overly simplistic response to a complex problem that has many causes and a long history. Such a category of staff will not improve care for residents in the short-run and will only exacerbate care problems in the long-run.

Many practical problems surround such a new category of staff. These problems include:

- Training (What training will these staff get? Who will conduct the training? How many hours and with what content?);
- Monitoring (Who will monitor that these staff are actually trained and competent before they are assigned to residents?);
- Continuity of care for residents;
- Orientation to individual residents (How will these staff members be made aware of the specific physical and personal characteristics, medical diagnoses, and other needs of the people they are assigned to provide care for?);
- Orientation to the facility's policies, procedures, staff, and emergency protocols.

The legislation does not assure that single task workers supplement, not replace, existing staff. If there is no budget for single task workers, these staff members replace current staff. They will not, as promised, be supplements to existing staff. If no additional budget is contemplated, there would need to be mechanisms to assure that facilities actually hire additional people within existing reimbursement rates. The legislation would also require mechanisms to assure compliance with (training and other) requirements related to the new category of staff and remedies that could be imposed if facilities failed to comply with (training and other) requirements for these staff.

In addition, the lack of sufficient numbers of staff to provide care to residents affects many areas of care. While a considerable amount of attention has been focused recently on the need for additional staff to feed residents at mealtimes, malnutrition and dehydration are two of many care problems that result from short-staffing. Residents need assistance with many activities of daily living – toileting, transferring, etc. – that are not addressed by staff assigned to the single task of feeding residents. What would be next? Toileting assistants? Transferring assistants? Bathing assistants? Having staff assigned to single functions is not an appropriate way to provide care. Assigning staff to particular care needs also reverses the trend to cross-train and multi-train staff to perform all functions that residents need.

Assigning staff to particular care needs does not promote residents' stated request and need for continuity in caregiving. It also does not respond to what certified nurse assistants say is most rewarding in their jobs – their ongoing relationships with individual residents. Good managers recognize the need to stabilize the workforce, not degrade it with fill-in workers. The workforce is

stabilized with practices that improve the quality of workers' jobs.

A new category of staff will not solve problems of short-staffing in either the short-run or the long-run. There is tremendous turnover in CNA staff positions because the jobs are often considered undesirable: workers receive insufficient wages, lack health insurance coverage, lack career ladders and opportunities to advance professionally, have dangerous workloads and poor working conditions, and are inadequately supervised. These negative factors are neither changed nor improved by dividing CNA jobs into an uncoordinated collection of single tasks performed by separate workers.

Residents who need help with eating have physical or cognitive problems that prevent them from being able to feed themselves. Staff who assist such residents need the CNA's skills and training to provide services to these residents.

Finally, a new category of staff will inevitably be called upon to perform additional tasks in the facility. As a consequence, the already-inadequate 75 hours of training for CNAs required by federal reform law will be watered down, if not virtually eliminated.

Conclusion

Congress needs to mandate staffing ratios for nursing homes, as proposed by the National Citizens Coalition for Nursing Home Reform. The Center for Medicare Advocacy will submit additional comments for the record.

This statement is submitted for the record by the Center for Medicare Advocacy, a private, non-profit organization founded in 1986, that provides education, analytical research, advocacy, and legal assistance to help elders and people with disabilities obtain necessary healthcare. The Center focuses on the needs of Medicare beneficiaries, people with chronic conditions, and those in need of long-term care. The Center provides training regarding Medicare and healthcare rights throughout the country and serves as legal counsel in litigation of importance to Medicare beneficiaries nationwide.

Toby S. Edelman
July 26, 2000

Table 7
Nursing Home Care Expenditures Aggregate and Per Capita Amounts and Percent Distribution,by Source of Funds: Selected Calendar Years 1960-98

Year	Total	Out-of-Pocket Payments	Third-Party Payments						Medicare[1]	Medicaid[2]
			Total	Private Health Insurance	Other Private Funds	Government				
						Total	Federal	State and Local		
	Amount in Billions									
1960	$0.8	$0.7	$0.2	$0.0	$0.1	$0.1	$0.1	$0.1	--	--
1970	4.2	2.3	2.0	0.0	0.2	1.7	1.0	0.7	0.1	0.9
1980	17.6	7.4	10.3	0.2	0.5	9.5	5.6	3.9	0.3	8.8
1990	50.9	21.9	29.0	2.1	0.9	25.9	15.8	10.2	1.7	23.1
1991	57.2	23.1	34.1	2.4	1.1	30.6	18.4	12.3	1.9	27.5
1992	62.3	24.1	38.2	2.6	1.2	34.4	21.2	13.2	2.9	30.2
1993	66.4	24.5	41.9	2.8	1.2	37.9	24.0	13.9	3.9	32.4
1994	71.1	25.3	45.8	3.0	1.3	41.4	26.5	14.9	5.5	34.2
1995	75.5	26.5	48.9	3.4	1.4	44.1	28.5	15.6	6.9	35.5
1996	80.2	26.9	53.3	3.7	1.5	48.1	31.8	16.3	8.4	37.9
1997	84.7	27.8	56.9	4.1	1.6	51.3	34.0	17.2	9.6	39.9
1998	87.8	28.5	59.3	4.7	1.6	53.0	35.4	17.7	10.4	40.6
	Per Capita Amount									
1960	$4.5	$3.5	$1.0	$0.0	$0.3	$0.7	$0.4	$0.3	--	--
1970	19.6	10.5	9.1	0.1	1.0	8.1	4.9	3.2	[3]	[3]
1980	75.1	31.3	43.7	0.9	2.3	40.5	23.8	16.7	[3]	[3]
1990	195.8	84.3	111.5	8.1	3.6	99.8	60.6	39.1	[3]	[3]
1991	217.5	87.8	129.7	9.1	4.0	116.6	69.9	46.7	[3]	[3]
1992	234.6	90.7	143.9	10.0	4.4	129.6	79.9	49.7	[3]	[3]
1993	247.8	91.5	156.3	10.5	4.5	141.3	89.6	51.7	[3]	[3]
1994	262.6	93.5	169.1	11.2	4.9	153.0	97.8	55.2	[3]	[3]
1995	276.3	97.2	179.1	12.4	5.2	161.5	104.3	57.2	[3]	[3]
1996	291.1	97.7	193.4	13.5	5.4	174.5	115.4	59.0	[3]	[3]
1997	304.5	99.8	204.7	14.9	5.6	184.3	122.4	61.9	[3]	[3]
1998	312.9	101.6	211.4	16.7	5.8	188.9	126.0	62.9	[3]	[3]
	Percent Distribution									

1960	100.0	77.9	22.1	0.0	6.3	15.7	7.9	7.8	--	--
1970	100.0	53.5	46.5	0.4	4.9	41.2	24.8	16.4	3.4	22.3
1980	100.0	41.8	58.2	1.2	3.0	54.0	31.8	22.2	1.7	50.0
1990	100.0	43.1	56.9	4.1	1.8	51.0	31.0	20.0	3.4	45.4
1991	100.0	40.4	59.6	4.2	1.8	53.6	32.1	21.5	3.4	48.1
1992	100.0	38.7	61.3	4.2	1.9	55.2	34.1	21.2	4.6	48.5
1993	100.0	36.9	63.1	4.2	1.8	57.0	36.2	20.9	5.9	48.8
1994	100.0	35.6	64.4	4.3	1.9	58.3	37.2	21.0	7.7	48.2
1995	100.0	35.2	64.8	4.5	1.9	58.5	37.8	20.7	9.1	47.1
1996	100.0	33.6	66.4	4.7	1.9	59.9	39.7	20.3	10.5	47.2
1997	100.0	32.8	67.2	4.9	1.8	60.5	40.2	20.3	11.3	47.1
1998	100.0	32.5	67.5	5.3	1.8	60.4	40.3	20.1	11.9	46.3

[1] Subset of Federal funds.

[2] Subset of Federal and State and local funds.

[3] Calculation of per capita estimates is inappropriate.

NOTES: Per capita amounts based on July 1 Social Security area population estimates for each year, 1960-98. Numbers and percents may not add to totals because of rounding.

SOURCE: Health Care Financing Administration, Office of the Actuary, National Health Statistics Group.

Table List

Last Updated January 10, 2000

Nursing Facilities, Staffing, Residents, and Facility Deficiencies, 1991 Through 1997

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January 1999

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Harrington 1999

TABLE 14
PERCENTAGE OF RESIDENTS
WHO ARE BEDFAST OR CHAIRBOUND

State	Bedfast							Chairbound						
	1991*	1992*	1993*	1994	1995	1996	1997	1991*	1992*	1993*	1994	1995	1996	1997
AK	12.8	4.4	4.3	6.7	7.7	10.8	8.5	56.9	47.8	52.5	44.8	43.4	43.4	47.5
AL	6.0	6.0	6.8	7.2	10.3	12.3	13.1	47.6	48.4	48.7	51.3	49.7	47.3	48.0
AR	5.1	5.9	6.3	6.4	7.2	9.6	9.9	41.5	46.4	47.0	47.6	47.8	43.2	43.8
AZ	2.7	4.1	5.3	5.1	5.6	7.8	9.2	49.6	49.2	51.8	48.7	50.5	50.0	48.5
CA	5.1	5.1	5.8	5.8	7.7	9.3	9.7	54.4	54.9	55.8	57.2	54.4	52.0	52.9
CO	1.4	1.8	1.8	1.9	2.8	3.3	4.3	41.5	42.0	40.4	41.6	40.3	41.7	45.9
CT	0.9	1.1	2.0	2.3	3.2	3.6	3.4	40.8	39.1	40.8	39.6	41.5	45.1	44.4
DC	0.5	1.8	3.5	8.0	8.1	9.1	10.3	57.5	58.7	54.5	55.0	49.1	49.8	50.4
DE	1.3	4.0	5.4	3.5	4.8	5.3	9.0	41.8	39.7	40.0	44.5	43.1	47.2	49.2
FL	1.9	2.5	3.3	3.6	4.5	6.5	7.1	47.2	48.3	50.8	50.9	52.2	52.3	52.1
GA	4.3	5.2	5.8	6.1	8.2	10.8	10.1	49.0	50.5	50.9	53.2	54.0	51.5	52.0
HI	8.7	17.0	12.7	12.6	15.1	15.4	16.7	58.4	61.0	62.9	57.2	60.8	52.4	49.5
IA	1.4	2.3	2.4	2.5	3.3	4.5	3.6	36.8	35.5	36.0	34.1	36.8	37.9	40.9
ID	1.9	2.9	3.4	3.0	4.3	4.9	5.3	47.2	42.3	49.5	49.8	45.7	45.5	46.5
IL	2.2	2.7	3.1	3.0	4.1	4.9	4.5	40.2	39.7	42.2	42.7	43.7	41.6	41.5
IN	2.0	2.7	3.9	4.7	5.4	7.6	6.7	42.3	42.4	44.7	44.3	46.8	47.0	49.4
KS	2.2	3.3	3.6	3.5	4.2	5.1	5.1	41.4	40.4	43.9	43.1	41.7	40.8	40.2
KY	7.2	8.7	7.5	6.6	9.4	12.5	13.2	51.5	50.9	50.2	49.6	49.9	49.2	48.1
LA	8.5	10.7	10.2	10.8	12.3	16.2	14.7	41.1	40.3	42.2	43.2	42.6	41.2	41.9
MA	0.9	1.4	2.5	2.3	2.8	3.2	3.2	34.8	35.7	35.7	36.8	36.4	38.8	38.9
MD	2.9	4.0	5.4	5.3	5.7	10.2	9.1	47.7	45.7	49.0	50.9	49.3	47.9	50.4
ME	2.5	3.6	6.4	5.3	6.8	7.1	7.4	37.0	39.1	38.2	40.5	44.5	48.9	46.7
MI	1.8	2.7	2.9	3.3	4.4	5.6	6.1	48.4	48.0	49.7	51.0	50.5	51.0	51.3
MN	0.9	1.2	1.8	1.5	2.4	2.8	2.3	44.3	43.8	45.8	48.7	45.7	43.3	45.0
MO	3.8	5.4	5.3	5.1	5.6	7.3	7.3	46.6	46.8	47.9	47.0	46.0	45.2	46.3
MS	8.9	7.8	8.7	10.9	12.3	13.1	12.7	45.2	46.8	50.2	52.3	51.3	52.6	48.4
MT	1.7	2.4	2.5	2.8	3.6	5.5	4.4	42.3	40.7	45.2	41.7	42.8	39.1	40.0
NC	3.7	4.9	6.0	6.4	8.8	12.7	12.2	58.9	57.5	56.2	56.0	55.2	52.2	53.6
ND	0.8	2.9	2.1	3.5	3.7	3.5	2.8	45.8	45.4	46.9	43.6	42.4	41.7	49.2
NE	1.0	1.9	1.9	2.0	2.9	3.7	3.2	41.8	41.1	40.5	41.5	43.0	38.2	42.5
NH	1.7	2.7	3.1	3.3	3.7	3.8	3.6	38.6	38.5	38.1	36.6	36.5	38.4	38.7
NJ	2.4	2.9	4.1	3.5	5.3	5.1	6.1	47.3	47.0	49.0	49.7	49.2	49.6	49.3
NM	2.6	4.0	3.2	2.8	6.1	9.3	8.6	54.4	51.3	47.3	47.7	48.1	47.6	46.6
NV	3.1	2.5	4.2	3.5	7.2	9.0	9.7	52.7	50.2	45.2	51.6	50.1	42.3	46.9
NY	1.7	2.8	3.4	2.9	4.4	5.3	5.2	60.4	58.3	58.4	56.6	56.6	57.7	56.8
OH	2.8	3.2	4.3	4.9	6.5	7.3	7.1	41.6	43.5	43.2	46.2	46.9	47.7	46.4
OK	5.8	6.6	7.5	7.8	8.7	11.5	11.3	42.0	42.3	42.5	42.6	44.2	42.4	43.9
OR	2.9	3.5	4.5	6.8	8.4	9.3	8.8	54.0	56.0	56.7	52.2	54.1	54.6	52.9
PA	3.0	3.7	4.3	4.5	7.2	7.6	7.7	51.8	53.0	52.9	52.6	51.5	51.0	49.0
RI	1.6	2.4	3.3	2.6	3.7	4.6	3.8	33.4	31.6	33.1	35.7	34.1	32.5	27.7
SC	5.1	5.6	7.1	8.6	8.4	11.4	12.1	58.5	59.0	59.6	57.6	56.7	57.0	57.8
SD	0.6	1.1	1.6	3.4	3.3	3.0	3.3	43.0	46.4	47.2	46.5	47.9	45.4	46.6
TN	7.5	7.9	8.9	8.9	10.7	13.9	13.5	48.5	47.4	49.0	49.4	48.6	48.7	47.2
TX	8.9	9.5	10.1	10.1	12.4	13.4	13.0	47.0	48.3	50.0	50.8	49.3	48.3	48.0
UT	2.3	3.5	3.1	3.2	4.6	5.9	6.4	33.3	36.8	36.5	35.0	39.4	41.8	42.8
VA	4.0	5.3	7.1	6.6	8.3	11.4	10.9	57.5	60.9	58.7	59.6	59.6	57.9	59.2
VT	1.7	1.8	3.7	3.5	3.9	4.0	4.5	42.2	41.1	45.2	37.8	43.4	40.9	37.1
WA	2.8	3.3	3.0	3.5	4.3	6.8	6.8	50.8	52.5	55.8	54.0	47.7	56.9	55.1
WI	0.9	1.6	2.2	2.5	3.1	3.4	3.1	43.6	44.0	47.1	49.4	50.0	48.4	47.7
WV	2.6	4.4	7.1	10.3	9.4	13.9	15.0	50.4	52.6	50.2	44.3	45.5	44.8	42.4
WY	1.3	1.8	3.5	2.3	4.2	4.3	4.1	45.1	38.2	42.8	42.0	43.2	38.5	38.5
US	3.5	4.2	4.8	5.1	6.5	8.0	7.9	46.5	46.8	47.8	48.4	48.1	47.4	47.6

* Some facility data are not available from historical records.

Harrington 2000

TABLE 14
PERCENTAGE OF RESIDENTS
WHO ARE BEDFAST OR CHAIRBOUND

	Bedfast							Chairbound						
State	1992	1993	1994	1995	1996	1997	1998	1992	1993	1994	1995	1996	1997	1998
AK	4.4	4.3	6.7	7.7	10.8	8.5	9.0	47.8	52.5	44.8	43.4	43.4	47.5	50.5
AL	6.0	6.8	7.2	10.3	12.3	13.1	13.5	48.4	48.7	51.3	49.7	47.3	48.0	47.1
AR	5.9	6.3	6.4	7.2	9.6	9.9	9.3	46.4	47.0	47.6	47.8	43.2	43.8	44.6
AZ	4.1	5.3	5.1	5.6	7.6	9.2	8.3	49.2	51.8	48.7	50.5	50.0	48.5	49.2
CA	5.1	5.8	5.6	7.7	9.3	9.7	9.3	54.9	55.6	57.2	54.4	52.0	52.9	52.0
CO	1.8	1.8	1.9	2.8	3.3	4.3	4.0	42.0	40.4	41.6	40.3	41.7	45.9	44.5
CT	1.1	2.0	2.3	3.2	3.6	3.4	3.6	39.1	40.6	39.6	41.5	45.1	44.4	43.7
DC	1.8	3.5	8.0	6.1	9.1	10.3	7.9	56.7	54.5	55.0	49.1	49.6	50.4	56.7
DE	4.0	5.4	3.5	4.8	5.3	9.0	7.6	39.7	40.0	44.5	43.1	47.2	49.2	51.2
FL	2.5	3.3	3.6	4.5	6.5	7.1	7.3	48.3	50.6	50.9	52.2	52.3	52.1	51.6
GA	5.2	5.8	6.1	8.2	10.8	10.1	11.0	50.5	50.9	53.2	54.0	51.5	52.0	51.5
HI	17.0	12.7	12.6	15.1	15.4	16.7	14.8	61.0	62.9	57.2	60.8	52.4	49.5	53.2
IA	2.3	2.4	2.5	3.3	4.5	3.6	3.2	35.5	36.0	34.1	36.8	37.9	40.9	41.0
ID	2.9	3.4	3.0	4.3	4.9	5.3	4.1	42.3	49.5	49.8	45.7	45.5	46.5	47.4
IL	2.7	3.1	3.0	4.1	4.9	4.5	4.3	39.7	42.2	42.7	43.7	41.6	41.5	43.7
IN	2.7	3.9	4.7	5.4	7.6	6.7	6.8	42.4	44.7	44.3	46.8	47.0	49.4	50.2
KS	3.3	3.6	3.5	4.2	5.1	5.1	4.3	40.4	43.9	43.1	41.7	40.8	40.2	43.5
KY	6.7	7.5	6.6	9.4	12.5	13.2	14.0	50.9	50.2	49.6	49.9	49.2	48.1	48.7
LA	10.7	10.2	10.8	12.3	16.2	14.7	15.2	40.3	42.2	43.2	43.8	41.2	41.9	42.0
MA	1.4	2.5	2.3	2.8	3.2	3.2	2.8	35.7	35.7	36.8	36.4	38.8	38.9	41.5
MD	4.0	5.4	5.3	5.7	10.2	9.1	8.4	45.7	49.0	50.9	49.3	47.9	50.4	47.8
ME	3.6	6.4	5.3	6.8	7.1	7.4	7.0	39.1	38.2	40.5	44.5	48.9	46.7	49.5
MI	2.7	2.9	3.3	4.4	5.6	6.1	4.9	48.0	49.7	51.0	50.5	51.0	51.3	53.3
MN	1.2	1.6	1.5	2.4	2.8	2.3	2.4	43.8	45.8	46.7	45.7	43.3	45.0	47.3
MO	5.4	5.3	5.1	5.6	7.3	7.3	6.5	46.8	47.9	47.0	46.0	45.2	46.3	47.8
MS	7.8	8.7	10.9	12.3	13.1	12.7	13.8	46.8	50.2	52.3	51.3	52.6	48.4	45.1
MT	2.4	2.5	2.8	3.6	5.5	4.4	4.9	40.7	45.2	41.7	42.8	39.1	40.0	44.3
NC	4.9	6.0	6.4	8.8	12.7	12.2	13.3	57.5	56.2	56.0	55.2	52.2	53.6	54.1
ND	2.9	2.1	3.5	3.7	3.5	2.6	2.2	45.4	46.9	43.6	42.4	41.7	49.2	51.9
NE	1.9	1.9	2.0	2.9	3.7	3.2	2.8	41.1	40.5	41.5	43.0	38.2	42.5	45.1
NH	2.7	3.1	3.3	3.7	3.8	3.6	3.8	38.5	38.1	36.6	36.5	38.4	38.7	40.0
NJ	2.9	4.1	3.5	5.3	5.1	6.1	5.8	47.0	49.0	49.7	49.2	49.6	49.3	51.5
NM	4.0	3.2	2.8	6.1	9.3	6.6	5.9	51.1	47.3	47.7	48.1	47.6	46.6	50.6
NV	2.5	4.2	3.5	7.2	9.0	9.7	8.7	50.2	45.2	51.6	50.1	42.3	46.9	52.1
NY	2.8	3.4	2.9	4.4	5.3	5.2	5.0	56.3	56.4	56.6	56.6	57.7	56.8	57.4
OH	3.2	4.3	4.9	6.5	7.3	7.1	6.1	43.5	43.2	46.2	46.9	47.7	46.4	46.3
OK	6.6	7.5	7.8	8.7	11.5	11.3	10.6	42.3	42.5	42.6	44.2	42.4	43.9	43.1
OR	3.5	4.5	6.8	8.4	9.3	8.6	8.2	56.0	56.7	52.2	54.1	54.6	52.9	50.8
PA	3.7	4.3	4.5	7.2	7.6	7.7	7.2	53.0	52.9	52.8	51.5	51.0	49.0	49.4
RI	2.4	3.3	2.6	3.7	4.6	3.8	3.9	31.6	33.1	35.7	34.1	32.5	27.7	27.9
SC	5.8	7.1	8.8	8.4	11.4	12.1	12.0	59.0	59.6	57.8	56.7	57.0	57.8	57.9
SD	1.1	1.8	3.4	3.3	3.0	3.3	2.8	46.4	47.2	46.5	47.9	45.4	46.6	47.3
TN	7.9	8.9	9.9	10.7	13.9	13.5	13.5	47.4	49.0	49.4	48.6	46.7	47.2	45.6
TX	9.5	10.1	10.1	12.4	13.4	13.0	12.4	48.3	50.0	50.8	49.3	46.3	46.0	47.4
UT	3.5	3.1	3.2	4.6	5.9	6.4	5.2	36.8	36.5	35.0	39.4	41.8	42.8	42.4
VA	5.3	7.1	6.6	8.3	11.4	10.9	9.1	60.9	58.7	59.6	59.6	57.9	59.2	61.8
VT	1.8	3.7	3.5	3.9	4.0	4.5	4.1	41.1	45.2	37.8	43.4	40.9	37.1	41.4
WA	3.3	3.0	3.5	4.3	6.6	6.8	5.7	52.5	55.8	54.0	47.7	56.9	55.1	58.7
WI	1.6	2.2	2.5	3.1	3.4	3.1	3.0	44.0	47.1	49.4	50.0	46.4	47.7	49.3
WV	4.4	7.1	10.3	9.4	13.9	15.0	13.1	52.8	50.2	44.3	45.5	44.6	42.4	43.2
WY	1.8	3.5	2.3	4.2	4.3	4.1	5.3	38.2	42.8	42.9	43.2	38.5	38.5	39.7
US	**4.2**	**4.8**	**5.1**	**6.5**	**8.0**	**7.9**	**7.5**	**46.8**	**47.8**	**48.4**	**48.1**	**47.4**	**47.6**	**48.4**

Harrington 1997

TABLE 15
PERCENT OF RESIDENTS
WITH CONTRACTURES AND PHYSICAL RESTRAINTS

	Contractures							Physical Restraints						
State	1991*	1992*	1993*	1994	1995	1996	1997	1991*	1992*	1993*	1994	1995	1996	1997
AK	28.4	22.6	21.2	25.2	25.9	27.3	18.0	18.8	135.0	20.1	19.9	17.9	20.2	30.3
AL	16.6	18.2	19.0	19.9	20.8	22.4	23.7	26.7	27.1	22.6	20.8	14.3	9.6	5.7
AR	12.4	13.2	14.5	14.6	14.4	15.9	15.7	21.9	20.5	21.8	21.8	22.4	21.7	23.8
AZ	13.8	12.8	14.4	11.9	13.0	15.0	17.1	21.7	22.4	20.2	20.9	21.2	16.3	16.2
CA	15.9	15.4	16.8	16.8	18.3	21.4	22.2	26.7	25.1	24.5	24.8	25.8	26.2	23.7
CO	13.4	14.8	14.5	14.6	15.8	16.1	16.7	17.2	19.3	20.3	17.4	15.9	18.7	18.7
CT	12.5	12.0	12.1	13.0	13.0	13.5	13.7	21.0	24.9	23.5	23.4	18.8	16.9	14.8
DC	21.7	21.4	18.7	23.0	17.4	22.2	19.7	10.0	10.8	14.2	11.2	11.1	11.7	13.0
DE	11.4	12.4	16.2	16.0	18.4	19.9	20.7	17.3	11.9	16.6	14.7	12.9	18.5	10.2
FL	15.5	16.0	16.5	17.2	17.0	17.4	17.2	15.6	14.4	14.3	14.0	11.4	10.2	8.5
GA	15.0	17.0	18.4	19.3	20.1	21.7	23.7	23.4	24.4	24.8	24.7	17.9	13.0	10.8
HI	26.6	33.0	26.3	25.6	36.6	36.0	34.3	30.4	33.4	25.6	21.2	30.1	20.1	14.2
IA	12.7	14.5	15.5	17.1	18.4	21.4	22.0	15.3	9.5	6.8	6.3	4.6	3.2	2.9
ID	13.1	17.3	15.2	15.8	14.9	21.5	22.1	20.2	22.8	18.3	16.3	16.1	21.4	11.4
IL	14.3	15.3	15.2	14.8	16.6	17.9	17.7	18.4	16.6	16.8	18.2	17.6	15.1	10.4
IN	14.0	14.4	15.3	16.0	15.9	17.0	18.0	22.6	21.5	21.7	22.4	19.7	17.7	15.4
KS	14.7	15.7	17.2	19.2	21.0	25.5	27.9	19.0	17.2	15.5	13.8	8.5	6.5	6.1
KY	19.6	18.6	20.0	21.1	20.4	20.8	22.1	23.6	24.0	20.3	18.9	14.6	11.4	9.3
LA	10.8	11.0	11.2	10.8	12.0	14.1	14.9	16.7	17.5	21.3	21.2	21.6	22.0	24.9
MA	13.8	14.2	14.5	15.3	15.3	15.7	15.3	16.0	17.0	20.2	27.1	24.3	24.3	19.5
MD	12.9	14.8	16.2	15.6	15.6	15.9	16.9	16.5	17.2	17.6	20.1	18.8	17.1	15.2
ME	22.8	26.0	29.2	34.7	36.8	38.0	34.6	14.5	14.5	12.6	13.6	10.6	11.4	12.8
MI	18.9	20.1	21.4	22.2	22.7	24.3	22.9	24.3	21.8	20.7	19.6	19.2	16.5	13.2
MN	11.3	12.8	13.6	12.8	14.3	16.6	19.0	21.7	23.6	29.4	30.2	23.3	17.9	15.0
MO	13.7	16.3	15.8	15.8	16.0	17.5	17.9	21.7	18.1	17.7	14.8	9.0	8.3	7.8
MS	17.6	20.8	29.9	37.2	35.8	36.2	31.1	25.4	25.4	27.8	26.0	21.5	19.7	14.9
MT	14.4	16.2	16.5	15.1	18.8	20.9	21.8	18.5	23.0	16.4	13.4	15.1	11.6	13.7
NC	26.2	25.5	25.6	26.4	25.7	27.1	27.7	28.8	26.3	21.8	20.5	17.0	11.6	9.3
ND	21.4	19.4	20.4	21.2	20.8	26.4	31.4	12.2	11.1	9.8	11.3	12.1	15.0	13.2
NE	13.5	15.6	16.5	17.3	17.6	20.1	21.4	14.4	10.9	8.6	7.1	4.9	3.8	3.5
NH	12.8	13.6	18.5	20.4	24.7	27.6	27.1	8.6	9.2	11.0	8.2	11.4	12.7	11.5
NJ	13.7	14.9	15.1	15.7	16.2	17.2	17.8	16.2	12.5	10.8	9.7	10.1	10.0	8.2
NM	13.4	16.1	14.8	13.7	12.7	12.8	14.7	17.3	17.8	16.4	16.3	16.5	19.2	17.2
NV	14.0	14.0	13.9	12.4	12.1	16.9	17.3	27.4	27.0	30.4	25.8	26.0	23.7	14.1
NY	33.5	35.8	44.2	50.1	54.1	57.4	59.5	21.5	16.9	15.7	14.5	14.0	13.1	11.6
OH	14.2	15.0	21.3	26.5	33.1	38.5	41.2	21.2	18.9	18.8	20.3	21.2	20.1	14.0
OK	13.8	13.6	14.2	12.7	13.7	14.2	14.5	14.3	14.4	13.7	14.0	15.4	15.4	16.2
OR	19.1	22.8	23.9	22.1	22.0	23.2	25.1	24.3	21.9	19.1	15.0	14.8	15.0	14.4
PA	15.1	15.7	16.4	16.5	16.7	17.6	17.0	24.2	26.3	28.2	27.5	26.8	22.0	15.2
RI	9.4	10.4	11.1	11.1	12.3	11.4	15.2	16.0	18.6	21.5	22.0	18.0	16.4	12.0
SC	21.1	23.5	22.9	25.9	27.2	30.5	32.0	29.7	27.4	31.1	25.8	19.3	14.5	8.9
SD	19.2	24.9	33.6	37.1	39.2	38.3	41.7	18.0	19.9	22.2	22.2	20.9	25.8	25.4
TN	15.7	14.4	15.5	15.7	16.1	18.1	17.8	27.8	26.4	25.0	23.1	20.8	18.9	14.5
TX	14.7	15.3	16.4	15.4	16.0	18.1	16.3	19.8	20.3	21.8	22.7	22.3	22.1	20.5
UT	9.7	10.0	9.3	9.7	9.2	11.9	11.4	15.5	16.9	15.0	17.8	19.8	19.1	15.4
VA	16.4	17.1	19.0	20.0	20.9	21.4	22.8	29.3	29.7	28.4	23.4	19.7	15.5	12.8
VT	17.8	21.5	20.9	18.0	24.8	24.4	29.9	11.1	9.3	8.2	13.3	11.1	12.4	14.4
WA	18.9	17.9	20.8	19.9	22.2	29.8	33.4	21.8	19.0	18.2	17.0	17.7	18.3	18.6
WI	13.1	13.9	14.0	14.5	16.0	18.1	17.7	26.0	25.0	29.2	34.2	32.6	33.8	24.1
WV	16.2	15.6	23.3	26.7	26.4	28.5	24.3	25.3	20.5	19.9	17.3	24.6	21.6	20.2
WY	11.7	15.7	14.7	17.0	19.3	21.8	22.4	15.9	21.7	19.3	23.9	29.6	17.3	19.9
US	15.8	16.7	18.3	19.2	20.3	22.3	22.8	21.1	20.3	20.3	20.2	18.7	17.3	14.5

* Some facility data are not available from historical records.

Harrington 2000

TABLE 15
PERCENT OF RESIDENTS
WITH CONTRACTURES AND PHYSICAL RESTRAINTS

	Contractures							Physical Restraints						
State	1992	1993	1994	1995	1996	1997	1998	1992	1993	1994	1995	1996	1997	1998
AK	22.6	21.2	25.2	25.9	27.3	18.0	22.2	135.0	20.1	19.9	17.9	20.2	30.3	15.5
AL	18.2	19.0	19.9	20.8	22.4	23.7	23.5	27.1	22.6	20.8	14.3	9.6	5.7	5.5
AR	13.2	14.5	14.6	14.4	15.9	15.7	18.5	20.5	21.8	21.8	22.4	21.7	23.8	21.2
AZ	12.8	14.4	11.9	13.0	15.0	17.1	17.7	22.4	20.2	20.9	21.2	16.3	16.2	15.2
CA	15.4	16.8	16.8	18.3	21.4	22.2	23.3	25.1	24.5	24.8	25.8	26.2	23.7	20.9
CO	14.8	14.5	14.6	15.8	16.1	16.7	17.0	19.3	20.3	17.4	15.9	18.7	18.7	18.1
CT	12.0	12.1	13.0	13.0	13.5	13.7	14.0	24.9	23.5	23.4	18.8	16.9	14.8	12.2
DC	21.4	18.7	23.0	17.4	22.2	19.7	25.9	10.8	14.2	11.2	11.1	11.7	13.0	17.0
DE	12.4	16.2	16.0	18.4	19.9	20.7	24.7	11.9	16.6	14.7	12.9	18.5	10.2	7.8
FL	16.0	16.5	17.2	17.0	17.4	17.2	17.5	14.4	14.3	14.0	11.4	10.2	8.5	7.3
GA	17.0	18.4	19.3	20.1	21.7	23.7	23.4	24.4	24.8	24.7	17.9	13.0	10.6	9.1
HI	33.0	26.3	25.6	36.6	36.0	34.3	32.0	33.4	25.6	21.2	30.1	20.1	14.2	13.2
IA	14.5	15.5	17.1	18.4	21.4	22.0	21.5	9.5	6.8	6.3	4.6	3.2	2.9	2.2
ID	17.3	15.2	15.8	14.9	21.5	22.1	22.7	22.8	18.3	16.3	16.1	21.4	11.4	11.4
IL	15.3	15.2	14.8	16.6	17.9	17.7	18.2	18.6	18.8	18.2	17.6	15.1	10.4	7.8
IN	14.4	15.3	16.0	15.9	17.0	18.0	19.1	21.5	21.7	22.4	19.7	17.7	15.4	11.6
KS	15.7	17.2	19.2	21.0	25.5	27.9	25.8	17.2	15.5	13.8	8.5	6.5	6.1	5.7
KY	18.6	20.0	21.1	20.4	20.8	22.1	21.3	24.0	20.3	18.9	14.6	11.4	9.3	8.1
LA	11.0	11.2	10.6	12.0	14.1	14.9	15.8	17.5	21.3	21.2	21.6	22.0	24.9	23.5
MA	14.2	14.5	15.3	15.3	15.7	15.3	15.5	17.0	20.2	27.1	24.3	24.3	13.5	10.4
MD	14.8	16.2	15.6	15.8	15.9	16.9	19.5	17.2	17.6	20.1	18.8	17.1	15.2	15.4
ME	26.0	29.2	34.7	36.8	38.0	34.6	36.8	14.5	12.6	13.6	10.6	11.4	12.8	13.2
MI	20.1	21.4	22.2	22.7	24.3	22.9	23.1	21.8	20.7	19.6	19.2	16.5	13.2	12.5
MN	12.8	13.6	12.8	14.3	16.8	19.0	19.3	23.8	29.4	30.2	23.3	17.9	15.0	9.1
MO	16.3	15.8	15.8	16.0	17.5	17.9	18.8	18.1	17.7	14.8	9.0	8.3	7.8	7.6
MS	20.8	29.9	37.2	35.8	36.2	31.1	30.0	25.4	27.8	26.0	21.5	19.7	14.9	15.4
MT	16.2	16.5	15.1	18.8	20.9	21.8	22.7	23.0	16.4	13.4	15.1	11.6	13.7	14.5
NC	25.5	25.6	26.4	25.7	27.1	27.7	28.6	26.3	21.8	20.5	17.0	11.6	9.3	7.6
ND	19.4	20.4	21.2	20.8	26.4	31.4	35.5	11.1	9.8	11.3	12.1	15.0	13.2	12.2
NE	15.6	16.5	17.3	17.6	20.1	21.4	21.3	10.9	8.6	7.1	4.9	3.8	3.5	3.5
NH	13.6	18.5	20.4	24.7	27.6	27.1	24.1	9.2	11.0	8.2	11.4	12.7	11.5	10.4
NJ	14.9	15.1	15.7	16.2	17.2	17.8	17.4	12.5	10.8	9.7	10.1	10.0	8.2	7.1
NM	16.1	14.8	13.7	12.7	12.8	14.7	15.8	17.6	16.4	16.3	16.5	19.2	17.2	14.7
NV	14.0	13.9	12.4	12.1	16.9	17.3	19.6	27.0	30.4	25.8	26.0	23.7	14.1	15.5
NY	35.8	44.2	50.1	54.1	57.4	59.5	58.8	16.9	15.7	14.5	14.0	13.1	11.6	10.5
OH	15.0	21.3	26.5	33.1	38.5	41.2	42.3	18.9	18.8	20.3	21.2	20.1	14.0	10.7
OK	13.6	14.2	12.7	13.7	14.2	14.5	13.8	14.4	13.7	14.0	15.4	15.4	16.2	16.0
OR	22.8	23.9	22.1	22.0	23.2	25.1	25.1	21.9	19.1	15.0	14.8	15.0	14.4	13.1
PA	15.7	16.4	16.5	16.7	17.6	17.0	17.1	26.3	28.2	27.5	26.8	22.0	15.2	11.9
RI	10.4	11.1	11.1	12.3	11.4	15.2	16.8	18.6	21.5	22.0	18.0	16.4	12.0	9.8
SC	23.5	22.9	25.9	27.2	30.5	32.0	30.2	27.4	31.1	25.8	19.3	14.5	8.9	6.6
SD	24.9	33.8	37.1	39.2	38.3	41.7	43.0	19.9	22.2	22.2	20.9	25.8	25.4	20.8
TN	14.4	15.5	15.7	16.1	18.1	17.8	18.9	26.4	25.0	23.1	20.8	18.9	14.5	13.5
TX	15.3	16.4	15.4	16.0	16.1	16.3	15.3	20.3	21.8	22.7	22.3	22.1	20.5	19.5
UT	10.0	9.3	9.7	9.2	11.9	11.4	14.6	16.9	15.0	17.8	19.6	19.1	15.4	15.4
VA	17.1	19.0	20.0	20.9	21.4	22.8	22.9	29.7	28.4	23.4	19.7	15.5	12.6	10.1
VT	21.5	20.9	18.0	24.8	24.4	29.9	31.8	9.3	8.2	13.3	11.1	12.4	14.4	11.3
WA	17.9	20.6	19.9	22.2	29.6	33.4	29.8	19.0	18.2	17.0	17.7	18.3	18.6	16.9
WI	13.9	14.0	14.5	16.0	18.1	17.7	18.5	25.0	29.2	34.2	32.6	33.8	24.1	17.0
WV	15.6	23.3	26.7	26.4	28.5	24.3	29.4	20.5	19.9	17.3	24.6	21.6	20.2	12.5
WY	15.7	14.7	17.0	19.3	21.6	22.4	20.6	21.7	19.3	23.9	29.6	17.3	19.9	19.1
US	16.7	18.3	19.2	20.3	22.3	22.8	23.2	20.3	20.3	20.2	18.7	17.3	14.5	12.3

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TABLE 17
PERCENT OF RESIDENTS
WITH DEMENTIA AND OTHER PSYCHOLOGICAL DIAGNOSES

	Dementia							Other Psychological Diagnosis						
State	1991*	1992*	1993*	1994	1995	1996	1997	1991*	1992*	1993*	1994	1995	1996	1997
AK	39.3	30.7	36.1	44.6	38.1	34.5	43.9	10.8	5.9	10.8	10.2	11.8	9.8	11.8
AL	40.8	39.8	43.0	43.3	44.8	45.4	47.9	6.0	8.0	8.4	10.1	10.3	9.8	12.1
AR	31.8	33.0	35.3	35.0	34.2	34.4	33.8	9.0	10.7	11.8	12.4	12.9	13.8	14.7
AZ	38.9	35.3	35.1	32.9	35.7	36.1	36.5	5.7	5.7	6.1	6.6	9.4	7.6	7.7
CA	32.1	30.9	31.9	32.2	33.5	36.2	35.6	10.2	10.4	10.1	11.1	11.7	12.2	12.4
CO	38.9	39.2	41.7	37.6	40.4	44.7	42.6	10.8	10.9	12.2	13.2	11.1	10.0	11.9
CT	38.6	39.1	39.7	40.0	41.3	42.1	43.1	14.5	15.0	14.5	15.1	13.6	12.0	11.5
DC	42.3	34.6	40.8	35.6	38.4	40.6	38.4	21.8	14.6	16.6	14.1	14.1	7.6	11.1
DE	36.8	31.5	36.3	36.6	41.6	41.6	39.7	8.9	8.1	10.5	11.3	10.1	11.4	9.1
FL	33.1	36.3	36.8	37.3	36.8	40.1	40.7	6.8	6.8	7.8	8.3	8.3	8.2	9.5
GA	31.0	33.8	35.4	36.1	42.1	44.5	45.2	8.9	9.7	10.6	10.7	10.1	12.4	13.7
HI	31.9	33.3	34.5	38.0	42.1	48.7	45.4	2.8	2.1	2.1	2.8	2.8	4.4	3.2
IA	35.8	36.9	37.6	37.1	40.0	43.9	46.0	7.5	8.6	10.0	9.7	9.1	8.7	10.2
ID	36.4	43.9	40.6	39.9	43.3	44.3	44.2	7.2	7.6	7.3	10.0	8.4	8.9	8.1
IL	27.0	27.0	29.5	28.5	30.5	32.5	31.8	13.4	13.8	14.5	14.5	15.0	15.8	16.6
IN	30.5	30.4	32.4	33.7	36.3	37.5	37.0	8.8	9.8	11.2	12.1	11.9	11.1	12.1
KS	29.6	30.9	31.8	33.2	34.8	39.6	41.4	8.6	10.5	11.7	12.3	12.3	13.0	14.5
KY	36.8	38.6	41.1	39.7	40.9	43.6	43.7	5.9	6.9	9.6	9.7	9.4	9.5	10.0
LA	28.7	25.7	27.8	28.1	29.3	30.8	33.2	11.2	11.8	11.7	12.9	13.2	14.6	17.4
MA	35.5	36.1	37.9	38.6	40.4	42.3	42.2	16.8	16.6	18.7	19.3	19.7	17.6	17.8
MD	38.2	40.2	39.9	44.1	41.8	40.9	41.3	10.8	14.2	16.0	14.3	14.7	11.8	13.3
ME	40.2	39.8	41.3	41.1	48.2	50.3	52.9	8.7	7.5	8.3	8.7	7.3	8.0	7.5
MI	40.1	41.1	44.0	46.4	49.2	52.1	54.9	7.8	8.4	10.6	12.0	12.2	9.9	11.2
MN	34.6	35.9	37.2	36.5	40.7	40.9	41.1	12.3	11.9	12.9	13.8	12.5	15.3	14.9
MO	31.8	33.9	33.5	34.4	36.3	38.8	38.4	9.0	10.1	11.7	13.1	11.6	12.3	13.0
MS	39.3	41.7	43.4	38.8	38.4	44.1	46.0	8.4	6.3	8.0	9.5	7.3	10.6	13.9
MT	35.0	38.3	37.6	40.9	38.1	42.7	44.2	7.6	7.6	7.5	9.1	7.2	7.7	11.8
NC	39.5	40.7	39.3	37.8	41.3	43.6	44.7	5.5	6.4	7.1	8.4	8.3	8.6	9.7
ND	37.3	34.8	37.3	38.9	36.7	40.0	41.4	8.8	10.4	11.8	12.1	11.7	13.5	12.0
NE	31.2	33.8	34.1	33.4	34.3	37.6	37.4	7.6	8.8	9.6	9.9	9.1	8.9	12.0
NH	38.3	38.3	40.0	37.8	40.3	41.4	45.5	11.0	11.0	9.8	10.9	10.7	10.6	9.9
NJ	36.5	36.6	38.2	39.0	40.8	41.5	38.5	9.9	11.0	11.8	12.5	12.1	11.5	11.5
NM	37.3	41.8	38.1	35.9	37.5	40.8	42.5	3.9	5.5	6.4	5.1	6.9	6.0	5.9
NV	39.0	40.8	39.1	35.6	33.0	40.3	33.9	7.7	8.1	5.4	6.9	6.2	11.7	10.0
NY	43.4	44.9	46.1	46.4	46.5	48.3	48.3	8.4	10.1	10.3	10.7	10.1	9.9	11.1
OH	36.4	37.6	37.6	38.5	42.9	46.7	47.5	10.8	11.6	13.6	14.5	17.1	17.7	18.9
OK	33.8	33.6	33.5	35.0	37.1	38.2	38.9	6.0	7.3	7.1	7.7	8.7	10.0	9.5
OR	43.0	42.0	43.0	44.0	47.5	48.4	49.6	9.1	9.9	11.5	11.7	11.8	10.7	11.6
PA	33.8	35.2	35.0	36.8	40.4	41.0	41.8	7.2	6.8	7.3	8.1	8.1	8.5	8.8
RI	33.2	36.9	39.6	45.1	47.9	47.0	48.5	12.9	14.8	13.3	13.5	11.4	10.9	11.2
SC	40.5	39.4	43.7	48.4	49.2	50.8	52.4	5.4	7.2	7.9	7.3	8.8	7.3	9.0
SD	27.3	29.2	34.7	37.6	39.2	40.9	43.7	8.9	9.7	12.0	10.4	12.3	9.8	10.0
TN	37.7	37.7	38.8	39.6	41.2	45.6	45.0	8.3	7.3	8.3	9.1	10.4	10.9	10.8
TX	31.7	33.0	34.6	34.3	36.3	38.6	39.2	8.6	9.0	9.9	10.0	9.9	10.3	12.1
UT	37.3	38.6	38.2	36.2	38.3	44.0	42.7	10.3	11.7	10.2	10.0	11.1	10.3	11.5
VA	36.9	38.4	41.7	42.7	44.5	44.9	44.6	7.5	7.9	8.8	10.4	10.0	10.4	9.9
VT	40.3	41.3	43.7	49.5	47.6	48.3	49.4	10.7	11.7	8.1	9.5	7.7	9.8	10.7
WA	41.5	42.9	44.5	43.2	39.9	50.5	52.3	11.1	9.2	8.3	6.2	7.4	9.9	10.7
WI	38.2	37.7	37.7	37.4	38.8	41.9	41.8	10.1	10.3	11.0	11.4	10.8	11.1	10.5
WV	33.2	26.2	25.1	21.9	34.8	46.2	39.8	6.2	4.0	4.0	4.0	6.9	9.0	13.5
WY	37.7	38.5	32.4	34.6	38.0	41.5	44.3	9.8	7.5	10.6	9.9	8.8	9.8	11.9
US	34.7	35.5	36.7	37.0	38.8	41.3	41.7	9.3	9.8	10.7	11.2	11.3	11.5	12.4

* Some facility data are not available from historical records.

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TABLE 17
PERCENT OF RESIDENTS
WITH DEMENTIA AND OTHER PSYCHOLOGICAL DIAGNOSES

	Dementia							Other Psychological Diagnosis						
State	1992	1993	1994	1995	1996	1997	1998	1992	1993	1994	1995	1996	1997	1998
AK	30.7	36.1	44.6	38.1	34.5	43.9	45.3	5.9	10.6	10.2	11.8	9.8	11.6	15.0
AL	39.6	43.0	43.3	44.6	45.4	47.9	49.5	8.0	8.4	10.1	10.3	9.8	12.1	12.8
AR	33.0	35.3	35.0	34.2	34.4	33.8	35.8	10.7	11.6	12.4	12.9	13.8	14.7	16.1
AZ	35.3	35.1	32.9	35.7	36.1	36.5	36.7	5.7	6.1	6.6	9.4	7.6	7.7	9.7
CA	30.9	31.9	32.2	33.5	36.2	35.6	35.5	10.4	10.1	11.1	11.7	12.2	12.4	12.9
CO	39.2	41.7	37.6	40.4	44.7	42.6	41.2	10.9	12.2	13.2	11.1	10.0	11.9	11.1
CT	39.1	39.7	40.0	41.3	42.1	43.1	44.0	15.0	14.5	15.1	13.6	12.0	11.5	12.8
DC	34.6	40.8	35.6	38.4	40.6	38.4	37.7	14.6	16.6	14.1	14.1	7.6	11.1	15.9
DE	31.5	36.3	38.6	41.8	41.6	39.7	37.2	8.1	10.5	11.3	10.1	11.4	9.1	14.7
FL	36.3	36.8	37.3	36.8	40.1	40.7	39.4	6.8	7.8	8.3	8.3	8.2	9.5	10.8
GA	33.8	35.4	38.1	42.1	44.5	45.2	46.5	9.7	10.6	10.7	10.1	12.4	13.7	13.5
HI	33.3	34.5	38.0	42.1	48.7	45.4	48.7	2.1	2.1	2.8	2.8	4.4	3.2	4.0
IA	36.3	37.6	37.1	40.0	43.9	46.0	44.9	8.6	10.0	9.7	9.1	8.7	10.2	10.7
ID	43.9	40.6	39.9	43.3	44.3	44.2	40.1	7.6	7.3	10.0	8.4	8.9	8.1	9.2
IL	27.0	29.5	28.5	30.5	32.5	31.8	31.8	13.8	14.5	14.5	15.0	15.8	16.6	17.3
IN	30.4	32.4	33.7	36.3	37.5	37.0	38.6	9.8	11.2	12.1	11.9	11.1	12.1	12.3
KS	30.9	31.8	33.2	34.8	39.6	41.4	43.0	10.5	11.7	12.3	12.3	13.0	14.5	17.5
KY	38.6	41.1	39.7	40.9	43.6	43.7	44.0	6.9	9.6	9.7	9.4	9.5	10.0	10.4
LA	25.7	27.8	28.1	29.3	30.8	33.2	34.9	11.8	11.7	12.9	13.2	14.6	17.4	19.1
MA	36.1	37.9	38.6	40.4	42.3	42.2	43.4	16.6	18.7	19.3	19.7	17.6	17.8	16.9
MD	40.2	39.9	44.1	41.8	40.9	41.3	40.7	14.2	16.0	14.3	14.7	11.8	13.3	11.8
ME	39.8	41.3	41.1	48.2	50.3	52.9	54.0	7.5	8.3	8.7	7.3	8.0	7.5	9.5
MI	41.1	44.0	46.4	49.2	52.1	54.9	54.3	8.4	10.6	12.0	12.2	9.9	11.2	12.8
MN	35.9	37.2	36.5	40.7	40.9	41.1	40.7	11.9	12.9	13.8	12.5	15.3	14.9	16.6
MO	33.9	33.5	34.4	36.3	36.8	38.4	38.7	10.1	11.7	13.1	11.6	12.3	13.0	13.9
MS	41.7	43.4	38.8	38.4	44.1	46.0	45.8	8.3	8.0	9.5	7.3	10.8	13.9	16.0
MT	38.3	37.8	40.9	38.1	42.7	44.2	44.1	7.6	7.5	9.1	7.2	7.7	11.8	11.0
NC	40.7	39.3	37.8	41.3	43.6	44.7	43.2	6.4	7.1	8.4	8.3	8.6	9.7	10.0
ND	34.8	37.3	38.9	36.7	40.0	41.4	41.6	10.4	11.8	12.1	11.7	13.5	12.0	12.0
NE	33.8	34.1	33.4	34.3	37.6	37.4	37.4	8.8	9.6	9.9	9.1	8.9	12.0	13.3
NH	38.3	40.0	37.8	40.3	41.4	45.5	44.4	11.0	9.8	10.9	10.7	10.6	9.9	15.3
NJ	36.6	38.2	39.0	40.8	41.5	38.5	39.5	11.0	11.8	12.5	12.1	11.5	11.5	11.5
NM	41.8	38.1	35.9	37.5	40.8	42.5	40.1	5.5	6.4	5.1	6.9	6.0	5.9	9.7
NV	40.8	39.1	35.6	33.0	40.3	33.9	38.9	8.1	5.4	6.9	6.2	11.7	10.0	12.8
NY	44.9	46.1	46.4	46.5	48.3	48.3	47.5	10.1	10.3	10.7	10.1	9.9	11.1	12.0
OH	37.6	37.8	38.5	42.9	46.7	47.5	46.3	11.6	13.6	14.5	17.1	17.7	18.9	19.4
OK	33.6	33.5	35.0	37.1	38.2	38.9	39.7	7.3	7.1	7.7	8.7	10.0	9.5	10.3
OR	42.0	43.0	44.0	47.5	48.4	49.6	46.7	9.9	11.5	11.7	11.8	10.7	11.6	12.1
PA	35.2	35.0	36.8	40.4	41.0	41.8	39.9	6.8	7.3	8.1	8.1	8.5	8.8	9.8
RI	36.9	39.6	45.1	47.9	47.0	48.5	43.3	14.8	13.3	13.5	11.4	10.9	11.2	11.7
SC	39.4	43.7	48.4	49.2	50.8	52.4	51.6	7.2	7.9	7.3	8.8	7.3	9.0	9.5
SD	29.2	34.7	37.6	39.2	40.9	43.7	46.3	9.7	12.0	10.4	12.3	9.8	10.0	13.9
TN	37.7	38.8	39.6	41.2	45.6	45.0	44.2	7.3	8.3	9.1	10.4	10.9	10.8	11.9
TX	33.0	34.6	34.3	36.3	38.6	39.2	37.9	9.0	9.9	10.0	9.9	10.3	12.1	11.7
UT	38.6	38.2	36.2	38.3	44.0	42.7	40.9	11.7	10.2	10.0	11.1	10.3	11.5	10.5
VA	38.4	41.7	42.7	44.5	44.9	44.6	45.7	7.9	8.8	10.4	10.0	10.4	9.9	11.4
VT	41.3	43.7	49.5	47.6	48.3	49.4	47.8	11.7	8.1	9.5	7.7	9.6	10.7	11.7
WA	42.9	44.5	43.2	39.9	50.5	52.3	53.0	9.2	8.3	6.2	7.4	9.9	10.7	13.0
WI	37.7	37.7	37.4	38.8	41.9	41.8	42.4	10.3	11.0	11.4	10.8	11.1	10.5	11.4
WV	26.2	25.1	21.9	34.8	46.2	39.8	39.6	4.0	4.0	4.0	6.9	9.0	13.5	13.8
WY	36.5	32.4	34.6	38.0	41.5	44.3	39.5	7.5	10.6	9.9	8.6	9.6	11.9	7.4
US	35.5	36.7	37.0	38.8	41.3	41.7	41.6	9.8	10.7	11.2	11.3	11.5	12.4	13.2

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TABLE 18
PERCENT OF RESIDENTS
WITH PRESSURE SORES AND RECEIVING SPECIAL SKIN CARE

	Pressure Sores							Special Skin Care						
State	1991*	1992*	1993*	1994	1995	1996	1997	1991*	1992*	1993*	1994	1995	1996	1997
AK	5.2	6.8	4.2	3.5	2.1	4.1	7.0	45.4	40.3	42.8	36.9	45.2	49.5	57.9
AL	6.2	6.5	7.3	9.1	7.2	6.8	6.4	22.9	23.9	22.7	27.6	33.7	44.0	53.8
AR	6.2	6.9	7.5	7.9	7.4	7.9	7.8	22.9	25.8	21.2	22.1	32.7	45.3	46.9
AZ	9.1	8.5	8.1	10.3	8.3	7.4	8.5	29.7	24.8	25.9	28.0	40.3	50.2	56.7
CA	9.1	9.6	10.0	9.7	9.5	8.8	9.2	24.6	25.7	26.3	27.2	38.6	48.4	49.3
CO	5.9	6.2	6.2	7.6	6.6	5.5	5.6	27.4	25.7	26.4	29.9	39.6	50.4	54.6
CT	4.8	5.3	6.5	5.2	4.9	4.5	4.5	23.5	24.8	24.8	25.3	31.1	39.9	39.8
DC	10.4	8.3	10.7	8.8	8.7	9.9	13.6	25.0	24.2	23.9	31.2	33.0	47.1	60.5
DE	6.3	6.5	6.3	6.3	6.7	6.4	6.8	25.0	26.6	28.5	35.6	37.8	43.3	47.2
FL	7.9	8.3	8.8	8.6	9.0	7.9	8.2	28.1	30.4	32.0	33.5	42.2	52.4	55.6
GA	6.9	7.6	7.5	8.2	7.8	7.5	7.9	30.2	28.4	30.5	31.4	38.2	44.7	47.7
HI	5.2	6.8	6.4	5.6	4.5	5.4	6.6	25.5	25.8	19.4	39.3	48.6	61.2	51.4
IA	5.1	4.9	5.0	5.2	4.8	3.8	3.7	21.5	22.2	23.9	25.2	33.0	41.8	42.8
ID	5.0	5.2	4.7	6.5	7.8	5.1	4.4	20.3	24.9	30.4	30.3	41.0	41.9	48.2
IL	7.0	7.8	8.2	7.8	7.6	7.1	7.2	30.3	31.6	31.9	33.3	41.3	49.9	51.0
IN	6.7	7.7	7.5	8.3	7.9	6.7	6.8	28.3	30.9	32.6	33.4	43.0	49.9	55.9
KS	5.2	5.7	5.8	5.2	5.9	4.9	5.5	19.6	21.5	24.6	29.4	38.2	55.8	56.2
KY	8.6	9.1	8.4	9.4	8.5	7.7	7.4	29.0	29.6	30.2	30.2	35.8	51.3	48.3
LA	7.4	7.8	8.0	9.5	8.5	8.6	9.2	23.1	21.9	25.3	28.4	35.1	45.0	44.7
MA	5.2	6.0	6.3	7.7	8.4	5.7	6.1	33.5	38.1	37.5	37.6	43.4	55.9	58.6
MD	6.5	6.9	6.6	7.8	7.2	9.1	8.5	31.4	30.8	34.8	39.6	47.4	58.1	53.7
ME	4.5	3.7	4.8	5.5	5.2	4.5	4.7	35.0	33.3	40.7	45.0	51.4	71.3	73.3
MI	9.0	8.4	8.8	8.7	8.0	6.8	6.5	31.8	29.6	32.5	33.5	40.9	48.6	53.4
MN	4.0	3.5	4.3	3.9	3.5	3.9	3.6	25.4	26.6	28.2	29.7	37.0	41.4	43.9
MO	7.7	7.5	8.1	7.8	6.8	6.6	6.5	29.9	29.9	33.4	29.4	40.6	48.6	48.9
MS	5.0	6.1	7.4	10.5	9.0	7.5	7.9	22.7	28.5	31.9	33.1	44.9	54.3	54.4
MT	4.9	4.5	5.3	4.9	3.9	3.7	4.4	18.1	21.2	21.2	22.5	29.7	36.3	42.4
NC	9.2	8.6	8.8	9.0	8.5	8.1	8.0	35.7	33.4	32.2	32.9	44.1	55.8	57.0
ND	3.0	3.4	3.9	3.6	4.3	3.2	3.1	16.5	17.1	17.4	18.5	23.6	36.9	40.5
NE	4.3	4.5	4.8	4.4	4.5	3.7	3.6	23.6	23.3	32.7	32.8	46.4	56.4	55.7
NH	3.6	4.4	4.5	5.0	5.0	4.3	4.7	32.1	34.1	37.7	39.2	47.9	62.3	58.2
NJ	7.3	7.5	8.4	8.1	7.4	7.5	7.8	25.5	23.4	22.3	22.4	29.5	38.8	39.3
NM	7.2	8.4	8.7	8.6	8.8	8.9	9.3	27.9	21.6	24.9	23.4	41.7	55.4	52.3
NV	8.3	7.7	7.6	8.9	9.5	9.4	9.9	17.5	23.6	18.1	35.0	37.7	53.0	42.8
NY	7.9	7.0	6.9	7.0	6.9	6.4	6.6	35.5	32.4	32.8	32.5	38.5	49.3	53.9
OH	6.0	6.1	6.5	7.7	6.6	6.2	6.1	24.8	25.2	33.4	40.2	55.3	72.9	76.7
OK	6.5	7.1	7.6	8.1	7.7	7.3	7.7	24.3	27.1	28.6	28.8	35.3	43.0	45.8
OR	7.4	7.1	7.6	7.4	6.6	7.6	6.3	30.6	33.4	30.6	30.0	44.5	47.0	52.9
PA	7.9	8.4	8.7	9.4	8.3	7.7	7.9	32.8	33.3	35.4	37.6	45.4	51.1	54.9
RI	4.2	4.3	4.0	4.6	4.5	5.8	4.5	22.5	27.6	29.3	30.6	38.4	43.0	47.2
SC	7.1	7.2	6.7	9.0	7.7	7.4	8.1	32.1	32.5	31.1	36.3	43.3	61.2	59.7
SD	3.4	3.8	4.3	4.2	4.8	4.8	5.0	27.0	31.3	39.2	48.3	58.6	77.0	84.0
TN	6.1	6.8	7.6	7.5	8.2	7.4	7.3	25.5	23.4	23.3	24.0	33.9	48.7	50.6
TX	8.0	8.0	9.0	9.5	10.0	9.0	9.4	23.8	24.5	24.8	26.1	34.6	47.7	49.8
UT	5.1	4.8	4.7	5.8	5.5	5.6	5.3	20.0	22.5	23.4	21.1	31.8	45.2	54.7
VA	7.8	8.5	9.1	8.7	8.5	8.0	8.7	34.9	34.2	36.1	35.6	42.9	52.0	52.3
VT	4.9	5.1	5.9	5.4	5.1	3.6	4.6	25.7	31.4	39.1	47.8	58.4	62.0	68.1
WA	6.3	7.2	6.8	6.4	6.8	6.1	6.2	28.8	41.7	49.9	57.1	57.2	62.9	65.5
WI	5.4	5.3	5.2	5.4	5.4	5.1	4.8	31.8	29.3	30.8	31.3	39.8	46.8	47.7
WV	8.2	8.5	9.4	11.5	11.2	7.0	7.1	30.3	47.8	56.8	70.8	70.8	80.9	71.5
WY	5.3	5.1	7.8	6.4	7.2	4.0	5.1	25.7	27.0	21.1	29.1	37.8	43.4	65.8
US	6.8	7.1	7.5	7.9	7.4	6.9	7.0	27.5	28.3	30.2	32.0	40.6	51.0	53.2

* Some facility data are not available from historical records.

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TABLE 18
PERCENT OF RESIDENTS
WITH PRESSURE SORES AND RECEIVING SPECIAL SKIN CARE

	Pressure Sores							Special Skin Care						
State	1992	1993	1994	1995	1996	1997	1998	1992	1993	1994	1995	1996	1997	1998
AK	6.8	4.2	3.5	2.1	4.1	7.0	4.1	40.3	42.8	36.9	45.2	49.5	57.9	71.5
AL	6.5	7.3	9.1	7.2	6.8	6.4	6.3	23.9	22.7	27.6	33.7	44.0	53.8	58.2
AR	6.9	7.5	7.9	7.4	7.9	7.8	7.9	25.8	21.2	22.1	32.7	45.3	46.9	50.9
AZ	8.5	8.1	10.3	8.3	7.4	8.5	9.2	24.8	25.9	28.0	40.3	50.2	56.7	52.7
CA	9.6	10.0	9.7	9.5	8.8	9.2	8.7	25.7	26.3	27.2	38.6	46.4	49.3	50.3
CO	6.2	6.2	7.6	6.6	5.5	5.6	5.4	25.7	26.4	29.9	39.6	50.4	54.6	53.9
CT	5.3	5.5	5.2	4.9	4.5	4.5	5.1	24.8	24.8	25.3	31.1	39.9	39.8	42.2
DC	8.3	10.7	8.8	8.7	9.9	13.6	9.8	24.2	23.9	31.2	33.0	47.1	60.5	57.7
DE	6.5	6.3	6.3	6.7	6.4	6.8	7.6	26.6	28.5	35.6	37.8	43.3	47.2	52.9
FL	8.3	8.8	8.6	9.0	7.9	8.2	8.5	30.4	32.0	33.5	42.2	52.4	55.6	59.5
GA	7.6	7.5	8.2	7.8	7.5	7.9	7.9	28.4	30.5	31.4	38.2	44.7	47.7	49.7
HI	6.6	6.4	5.6	4.5	5.4	6.6	5.0	25.8	19.4	39.3	48.6	61.2	51.4	54.7
IA	4.9	5.0	5.2	4.8	3.8	3.7	3.6	22.2	23.9	25.2	33.0	41.8	42.8	44.3
ID	5.2	4.7	6.5	7.8	5.1	4.4	5.1	24.9	30.4	30.3	41.0	41.9	46.2	44.2
IL	7.6	8.2	7.8	7.6	7.1	7.2	7.4	31.6	31.9	33.3	41.3	49.9	51.0	54.4
IN	7.7	7.5	8.3	7.9	6.7	6.8	7.3	30.9	32.6	33.4	43.0	49.9	55.9	55.4
KS	5.7	5.8	5.2	5.9	4.9	5.5	5.6	21.5	24.8	29.4	36.2	55.8	56.2	54.4
KY	9.1	8.4	9.4	8.5	7.7	7.4	7.8	29.6	30.2	30.2	35.8	51.3	49.3	55.2
LA	7.8	8.0	9.5	8.5	8.6	9.2	9.9	21.9	25.3	28.4	35.1	45.0	44.7	42.7
MA	6.0	8.3	7.7	6.4	5.7	6.1	6.0	36.1	37.5	37.8	43.4	55.9	58.6	62.7
MD	6.9	6.6	7.8	7.2	9.1	8.5	8.1	30.8	34.8	39.8	47.4	58.1	53.7	57.9
ME	3.7	4.6	5.5	5.2	4.5	4.7	6.2	33.3	40.7	45.0	51.4	71.3	73.3	64.5
MI	8.4	8.8	8.7	8.0	6.8	6.5	6.5	29.6	32.5	33.5	40.9	48.6	53.4	57.4
MN	3.5	4.3	3.9	3.5	3.9	3.6	3.4	26.6	28.2	29.7	37.0	41.4	43.9	46.4
MO	7.5	8.1	7.8	6.8	6.6	6.5	6.8	29.9	33.4	29.4	40.6	46.6	48.9	52.2
MS	6.1	7.4	10.5	9.0	7.5	7.9	8.3	28.5	31.9	33.1	44.9	64.3	64.4	54.6
MT	4.5	5.3	4.9	3.9	3.7	4.4	3.3	21.2	21.2	22.5	26.7	36.3	42.4	44.6
NC	8.6	8.8	9.0	8.5	8.1	8.0	8.3	33.4	32.2	32.9	44.1	55.8	57.0	56.4
ND	3.4	3.9	3.6	4.3	3.2	3.1	3.7	17.1	17.4	16.5	23.6	36.8	40.5	43.1
NE	4.5	4.8	4.4	4.5	3.7	3.6	4.3	23.3	32.7	32.8	46.4	56.4	55.7	55.8
NH	4.4	4.5	5.0	5.0	4.3	4.7	5.1	34.1	37.7	39.2	47.9	52.3	58.2	63.8
NJ	7.5	8.4	8.1	7.4	7.5	7.8	8.7	23.4	22.3	22.4	29.5	38.8	39.3	41.2
NM	8.4	8.7	8.6	8.8	6.9	9.3	8.5	21.6	24.9	23.4	41.7	55.4	52.3	50.9
NV	7.7	7.8	8.2	9.5	9.4	8.3	8.7	23.8	18.1	35.0	37.7	53.0	42.8	60.2
NY	7.0	6.9	7.0	6.9	6.4	6.6	6.7	32.4	32.8	32.5	38.5	49.3	53.9	56.7
OH	6.1	6.5	7.7	6.6	6.2	6.1	6.0	25.2	33.4	40.2	55.3	72.9	76.7	74.2
OK	7.1	7.6	8.1	7.7	7.3	7.7	7.5	27.1	28.6	28.6	35.3	43.0	45.8	43.4
OR	7.1	7.6	7.4	6.6	7.6	6.3	6.5	33.4	30.6	30.0	44.5	47.0	52.9	48.2
PA	8.4	8.7	9.4	8.3	7.7	7.9	8.4	33.3	35.4	37.6	45.4	51.1	54.9	58.7
RI	4.3	4.0	4.6	4.5	5.8	4.5	6.3	27.6	29.3	30.6	38.4	43.0	47.2	47.9
SC	7.2	6.7	9.0	7.7	7.4	8.1	8.0	32.5	31.1	36.3	43.3	61.2	59.7	61.3
SD	3.8	4.3	4.2	4.6	4.6	5.0	4.3	31.3	39.2	46.3	58.6	77.0	84.0	78.5
TN	6.8	7.8	7.5	8.2	7.4	7.3	7.8	23.4	23.3	24.0	33.9	48.7	50.6	52.4
TX	8.0	9.8	9.5	10.0	9.0	9.4	8.9	24.5	24.6	26.1	34.6	47.7	49.8	51.1
UT	4.6	4.7	5.8	5.5	5.6	5.3	5.6	22.5	23.4	21.1	31.6	45.2	54.7	48.5
VA	8.5	9.1	8.7	8.5	8.0	8.7	7.7	34.2	36.1	35.6	42.9	52.0	52.3	54.6
VT	5.1	5.8	5.4	5.1	3.8	4.6	5.0	31.4	39.1	47.6	56.4	62.0	68.1	65.9
WA	7.2	6.8	6.4	6.6	6.1	6.2	6.7	41.7	49.9	57.1	57.2	62.9	65.5	68.8
WI	5.3	5.2	5.4	5.4	5.1	4.6	4.8	29.3	30.6	31.3	39.8	46.6	47.7	50.0
WV	8.5	9.4	11.5	11.2	7.0	7.1	7.9	47.8	56.8	70.8	70.8	80.9	71.5	72.1
WY	5.1	7.8	6.4	7.2	4.0	5.1	5.8	27.0	21.1	29.1	37.9	43.4	65.8	62.5
US	7.1	7.5	7.9	7.4	6.9	7.0	7.1	28.3	30.2	32.0	40.6	51.0	53.2	54.7

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TABLE 19
PERCENT OF RESIDENTS
RECEIVING REHABILITATION AND OSTOMY CARE

	Rehabilitation							Ostomy Care						
State	1991*	1992*	1993*	1994	1995	1996	1997	1991*	1992*	1993*	1994	1995	1996	1997
AK	58.0	56.3	33.6	64.3	31.6	33.1	38.4	2.5	2.2	3.9	2.9	4.1	2.6	2.9
AL	7.2	10.5	9.7	13.1	12.8	13.0	13.6	1.6	1.9	2.4	2.7	3.4	3.9	4.5
AR	16.1	16.3	17.3	17.6	15.8	16.9	16.7	1.9	2.2	1.8	2.2	1.9	1.8	2.7
AZ	20.1	16.4	21.5	28.1	24.9	24.6	26.7	1.9	1.9	2.0	2.0	2.6	2.0	1.8
CA	12.6	15.1	18.4	20.1	20.1	18.7	19.3	2.1	2.0	2.3	2.4	2.4	2.5	3.0
CO	14.3	18.8	22.2	22.5	24.9	22.9	24.1	1.9	2.2	2.3	2.0	2.0	1.7	2.0
CT	13.8	13.5	15.9	17.4	15.8	15.6	15.9	2.3	1.8	2.0	2.0	2.0	2.0	1.9
DC	25.4	23.9	24.4	27.2	29.2	26.3	25.0	2.0	2.4	5.9	5.7	1.5	1.6	1.9
DE	11.9	16.5	16.8	16.7	17.9	19.6	23.3	2.1	1.3	2.9	2.3	2.5	1.8	2.2
FL	12.1	15.8	18.9	22.2	24.5	25.2	26.8	1.7	1.9	2.2	2.4	2.5	2.4	2.7
GA	17.1	18.2	18.3	19.6	17.7	15.6	15.8	2.0	1.7	2.0	1.9	2.2	2.2	2.3
HI	22.9	17.7	16.4	19.7	15.9	16.5	12.7	2.6	4.4	5.2	3.1	4.9	2.3	2.9
IA	14.3	16.7	15.7	15.8	15.8	13.7	15.1	1.6	1.8	1.5	1.7	1.8	1.7	2.2
ID	10.4	17.2	19.9	27.9	26.2	19.9	27.8	1.5	1.5	1.6	1.9	2.0	1.9	1.5
IL	28.2	29.9	34.0	32.7	28.3	20.9	20.7	2.6	2.7	2.7	2.8	2.7	2.8	3.0
IN	7.7	11.5	13.0	14.2	16.2	17.4	18.8	2.0	2.1	2.1	2.3	2.1	2.1	2.5
KS	23.4	21.8	20.2	17.6	17.5	17.3	16.5	1.5	1.8	1.7	1.7	2.0	1.8	1.7
KY	14.2	17.6	18.1	19.5	20.5	18.1	20.9	2.0	2.8	2.4	3.0	4.0	2.9	3.0
LA	8.7	10.8	11.2	15.0	15.4	16.8	17.5	2.2	2.4	3.1	2.8	3.2	3.1	3.5
MA	8.2	13.2	19.8	24.8	26.6	18.9	20.8	1.9	2.0	2.1	2.3	1.9	2.3	2.3
MD	9.3	12.0	13.7	14.3	16.2	17.4	19.7	2.0	2.3	2.2	2.6	2.3	2.4	2.8
ME	8.9	7.9	7.8	9.9	10.3	12.9	15.7	2.1	2.4	2.8	2.6	2.7	2.9	3.2
MI	12.1	13.7	13.6	14.6	14.6	14.9	15.7	2.1	2.2	2.2	2.1	1.9	2.0	2.1
MN	213.5	20.6	21.3	20.1	20.2	16.0	16.9	2.0	2.0	2.1	2.1	2.1	1.9	2.1
MO	22.3	22.1	25.5	27.0	26.4	23.2	21.9	2.1	2.2	2.2	2.2	2.0	2.1	2.1
MS	5.9	8.2	12.2	17.6	20.4	21.5	24.1	1.8	2.3	3.2	3.6	3.6	3.6	5.2
MT	15.9	14.8	15.7	15.6	17.3	16.7	17.4	1.9	1.8	1.7	1.8	2.1	1.8	1.7
NC	13.8	13.7	15.0	16.7	18.9	17.7	18.8	2.0	2.1	2.3	2.5	2.4	2.5	2.8
ND	17.9	25.5	46.2	44.1	44.1	27.9	26.9	1.7	1.9	1.6	1.8	2.1	2.4	2.8
NE	17.8	19.0	18.9	16.3	16.0	15.1	13.9	1.6	1.5	1.8	1.9	2.0	1.8	2.2
NH	16.5	16.4	17.2	19.7	20.7	19.1	19.4	1.2	1.9	1.9	2.0	1.8	2.3	1.9
NJ	9.7	12.6	14.0	15.0	15.4	14.8	16.1	1.9	2.3	1.8	2.5	2.5	2.1	2.4
NM	17.5	15.4	18.7	22.2	25.8	23.8	26.7	2.2	1.8	2.0	2.8	1.9	1.8	2.3
NV	15.1	11.7	17.4	17.8	20.4	26.3	32.9	1.8	2.5	1.6	1.8	2.2	1.8	3.4
NY	21.2	19.2	19.1	19.2	19.1	19.2	19.6	3.2	3.1	3.7	3.3	3.2	3.5	4.1
OH	13.7	15.2	15.1	17.0	16.3	15.8	16.9	1.8	1.9	2.4	2.8	3.0	2.9	3.8
OK	20.7	25.1	27.0	29.3	22.8	19.1	19.2	1.7	2.2	2.3	2.1	1.9	1.9	2.1
OR	10.8	14.0	14.5	17.5	14.8	14.0	14.4	1.7	2.0	2.3	1.8	2.2	2.4	2.1
PA	16.3	18.0	20.7	20.9	23.7	24.0	26.8	2.2	2.3	2.6	2.4	2.5	2.4	2.5
RI	4.7	7.0	8.5	10.3	12.1	9.1	12.1	1.5	1.8	1.9	1.8	2.0	1.8	1.9
SC	9.8	9.8	11.0	15.0	16.1	16.5	22.3	1.9	2.3	2.5	3.1	3.5	3.1	2.9
SD	16.5	18.9	17.9	17.1	18.7	16.9	10.6	2.4	2.0	1.9	2.1	1.9	2.2	2.3
TN	13.8	14.0	17.6	22.8	22.8	20.2	22.0	1.8	1.9	1.9	1.9	2.0	1.7	2.2
TX	7.4	10.1	14.0	17.7	18.5	19.6	19.6	1.8	2.0	1.8	2.3	2.3	2.0	2.4
UT	14.3	24.3	33.5	36.4	32.7	25.3	29.7	1.5	1.9	1.2	1.8	1.9	2.5	2.0
VA	14.7	14.5	17.1	16.2	15.4	14.9	16.5	2.3	2.1	2.0	2.4	2.5	2.7	2.7
VT	8.3	9.7	11.6	10.1	10.5	12.3	13.0	3.3	3.1	3.4	2.8	2.7	1.9	2.6
WA	32.3	30.4	31.9	34.0	26.8	20.4	20.7	1.9	1.7	1.7	1.9	2.0	2.4	2.4
WI	16.5	17.8	18.1	19.3	18.4	17.0	17.5	1.8	1.9	1.9	1.9	1.9	1.8	2.2
WV	19.3	12.5	12.6	15.2	15.4	16.3	20.3	2.0	1.8	2.2	2.6	3.1	3.0	3.5
WY	11.3	16.9	24.4	18.8	18.4	20.7	17.1	1.9	1.1	1.5	2.5	2.1	2.6	1.2
US	**14.9**	**16.7**	**18.8**	**20.2**	**19.9**	**18.6**	**19.6**	**2.0**	**2.1**	**2.2**	**2.4**	**2.4**	**2.4**	**2.7**

* Some facility data are not available from historical records.

Harrington 20

TABLE 19
PERCENT OF RESIDENTS
RECEIVING REHABILITATION AND OSTOMY CARE

	Rehabilitation							Ostomy Care						
State	1992	1993	1994	1995	1996	1997	1998	1992	1993	1994	1995	1996	1997	1998
AK	56.3	33.6	64.3	31.6	33.1	38.4	46.0	2.2	3.9	2.9	4.1	2.8	2.9	7.0
AL	10.5	9.7	13.1	12.8	13.0	13.6	13.4	1.9	2.4	2.7	3.4	3.9	4.5	5.4
AR	16.3	17.3	17.6	15.8	16.9	16.7	15.0	2.2	1.8	2.2	1.9	1.8	2.7	3.4
AZ	16.4	21.5	28.1	24.9	24.6	26.7	24.5	1.9	2.0	2.0	2.6	2.0	1.8	2.4
CA	15.1	18.4	20.1	20.1	18.7	19.3	18.7	2.0	2.3	2.4	2.4	2.5	3.0	3.5
CO	18.8	22.2	22.5	24.9	22.9	24.1	21.6	2.2	2.3	2.0	2.0	1.7	2.0	2.3
CT	13.5	15.9	17.4	15.8	15.8	15.9	16.3	1.8	2.0	2.0	2.0	2.0	1.9	2.0
DC	23.9	24.4	27.2	29.2	26.3	25.0	21.6	2.4	5.9	5.7	1.5	1.6	1.9	2.9
DE	16.5	16.8	16.7	17.9	19.6	23.3	22.5	1.3	2.9	2.3	2.5	1.8	2.2	2.7
FL	15.8	18.9	22.2	24.5	25.2	26.6	26.0	1.9	2.2	2.4	2.5	2.4	2.7	3.1
GA	18.2	18.3	19.6	17.7	15.6	15.6	16.1	1.7	2.0	1.9	2.2	2.2	2.3	2.4
HI	17.7	16.4	19.7	15.9	16.5	12.7	15.4	4.4	5.2	3.1	4.9	2.3	2.9	3.2
IA	16.7	15.7	15.8	15.8	13.7	15.1	13.7	1.8	1.5	1.7	1.8	1.7	2.2	1.8
ID	17.2	19.9	27.9	26.2	19.9	27.6	21.0	1.5	1.6	1.9	2.0	1.9	1.5	1.7
IL	29.9	34.0	32.7	28.3	20.9	20.7	19.4	2.7	2.7	2.8	2.7	2.8	3.0	3.4
IN	11.5	13.0	14.2	16.2	17.4	18.8	19.3	2.1	2.1	2.3	2.1	2.1	2.5	2.9
KS	21.8	20.2	17.6	17.5	17.3	16.5	14.1	1.6	1.7	1.7	2.0	1.8	1.7	1.9
KY	17.6	18.1	19.5	20.5	18.1	20.9	19.8	2.8	2.4	3.0	4.0	2.9	3.0	3.1
LA	10.8	11.2	15.0	15.4	16.8	17.5	16.7	2.4	3.1	2.8	3.2	3.1	3.5	3.8
MA	13.2	19.8	24.6	26.6	18.9	20.6	20.5	2.0	2.1	2.3	1.9	2.3	2.3	2.3
MD	12.0	13.7	14.3	16.2	17.4	19.7	22.7	2.3	2.2	2.6	2.3	2.4	2.8	2.7
ME	7.9	7.8	9.9	10.3	12.9	15.7	15.2	2.4	2.8	2.6	2.7	2.9	3.2	3.5
MI	13.7	13.6	14.8	14.6	14.9	15.7	15.4	2.2	2.2	2.1	1.9	2.0	2.1	2.4
MN	20.6	21.3	20.1	20.2	16.0	16.9	15.1	2.0	2.1	2.1	2.1	1.9	2.1	2.1
MO	22.1	25.5	27.0	26.4	23.2	21.8	21.6	2.2	2.2	2.2	2.0	2.1	2.1	2.6
MS	8.2	12.2	17.6	20.4	21.5	24.1	23.3	2.3	3.2	3.8	3.6	3.8	5.2	5.0
MT	14.6	15.7	15.6	17.3	16.7	17.4	16.9	1.8	1.7	1.6	2.1	1.8	1.7	1.6
NC	13.7	15.0	16.7	16.9	17.7	18.8	17.5	2.1	2.3	2.5	2.4	2.5	2.8	3.0
ND	25.5	46.2	44.1	44.1	27.9	26.9	21.8	1.9	1.6	1.8	2.1	2.4	2.8	2.1
NE	19.0	18.9	16.3	16.0	15.1	13.9	13.4	1.5	1.8	1.9	2.0	1.8	2.2	2.3
NH	16.4	17.2	19.7	20.7	19.1	19.4	19.2	1.9	1.9	2.0	1.8	2.3	1.9	2.0
NJ	12.6	14.0	15.0	15.4	14.6	16.1	19.5	2.3	1.8	2.5	2.5	2.1	2.4	2.8
NM	15.4	18.7	22.2	25.8	23.8	26.7	24.3	1.8	2.0	2.8	1.9	1.6	2.3	2.1
NV	11.7	17.4	17.8	20.4	26.3	32.9	24.3	2.5	1.6	1.8	2.9	1.9	3.4	3.1
NY	19.2	19.1	19.2	19.1	19.2	19.6	20.6	3.1	3.7	3.3	3.2	3.5	4.1	4.2
OH	15.2	15.1	17.0	16.3	15.8	16.9	16.4	1.9	2.4	2.8	3.0	2.9	3.8	4.0
OK	25.1	27.0	29.3	22.8	19.1	19.2	17.8	2.2	2.3	2.1	1.9	1.9	2.1	2.5
OR	14.0	14.5	17.5	14.6	14.0	14.4	15.6	2.0	2.3	1.8	2.2	2.4	2.1	2.0
PA	18.0	20.7	20.9	23.7	24.0	26.6	25.8	2.3	2.6	2.4	2.5	2.4	2.5	2.9
RI	7.0	8.5	10.3	12.1	9.1	12.1	14.8	1.8	1.9	1.8	2.0	1.8	1.9	2.1
SC	9.8	11.0	15.0	16.1	18.5	22.3	20.8	2.3	2.5	3.1	3.5	3.1	2.9	2.8
SD	18.9	17.9	17.1	18.7	16.9	10.6	12.7	2.0	1.9	2.1	1.9	2.2	2.3	2.8
TN	14.0	17.6	22.6	22.8	20.2	22.0	21.0	1.9	1.9	1.9	2.0	1.7	2.2	2.0
TX	10.1	14.0	17.7	18.5	19.6	19.6	19.9	2.0	1.8	2.3	2.3	2.0	2.4	2.4
UT	24.3	33.5	36.4	32.7	25.3	29.7	30.7	1.9	1.2	1.8	1.9	2.5	2.0	1.4
VA	14.5	17.1	16.2	15.4	14.9	16.5	15.4	2.1	2.0	2.4	2.5	2.7	2.7	2.9
VT	9.7	11.6	10.1	10.5	12.3	13.0	17.7	3.1	3.4	2.6	2.7	1.9	2.6	4.1
WA	30.4	31.9	34.0	26.8	20.4	20.7	17.9	1.7	1.7	1.9	2.0	2.4	2.4	2.9
WI	17.8	18.1	19.3	18.4	17.0	17.5	15.3	1.9	1.9	1.9	1.9	1.8	2.2	2.2
WV	12.5	12.6	15.2	15.4	16.3	20.3	24.8	1.8	2.2	2.6	3.1	3.0	3.5	6.5
WY	18.9	24.4	18.8	18.4	26.7	17.1	20.4	1.1	1.5	2.5	2.1	2.6	1.2	1.5
US	16.7	18.8	20.2	19.9	18.6	19.5	19.0	2.1	2.2	2.4	2.4	2.4	2.7	2.9

TABLE 20
PERCENT OF RESIDENTS
RECEIVING INJECTION AND INTRAVENOUS THERAPY

	Injections							Intravenous Therapy						
State	1991*	1992*	1993*	1994	1995	1996	1997	1991*	1992*	1993*	1994	1995	1996	1997
AK	5.4	8.5	16.5	15.2	12.8	18.5	12.4	0.7	0.8	0.7	2.8	2.0	4.0	3.5
AL	11.5	11.8	13.9	14.7	13.5	11.1	12.1	0.1	0.2	0.3	0.5	0.8	0.6	0.9
AR	10.2	10.8	11.4	12.0	10.9	11.2	11.7	1.5	1.8	1.2	2.4	2.0	2.3	4.4
AZ	8.5	9.0	9.5	11.2	10.1	12.0	12.4	2.4	2.4	3.7	7.2	5.5	5.5	6.5
CA	8.7	9.4	10.2	10.7	11.1	11.1	11.8	2.0	2.1	2.5	3.3	3.6	3.1	4.0
CO	10.3	10.7	12.4	12.7	12.5	10.1	10.6	1.3	1.2	1.7	2.0	1.4	1.4	2.6
CT	10.2	10.1	10.3	10.7	9.7	9.3	9.1	0.0	0.0	0.1	0.2	0.2	0.4	0.5
DC	14.8	12.0	12.8	13.8	14.7	16.5	16.6	0.0	0.0	0.0	2.2	1.3	0.8	2.6
DE	8.3	7.4	9.2	9.3	8.3	9.2	9.7	0.1	0.1	0.3	0.4	0.9	0.9	3.1
FL	8.7	9.6	10.3	10.9	11.0	10.5	12.1	0.5	0.7	1.1	1.5	2.0	2.2	2.7
GA	10.8	11.5	11.7	12.6	12.3	10.9	11.3	0.2	0.4	0.6	0.6	1.0	0.7	1.7
HI	6.2	8.0	9.3	9.2	8.8	9.7	9.6	0.6	2.8	3.2	2.2	2.3	2.3	3.7
IA	8.9	9.4	9.9	10.5	10.0	8.9	8.9	0.7	1.0	0.9	1.3	1.1	1.3	0.9
ID	9.5	11.2	9.8	12.6	13.4	11.1	11.5	0.4	0.3	0.3	2.3	1.5	1.9	1.9
IL	10.4	11.1	11.5	12.3	11.9	11.4	11.3	1.2	1.3	1.6	2.5	2.6	2.7	2.8
IN	10.8	11.6	12.6	13.6	12.2	12.1	12.9	0.9	1.5	2.3	2.8	2.9	2.3	3.1
KS	9.8	10.7	11.1	12.0	11.2	9.4	10.0	1.8	1.7	1.5	2.2	2.0	1.5	2.3
KY	11.9	12.2	12.9	14.0	14.2	11.8	13.7	2.2	1.8	2.5	3.1	3.4	3.3	3.9
LA	13.3	14.0	14.0	15.2	14.8	13.6	13.9	3.8	5.0	4.9	7.3	5.5	5.9	5.8
MA	10.8	11.0	11.6	11.6	11.4	8.5	9.2	0.2	0.1	0.2	0.4	0.8	1.1	1.4
MD	9.4	10.5	11.3	11.2	12.5	13.1	12.8	0.4	0.8	0.7	0.8	1.6	1.5	2.6
ME	11.0	11.1	9.9	11.6	10.3	9.4	10.5	0.5	0.2	0.2	0.3	0.3	0.7	1.0
MI	9.6	10.2	10.7	11.3	10.9	9.4	10.2	0.2	0.2	0.3	0.3	0.4	0.4	0.7
MN	10.1	10.2	10.6	11.3	10.0	9.2	10.0	0.2	0.2	0.3	0.4	0.4	0.4	0.4
MO	11.6	12.2	13.7	13.5	12.5	11.0	11.4	2.9	3.5	4.1	3.5	3.7	3.5	3.4
MS	11.8	11.8	13.6	13.7	13.0	13.8	15.8	0.3	0.2	1.5	1.9	2.4	4.2	4.9
MT	9.5	9.0	9.3	9.7	9.2	9.8	12.5	1.1	0.3	0.9	0.6	0.8	1.0	0.6
NC	11.1	12.3	13.6	13.5	13.4	12.4	13.1	0.4	0.4	0.8	1.2	1.0	1.4	1.7
ND	9.8	10.5	11.3	11.9	11.0	10.7	12.5	0.1	0.2	0.2	1.3	3.2	1.4	2.0
NE	9.5	10.1	10.4	11.7	11.2	9.3	10.1	0.5	0.5	0.8	0.9	1.6	1.1	1.3
NH	10.6	10.5	9.6	11.3	9.0	7.5	8.4	0.8	0.3	0.7	0.2	0.2	0.3	0.3
NJ	7.7	7.8	8.1	9.1	8.2	7.8	8.2	0.2	0.2	0.2	0.3	0.4	0.5	0.7
NM	9.8	9.9	9.5	10.1	15.2	12.4	14.5	0.5	1.8	0.5	2.4	2.2	4.8	2.7
NV	7.8	7.8	8.7	13.0	10.0	11.1	13.5	0.1	0.5	0.9	4.6	2.8	5.8	7.6
NY	9.2	9.9	11.0	10.9	9.8	8.8	9.1	0.2	0.1	0.2	0.2	0.3	0.4	0.4
OH	10.9	11.5	12.1	13.0	12.5	12.7	12.7	1.0	1.1	1.3	2.0	1.8	2.1	2.3
OK	10.7	11.8	13.1	12.8	11.5	10.2	9.5	0.4	2.1	1.8	2.6	2.4	2.5	3.6
OR	8.1	8.5	9.0	9.7	9.0	9.7	10.5	0.9	0.8	0.8	1.5	1.1	1.1	1.3
PA	10.8	11.8	12.1	13.4	12.8	12.3	13.8	1.3	1.3	1.8	2.2	2.7	2.8	3.5
RI	9.3	10.2	10.8	10.7	10.4	8.8	8.8	0.2	0.2	0.1	0.1	0.3	2.0	0.9
SC	10.9	12.1	12.8	15.5	13.9	11.4	12.1	0.1	0.3	0.5	0.5	1.5	1.8	3.0
SD	9.8	10.4	11.8	11.0	9.9	9.0	9.4	0.1	0.1	0.3	0.5	0.7	0.6	0.9
TN	12.3	12.8	13.1	13.9	13.3	11.5	12.6	1.2	1.5	1.8	2.5	2.5	2.6	3.0
TX	11.1	11.5	12.8	13.3	12.8	12.1	12.3	2.1	2.9	3.5	4.7	4.8	4.8	4.7
UT	10.9	11.7	13.2	12.4	11.9	11.4	12.6	0.4	2.5	2.7	2.0	3.1	2.7	2.2
VA	10.9	11.4	11.8	12.3	12.0	11.0	12.8	0.8	0.7	0.8	1.5	1.5	1.6	2.0
VT	10.5	8.7	8.1	9.9	10.8	9.3	11.0	0.3	0.0	0.0	0.4	0.3	0.2	0.9
WA	8.5	8.7	10.0	10.0	9.5	10.1	11.4	0.6	0.9	1.0	1.4	1.3	2.0	2.0
WI	10.7	10.9	10.8	11.5	10.3	9.5	10.2	0.2	0.2	0.3	0.3	0.4	0.7	0.8
WV	11.3	11.3	12.3	12.9	14.9	11.6	12.8	3.3	3.8	2.8	3.8	3.8	4.0	6.5
WY	9.8	10.9	11.5	10.1	11.7	9.8	10.1	0.8	0.9	4.1	1.1	2.0	2.2	3.1
US	10.2	10.8	11.5	12.2	11.6	10.9	11.5	1.1	1.3	1.5	2.1	2.1	2.2	2.6

* Some facility data are not available from historical records.

TABLE 20
PERCENT OF RESIDENTS
RECEIVING INJECTION AND INTRAVENOUS THERAPY

	Injections							Intravenous Therapy						
State	1992	1993	1994	1995	1996	1997	1998	1992	1993	1994	1995	1996	1997	1998
AK	8.5	16.5	15.2	12.8	18.5	12.4	11.5	0.8	0.7	2.8	2.0	4.0	3.5	5.5
AL	11.8	13.9	14.7	13.5	11.1	12.1	12.1	0.2	0.3	0.5	0.8	0.6	0.9	0.8
AR	10.6	11.4	12.0	10.9	11.2	11.7	11.2	1.6	1.2	2.4	2.0	2.3	4.4	2.5
AZ	9.0	9.5	11.2	10.1	12.0	12.4	13.6	2.4	3.7	7.2	5.5	5.5	6.5	7.6
CA	9.4	10.2	10.7	11.1	11.1	11.8	12.6	2.1	2.5	3.3	3.6	3.1	4.0	4.1
CO	10.7	12.4	12.7	12.5	10.1	10.6	10.4	1.2	1.7	2.0	1.4	1.4	2.6	2.8
CT	10.1	10.3	10.7	9.7	9.3	9.1	9.6	0.0	0.1	0.2	0.2	0.4	0.5	0.6
DC	12.0	12.8	13.8	14.7	16.5	16.6	18.3	0.0	0.0	2.2	1.3	0.9	2.6	1.0
DE	7.4	9.2	9.3	8.3	9.2	9.7	10.8	0.1	0.3	0.4	0.9	0.9	3.1	2.1
FL	9.6	10.3	10.9	11.0	10.5	12.1	12.3	0.7	1.1	1.5	2.0	2.2	2.7	3.2
GA	11.5	11.7	12.8	12.3	10.9	11.3	12.7	0.4	0.8	0.6	1.0	0.7	1.7	1.3
HI	8.0	9.3	9.2	8.8	9.7	9.6	8.3	2.6	3.2	2.2	2.3	2.3	3.7	1.7
IA	9.4	9.9	10.5	10.0	8.9	8.9	9.7	1.0	0.9	1.3	1.1	1.3	0.9	1.3
ID	11.2	9.8	12.6	13.4	11.1	11.5	12.4	0.3	0.3	2.3	1.5	1.9	1.9	2.2
IL	11.1	11.5	12.3	11.9	11.4	11.3	12.4	1.3	1.6	2.5	2.6	2.7	2.8	2.7
IN	11.6	12.6	13.6	12.2	12.1	12.9	13.1	1.5	2.3	2.8	2.9	2.3	3.1	3.2
KS	10.7	11.1	12.0	11.2	9.4	10.0	10.0	1.7	1.5	2.2	2.0	1.5	2.3	2.1
KY	12.2	12.9	14.0	14.2	11.8	13.7	13.3	1.6	2.5	3.1	3.4	3.3	3.9	3.2
LA	14.0	14.0	15.2	14.8	13.6	13.9	14.5	5.0	4.9	7.3	5.5	5.9	5.8	6.5
MA	11.0	11.6	11.6	11.4	8.5	9.2	10.0	0.1	0.2	0.4	0.8	1.1	1.4	1.8
MD	10.5	11.3	11.2	12.5	13.1	12.8	14.7	0.8	0.7	0.6	1.6	1.5	2.6	3.6
ME	11.1	9.9	11.6	10.3	9.4	10.5	11.5	0.2	0.2	0.3	0.3	0.7	1.0	0.6
MI	10.2	10.7	11.3	10.2	9.4	10.2	10.6	0.2	0.3	0.3	0.4	0.4	0.7	0.9
MN	10.2	10.6	11.3	10.0	9.2	10.0	9.8	0.2	0.3	0.4	0.4	0.4	0.4	0.5
MO	12.2	13.7	13.5	12.5	11.0	11.4	12.2	3.5	4.1	3.5	3.7	3.5	3.4	4.1
MS	11.6	13.6	13.7	13.0	13.6	15.8	16.4	0.2	1.5	1.9	2.4	4.2	4.9	5.4
MT	9.0	9.3	9.7	9.2	9.6	12.5	11.9	0.3	0.9	0.6	0.8	1.0	0.6	1.2
NC	12.3	13.6	13.5	13.4	12.4	13.1	13.8	0.4	0.8	1.2	1.0	1.4	1.7	1.8
ND	10.5	11.3	11.9	11.0	10.7	12.5	10.6	0.2	0.2	1.3	3.2	1.4	2.0	2.5
NE	10.1	10.4	11.7	11.2	9.3	10.1	10.2	0.5	0.8	0.9	1.6	1.1	1.3	1.4
NH	10.5	9.6	11.3	9.0	7.5	8.4	9.6	0.3	0.7	0.2	0.2	0.3	0.3	0.4
NJ	7.8	8.1	9.1	8.2	7.8	8.2	8.9	0.2	0.2	0.3	0.4	0.5	0.7	1.4
NM	9.9	9.5	10.1	15.2	12.4	14.5	12.7	1.8	0.5	2.4	2.2	4.8	2.7	2.5
NV	7.6	6.7	13.0	10.0	11.1	13.5	19.2	0.5	0.9	4.6	2.8	5.8	7.6	5.0
NY	9.9	11.0	10.9	9.8	8.8	9.1	10.1	0.1	0.2	0.2	0.3	0.4	0.4	0.5
OH	11.5	12.1	13.8	12.5	12.7	12.7	13.9	1.1	1.3	2.0	1.6	2.1	2.3	2.4
OK	11.8	13.1	12.6	11.8	10.2	9.8	10.8	2.1	1.8	2.6	2.4	2.5	3.6	4.4
OR	8.5	9.0	9.7	9.0	9.7	10.5	10.6	0.6	0.8	1.5	1.1	1.1	1.3	1.9
PA	11.6	12.1	13.4	12.8	12.3	13.8	14.0	1.3	1.8	2.2	2.7	2.8	3.5	4.2
RI	10.2	10.8	10.7	10.4	8.8	8.8	10.8	0.2	0.1	0.1	0.3	2.0	0.9	1.4
SC	12.1	12.8	15.5	13.9	11.4	12.1	13.0	0.3	0.5	0.5	1.5	1.6	3.0	2.7
SD	10.4	11.8	11.0	9.9	9.0	9.4	10.4	0.1	0.3	0.5	0.7	0.6	0.9	0.8
TN	12.8	13.1	13.9	13.3	11.5	12.6	14.1	1.5	1.8	2.5	2.5	2.6	3.0	4.3
TX	11.5	12.8	13.3	12.8	12.1	12.3	12.7	2.9	3.5	4.7	4.8	4.6	4.7	4.8
UT	11.7	13.2	12.4	11.9	11.4	12.6	12.3	2.5	2.7	2.0	3.1	2.7	2.2	2.3
VA	11.4	11.8	12.3	12.0	11.0	12.8	11.6	0.7	0.8	1.5	1.5	1.6	2.0	1.6
VT	8.7	8.1	9.9	10.8	9.3	11.0	10.2	0.0	0.0	0.4	0.3	0.2	0.9	1.1
WA	8.7	10.0	10.0	9.5	10.1	11.4	14.1	0.9	1.0	1.4	1.3	2.0	2.0	2.7
WI	10.9	10.6	11.5	10.3	9.5	10.2	10.5	0.2	0.3	0.3	0.4	0.7	0.8	0.8
WV	11.3	12.3	12.9	14.9	11.6	12.8	13.5	3.8	2.8	3.8	3.8	4.0	6.5	6.0
WY	10.9	11.5	10.1	11.7	9.8	10.1	10.5	0.9	4.1	1.1	2.0	2.2	3.1	2.5
US	10.8	11.5	12.2	11.6	10.9	11.5	12.1	1.3	1.5	2.1	2.1	2.2	2.6	2.8

TABLE 21
PERCENT OF RESIDENTS
RECEIVING TUBE FEEDING AND RESPIRATORY TREATMENT

	Tube Feeding							Respiratory Treatment						
State	1991*	1992*	1993*	1994	1995	1996	1997	1991*	1992*	1993*	1994	1995	1996	1997
AK	6.9	6.0	5.7	5.3	4.9	4.6	6.0	7.2	9.1	8.9	9.1	10.5	10.9	14.4
AL	7.1	8.1	8.4	10.1	11.8	11.8	12.5	1.7	2.3	2.9	4.1	4.4	5.0	5.3
AR	4.8	4.9	5.4	5.7	5.2	5.8	6.1	2.6	3.3	4.6	5.4	6.5	6.1	6.1
AZ	5.4	4.7	5.0	5.5	4.6	4.3	6.1	5.6	8.0	8.9	14.0	10.2	10.0	11.5
CA	7.7	8.2	9.5	9.5	9.8	10.4	11.1	4.3	4.9	6.4	7.0	7.9	7.7	8.9
CO	3.2	3.2	3.2	3.8	3.2	3.3	3.4	10.3	11.0	12.1	15.3	15.6	12.7	13.6
CT	3.2	3.3	3.3	3.5	3.8	4.0	4.2	3.3	3.8	4.3	5.3	5.6	6.0	6.6
DC	10.2	8.5	8.7	15.2	10.6	13.0	13.6	2.0	2.5	3.0	9.1	3.6	5.5	6.8
DE	5.0	5.5	5.8	6.5	7.4	7.6	7.9	3.6	4.1	4.7	4.2	4.9	6.5	8.4
FL	6.6	7.1	7.6	7.7	7.9	8.1	8.7	3.6	4.3	5.6	6.6	8.0	8.2	8.6
GA	5.5	6.4	7.3	8.0	8.5	9.2	9.2	2.5	3.2	3.6	4.3	5.5	5.0	6.5
HI	14.4	19.8	17.2	13.7	18.3	14.7	13.5	2.8	3.7	6.3	3.9	4.5	7.0	4.4
IA	1.7	2.3	2.3	2.5	2.4	2.3	2.5	3.8	5.4	5.5	6.4	6.5	6.7	6.7
ID	1.7	1.7	1.8	2.5	2.2	2.3	2.5	4.7	6.9	7.7	9.0	10.8	9.8	10.3
IL	3.8	3.9	4.1	4.1	4.1	4.4	4.5	3.3	3.7	4.5	4.8	5.1	5.4	6.5
IN	4.6	5.0	5.2	6.1	6.3	6.2	6.2	5.2	7.2	8.7	9.2	8.6	8.4	8.8
KS	1.9	1.6	1.5	1.8	2.1	2.0	2.1	4.1	4.3	5.4	6.0	6.9	7.2	8.2
KY	11.5	10.5	11.2	12.4	12.8	11.2	11.3	9.4	8.9	10.6	11.5	10.5	10.0	10.8
LA	7.1	8.0	8.2	8.7	8.3	9.3	10.4	5.1	5.8	5.9	9.2	8.1	8.9	8.3
MA	2.5	2.9	2.9	3.3	3.3	3.9	3.9	2.9	3.6	4.4	5.2	5.9	6.2	7.3
MD	5.7	6.2	7.7	7.9	8.1	9.3	9.3	3.3	4.1	4.0	4.5	6.2	6.9	7.0
ME	2.3	2.9	2.7	2.3	2.3	2.8	3.2	5.4	4.8	5.0	6.0	5.7	6.0	7.7
MI	4.4	4.2	4.7	4.8	4.7	4.9	5.0	3.2	3.9	4.5	5.0	5.4	5.9	6.8
MN	2.1	2.0	2.1	2.0	1.9	2.0	2.1	3.9	4.1	4.8	5.5	5.9	6.4	7.4
MO	6.9	5.9	5.8	5.8	4.9	5.5	5.2	5.4	6.9	6.6	7.9	8.2	7.9	8.5
MS	4.9	5.8	6.9	8.0	7.6	8.4	9.1	1.6	1.8	3.0	4.2	5.2	5.8	7.4
MT	2.7	2.0	2.0	2.1	2.0	2.0	2.2	6.5	8.4	9.3	10.8	10.4	11.7	11.5
NC	8.7	9.6	9.3	9.7	9.7	9.7	10.1	3.5	4.2	5.0	5.9	6.7	6.3	7.3
ND	2.5	2.1	2.5	2.3	3.2	3.0	2.6	3.6	3.3	3.5	5.5	7.0	6.5	7.7
NE	1.7	2.0	1.9	2.0	2.1	2.2	2.3	2.9	3.7	5.0	6.0	6.7	6.8	7.6
NH	1.5	1.3	1.2	1.8	1.9	2.4	1.8	3.7	4.2	4.2	5.1	5.1	7.1	5.7
NJ	5.1	6.3	7.4	7.9	7.9	7.6	7.8	2.6	3.0	3.1	3.4	3.7	3.4	4.9
NM	4.8	4.0	3.4	3.1	3.5	3.4	3.9	5.3	7.2	9.0	11.6	10.6	13.3	14.8
NV	6.7	7.3	8.1	9.5	7.7	8.5	8.4	9.8	7.8	7.1	11.1	10.7	14.0	13.1
NY	6.7	6.7	7.0	7.5	7.3	7.7	8.0	2.4	2.6	3.0	3.5	3.9	4.4	5.3
OH	5.6	6.0	6.5	7.0	7.1	7.6	7.7	4.8	5.5	6.9	7.2	7.3	8.6	9.4
OK	4.7	6.1	5.7	6.3	5.8	6.3	7.1	3.5	5.0	5.9	6.7	6.0	6.7	7.6
OR	3.2	2.9	3.8	3.5	3.6	4.2	4.2	3.7	3.6	5.0	5.7	6.0	4.1	5.7
PA	6.0	6.5	6.4	6.3	6.3	6.5	6.8	5.1	5.5	6.4	7.1	8.7	9.8	10.4
RI	2.1	2.5	2.5	2.6	2.8	3.1	3.3	2.2	2.3	2.7	3.8	5.1	4.7	5.4
SC	5.9	7.4	7.1	8.9	8.5	8.8	9.4	2.1	2.4	2.5	3.5	5.2	4.3	7.0
SD	1.2	1.3	1.3	1.6	1.7	1.7	1.9	4.0	4.0	4.8	5.1	6.2	6.2	7.0
TN	6.6	7.4	8.1	8.1	8.7	8.5	7.9	3.8	4.2	4.9	6.7	7.5	6.9	8.6
TX	5.9	6.8	6.6	7.7	8.1	8.1	8.5	4.1	4.7	6.3	7.9	8.1	9.1	9.2
UT	1.8	2.6	2.7	2.5	2.5	2.5	2.2	5.2	6.7	8.6	9.4	10.5	8.8	11.1
VA	6.6	7.9	8.1	7.9	8.6	8.1	9.1	4.7	5.0	6.1	6.5	7.7	8.1	8.4
VT	3.1	2.1	2.9	1.0	2.3	2.0	3.4	4.4	3.8	4.3	6.7	4.9	6.1	7.5
WA	3.7	3.8	3.8	4.4	4.8	4.4	4.9	4.2	4.6	6.1	6.8	8.8	6.7	7.5
WI	2.6	2.5	2.7	2.8	2.8	2.7	2.9	3.9	4.3	4.7	5.3	5.5	5.9	6.7
WV	6.9	5.7	6.7	6.9	6.8	7.2	6.8	5.6	7.5	6.5	7.8	8.8	9.8	12.7
WY	2.9	2.1	2.1	1.8	2.0	2.4	1.7	7.4	10.1	17.7	15.1	14.4	15.1	14.9
US	5.1	5.5	5.7	6.2	6.3	6.5	6.7	4.1	4.8	5.7	6.6	7.0	7.3	8.1

* Some facility data are not available from historical records.

TABLE 21
PERCENT OF RESIDENTS
RECEIVING TUBE FEEDING AND RESPIRATORY TREATMENT

	Tube Feeding							Respiratory Treatment						
State	1992	1993	1994	1995	1996	1997	1998	1992	1993	1994	1995	1996	1997	1998
AK	6.0	5.7	5.3	4.9	4.6	6.0	8.2	9.1	8.9	9.1	10.5	10.9	14.4	11.9
AL	8.1	8.4	10.1	11.8	11.8	12.5	13.0	2.3	2.9	4.1	4.4	5.0	5.3	6.2
AR	4.9	5.4	5.7	5.2	5.8	6.1	6.5	3.3	4.6	5.4	6.5	6.1	6.1	7.7
AZ	4.7	5.0	5.5	4.6	4.3	6.1	5.7	8.0	8.9	14.0	10.2	10.0	11.5	11.1
CA	8.2	9.5	9.5	9.8	10.4	11.1	11.8	4.9	6.4	7.0	7.9	7.7	8.9	8.8
CO	3.2	3.2	3.6	3.2	3.3	3.4	3.8	11.0	12.1	15.3	15.6	12.7	13.8	15.2
CT	3.3	3.3	3.5	3.8	4.0	4.2	4.6	3.8	4.3	5.3	5.6	6.0	6.6	7.4
DC	8.5	8.7	15.2	10.6	13.0	13.6	13.4	2.5	3.0	9.1	3.6	5.5	6.8	4.8
DE	5.5	5.8	6.5	7.4	7.6	7.9	6.8	4.1	4.7	4.2	4.9	6.5	8.4	7.4
FL	7.1	7.6	7.7	7.9	8.1	8.7	8.9	4.3	5.6	6.6	8.0	8.2	8.6	9.3
GA	6.4	7.3	8.0	8.6	9.2	9.2	9.6	3.2	3.6	4.3	5.5	5.0	6.5	7.4
HI	19.8	17.2	13.7	18.3	14.7	13.5	15.0	3.7	6.3	3.9	4.5	7.0	4.4	4.1
IA	2.3	2.3	2.5	2.4	2.3	2.5	2.6	5.4	5.5	6.4	6.5	6.7	6.7	7.5
ID	1.7	1.8	2.5	2.2	2.3	2.5	2.0	6.9	7.7	9.0	10.8	9.8	10.3	10.9
IL	3.9	4.1	4.1	4.1	4.4	4.5	4.8	3.7	4.5	4.8	5.1	5.4	6.5	6.4
IN	5.0	5.2	6.1	6.3	6.2	6.2	6.3	7.2	8.7	9.2	8.6	8.4	8.8	9.0
KS	1.6	1.5	1.8	2.1	2.0	2.1	2.6	4.3	5.4	6.0	6.9	7.2	8.2	7.9
KY	10.5	11.2	12.4	12.8	11.2	11.3	10.5	8.9	10.6	11.5	10.5	10.0	10.8	11.8
LA	8.0	8.2	8.7	8.3	9.3	10.4	10.9	5.8	5.9	9.2	8.1	8.9	8.3	8.5
MA	2.9	2.9	3.3	3.3	3.9	3.9	4.0	3.6	4.4	5.2	5.9	6.2	7.3	7.7
MD	6.2	7.7	7.9	9.1	9.3	9.3	8.7	4.1	4.0	4.5	6.2	6.9	7.0	7.5
ME	2.9	2.7	2.3	2.3	2.8	3.2	2.9	4.8	5.0	6.0	5.7	6.9	7.7	8.8
MI	4.2	4.7	4.8	4.7	4.9	5.0	5.2	3.9	4.5	5.0	5.4	5.9	6.6	6.4
MN	2.0	2.1	2.0	1.9	2.0	2.1	2.2	4.1	4.8	5.5	5.9	6.4	7.4	7.8
MO	5.9	5.8	5.6	4.9	5.5	5.2	5.6	6.9	8.6	7.9	8.2	7.9	8.5	9.1
MS	5.8	6.9	8.0	7.6	8.4	9.1	9.2	1.8	3.0	4.2	5.2	5.8	7.4	7.9
MT	2.0	2.0	2.1	2.0	2.0	2.2	2.5	8.4	9.3	10.8	10.4	11.7	11.5	11.2
NC	9.6	9.3	9.7	9.7	9.7	10.1	10.5	4.2	5.0	5.9	6.7	6.3	7.3	7.7
ND	2.1	2.5	2.3	3.2	3.0	2.6	2.5	3.3	3.5	5.5	7.0	6.5	7.7	7.5
NE	2.0	1.9	2.0	2.1	2.2	2.3	2.5	3.7	5.0	6.0	6.7	6.8	7.6	8.2
NH	1.3	1.2	1.8	1.9	2.4	1.8	2.5	4.2	4.2	5.1	5.1	7.1	5.7	7.5
NJ	6.3	7.4	7.9	7.9	7.6	7.8	8.0	3.0	3.1	3.4	3.7	3.4	4.9	6.1
NM	4.0	3.4	3.1	3.5	3.4	3.9	4.1	7.2	9.0	11.6	10.6	13.3	14.8	13.0
NV	7.3	6.1	9.6	7.7	8.5	8.4	10.9	7.6	7.1	11.1	10.7	14.0	13.1	12.8
NY	6.7	7.0	7.5	7.3	7.7	8.0	7.9	2.6	3.0	3.5	3.9	4.4	5.3	6.1
OH	6.0	6.5	7.0	7.1	7.6	7.7	7.8	5.5	6.8	7.2	7.3	8.6	9.4	9.8
OK	6.1	5.7	6.3	5.8	6.3	7.1	6.6	5.0	5.9	6.7	6.0	6.7	7.6	8.8
OR	2.9	3.8	3.5	3.6	4.2	4.2	3.9	3.6	5.0	5.7	6.0	4.1	5.7	5.4
PA	6.5	6.4	6.3	6.3	6.5	6.6	6.7	5.5	6.4	7.1	8.7	9.8	10.4	11.6
RI	2.5	2.5	2.6	2.8	3.1	3.3	4.2	2.3	2.7	3.8	5.1	4.7	5.4	4.5
SC	7.4	7.1	8.9	8.5	8.8	9.4	9.8	2.4	2.5	3.5	5.2	4.3	7.0	6.6
SD	1.3	1.3	1.6	1.7	1.7	1.9	2.3	4.0	4.8	5.1	6.2	6.2	7.0	7.2
TN	7.4	8.1	8.1	8.7	8.5	7.9	8.2	4.2	4.9	6.7	7.5	6.9	8.8	8.6
TX	6.8	6.6	7.7	8.1	8.1	8.5	8.4	4.7	6.3	7.9	8.1	9.1	9.2	9.4
UT	2.6	2.7	2.5	2.5	2.5	2.2	2.7	6.7	9.6	9.4	10.5	8.8	11.1	12.1
VA	7.9	8.1	7.9	8.6	8.1	9.1	9.2	5.0	6.1	6.5	7.7	8.1	8.4	8.3
VT	2.1	2.9	1.0	2.3	2.0	3.4	2.8	3.8	4.3	6.7	4.9	6.1	7.5	7.6
WA	3.8	3.9	4.4	4.8	4.4	4.9	4.8	4.6	6.1	6.8	6.6	6.7	7.5	8.2
WI	2.5	2.7	2.8	2.9	2.7	2.9	2.7	4.3	4.7	5.3	5.5	5.9	6.7	7.3
WV	5.7	6.7	6.9	8.8	7.2	6.6	7.1	7.5	6.5	7.8	8.8	9.6	12.7	10.9
WY	2.1	2.1	1.6	2.0	2.4	1.7	1.9	10.1	17.7	15.1	14.4	15.1	14.9	20.0
US	5.5	5.7	6.2	6.3	6.5	6.7	6.9	4.8	5.7	6.6	7.0	7.3	8.1	8.5

TABLE 22
PERCENT OF RESIDENTS
WITH BLADDER INCONTINENCE & IN BLADDER TRAINING PROGRAM

	Bladder Incontinence							Bladder Training Program						
State	1991*	1992*	1993*	1994	1995	1996	1997	1991*	1992*	1993*	1994	1995	1996	1997
AK	54.3	54.3	52.8	48.8	48.8	45.0	47.8	20.8	26.0	15.2	22.8	15.9	12.8	8.3
AL	49.0	48.6	50.9	52.1	52.1	52.2	53.0	5.0	5.7	5.8	4.4	7.8	10.4	10.7
AR	42.5	45.0	43.8	46.0	44.8	43.9	45.9	5.6	6.3	6.1	6.6	5.5	4.9	3.8
AZ	43.7	46.1	46.4	47.7	46.6	48.2	47.7	2.6	2.5	2.0	3.5	2.9	2.0	2.5
CA	49.4	47.8	50.2	49.3	49.5	49.9	49.1	2.4	2.7	2.6	2.9	3.4	3.3	3.4
CO	44.9	44.1	43.0	45.4	46.5	45.7	46.3	3.3	3.6	4.6	4.4	4.9	4.4	3.9
CT	51.1	51.6	51.6	50.2	50.7	50.0	50.5	2.2	1.8	2.4	3.5	5.2	5.2	3.9
DC	48.8	53.0	56.1	54.9	56.9	55.8	56.2	18.8	3.8	7.5	13.0	8.3	6.4	12.8
DE	48.7	47.7	52.3	55.2	54.4	54.7	53.5	6.8	6.8	2.9	1.7	3.1	8.8	10.8
FL	44.8	48.6	49.2	48.8	48.3	47.7	47.8	8.9	6.5	7.2	6.6	7.5	8.4	7.3
GA	46.8	47.2	48.8	48.1	49.7	49.7	50.8	3.9	3.2	2.7	4.5	6.1	5.3	4.7
HI	56.8	62.6	59.9	60.6	59.8	56.0	53.8	6.0	4.3	6.5	5.8	11.8	10.1	7.0
IA	41.6	41.3	44.4	45.2	46.3	47.6	48.0	7.4	7.3	7.7	7.1	6.5	4.7	3.6
ID	49.6	50.4	48.9	47.1	45.4	49.8	48.2	4.4	4.2	6.3	5.4	8.5	6.8	4.9
IL	39.0	39.9	40.6	40.5	41.3	40.5	41.0	5.4	5.9	6.3	5.9	5.2	5.5	5.1
IN	41.9	42.6	43.8	44.2	44.4	44.6	45.9	4.8	4.2	4.0	4.0	5.1	5.7	4.5
KS	39.4	40.3	43.3	44.1	46.0	45.0	47.8	4.6	4.5	5.0	6.8	6.6	7.4	6.9
KY	48.7	51.1	51.1	53.0	51.5	53.6	53.7	4.8	4.6	4.7	4.3	3.9	3.8	3.6
LA	34.2	31.3	32.6	33.6	35.5	37.3	38.4	5.4	4.1	4.8	4.9	3.9	3.7	3.5
MA	52.2	53.1	54.2	54.3	53.7	53.7	53.0	2.0	2.3	2.1	1.8	2.3	3.4	3.4
MD	54.5	54.8	56.8	57.2	56.3	55.0	54.7	5.7	5.6	7.4	8.2	9.0	8.6	9.6
ME	54.3	53.2	51.4	49.6	53.6	60.9	62.1	10.5	9.4	9.8	14.8	14.8	16.5	16.2
MI	50.6	50.3	51.3	52.3	52.8	52.8	52.5	6.1	5.5	6.4	7.3	7.3	6.7	6.9
MN	49.7	48.9	50.3	51.9	53.3	52.1	53.9	4.6	4.7	4.5	5.7	6.0	5.6	7.6
MO	43.6	44.6	46.2	47.4	46.7	47.2	47.5	4.5	4.7	5.1	5.2	6.0	5.7	6.0
MS	43.9	45.2	46.6	44.8	46.0	44.6	44.0	3.7	3.6	5.6	6.3	6.8	5.4	4.1
MT	44.5	47.4	48.6	44.4	47.5	46.7	47.0	7.1	6.1	5.8	5.8	7.3	8.7	6.8
NC	55.3	51.4	52.3	51.8	53.1	52.7	54.1	3.2	2.7	2.4	3.5	5.3	8.6	9.7
ND	45.1	44.2	44.3	44.8	46.2	49.0	48.6	1.6	2.1	3.0	2.8	3.9	3.6	2.7
NE	43.3	43.8	45.0	44.5	46.0	44.5	44.6	6.2	6.9	8.4	7.7	10.4	10.8	6.8
NH	45.8	50.8	48.2	48.7	48.1	47.6	49.5	8.9	9.2	10.2	12.4	13.2	9.1	9.8
NJ	51.3	51.1	53.4	51.7	51.9	53.2	51.4	3.9	3.7	3.7	4.0	3.7	4.4	3.9
NM	47.1	48.9	48.9	45.5	44.4	45.3	46.8	4.4	3.5	4.0	5.3	6.0	4.4	4.5
NV	48.9	48.4	42.9	50.5	49.5	49.7	41.4	6.6	1.6	5.4	4.9	4.1	4.4	2.3
NY	61.3	59.7	59.9	61.1	60.7	60.9	61.0	4.4	5.2	5.6	5.5	6.1	5.9	6.7
OH	47.2	48.3	45.8	48.2	48.1	48.6	48.2	8.2	7.1	7.2	8.8	10.1	9.6	13.6
OK	38.3	40.1	40.6	42.3	43.5	44.2	44.3	4.7	5.1	5.4	4.3	3.8	3.9	3.9
OR	55.4	56.8	56.2	55.4	56.5	56.1	56.8	4.1	3.5	4.4	5.2	6.2	3.8	4.3
PA	50.4	51.6	52.7	54.1	54.4	54.4	54.5	6.5	6.2	5.9	6.8	7.8	7.8	8.1
RI	43.6	46.6	45.7	47.3	49.3	48.5	46.7	5.2	4.9	6.2	5.2	7.1	6.3	5.4
SC	55.2	57.0	56.1	57.8	58.9	60.6	60.7	2.3	1.7	2.2	2.1	2.8	2.6	4.3
SD	46.6	43.3	45.6	45.2	48.9	45.6	46.3	7.3	7.6	8.1	13.2	12.3	9.2	10.9
TN	44.8	45.7	46.5	48.5	49.3	48.2	50.3	5.1	4.4	4.6	5.2	6.5	6.7	5.4
TX	42.4	42.7	45.0	46.8	46.4	47.2	48.0	1.5	2.2	1.8	1.8	1.8	1.4	1.9
UT	46.3	43.4	42.4	42.8	45.9	48.4	46.2	7.0	6.2	5.8	4.5	6.7	6.0	7.2
VA	54.9	56.7	57.8	58.0	60.5	62.2	62.0	6.5	6.4	5.8	6.0	6.9	6.5	7.3
VT	56.1	58.9	56.6	56.8	52.4	59.2	53.6	3.1	3.6	2.6	11.8	12.7	9.1	7.4
WA	51.9	44.3	42.7	45.1	54.8	57.2	56.8	2.8	3.3	4.8	4.3	6.0	6.6	4.6
WI	48.6	45.9	46.7	48.9	48.9	48.9	49.0	6.6	6.1	7.3	7.1	8.9	8.2	8.3
WV	48.4	44.6	49.1	52.1	44.5	34.8	34.4	4.7	6.1	6.6	8.1	6.5	2.1	3.2
WY	39.5	40.9	42.0	40.5	39.1	45.4	42.5	6.9	3.8	4.9	11.1	17.7	24.3	16.7
US	47.0	47.0	48.1	48.8	49.2	49.4	49.7	4.8	4.8	5.0	5.3	5.9	5.9	6.0

* Some facility data are not available from historical records.

TABLE 22
PERCENT OF RESIDENTS
WITH BLADDER INCONTINENCE & IN BLADDER TRAINING PROGRAM

	Bladder Incontinence							Bladder Training Program						
State	1992	1993	1994	1995	1996	1997	1998	1992	1993	1994	1995	1996	1997	1998
AK	54.3	52.8	46.9	48.8	45.0	47.8	50.4	26.0	15.2	22.6	15.9	12.9	8.3	14.6
AL	48.6	50.9	52.1	52.1	52.2	53.0	55.5	5.7	5.6	4.4	7.8	10.4	10.7	12.4
AR	45.0	43.8	46.0	44.6	43.9	45.9	46.0	6.3	6.1	6.6	5.5	4.9	3.8	3.9
AZ	46.1	46.4	47.7	46.6	48.2	47.7	47.2	2.0	2.0	3.5	2.9	2.0	2.5	3.1
CA	47.8	50.2	49.3	49.5	49.9	49.1	49.9	2.7	2.6	2.9	3.4	3.3	3.4	3.1
CO	44.1	43.0	45.4	46.5	45.7	46.3	46.8	3.6	4.6	4.4	4.9	4.4	3.9	3.0
CT	51.6	51.6	50.2	50.7	50.0	50.5	51.0	1.8	2.4	3.5	5.2	5.2	3.9	4.7
DC	53.0	56.1	54.9	56.9	55.9	56.2	57.3	3.8	7.5	13.0	6.3	6.4	12.8	4.5
DE	47.7	52.3	55.2	54.4	54.7	53.5	55.7	6.8	2.9	1.7	3.1	8.8	10.8	11.7
FL	48.6	49.2	48.8	48.3	47.7	47.8	47.8	6.5	7.2	6.6	7.5	8.4	7.3	7.5
GA	47.2	48.6	48.1	49.7	49.7	50.8	52.8	3.2	2.7	4.5	6.1	5.3	4.7	4.4
HI	62.6	59.9	60.6	59.8	56.0	53.8	59.6	4.3	6.5	5.8	11.9	10.1	7.0	6.3
IA	41.3	44.4	45.2	46.3	47.6	49.0	49.5	7.3	7.7	7.1	6.5	4.7	3.8	4.4
ID	50.4	48.9	47.1	45.4	49.8	46.2	51.3	4.2	6.3	5.4	8.5	6.8	4.9	7.1
IL	39.9	40.6	40.5	41.3	40.5	41.0	42.2	5.9	6.3	5.9	5.2	5.5	5.1	3.7
IN	42.6	43.8	44.2	44.4	44.6	45.9	46.4	4.2	4.0	4.0	5.1	5.7	4.5	4.4
KS	40.3	43.3	44.1	46.0	45.0	47.6	48.6	4.5	5.0	6.8	6.6	7.4	6.9	7.0
KY	51.1	51.1	53.0	51.5	53.6	53.7	57.1	4.6	4.7	4.3	3.9	3.8	3.6	2.8
LA	31.3	32.6	33.6	35.5	37.3	38.4	40.4	4.1	4.8	4.9	3.9	3.7	3.5	2.9
MA	53.1	54.2	54.3	53.7	53.7	53.0	54.4	2.3	2.1	1.8	2.3	3.4	3.4	3.4
MD	54.8	56.8	57.2	56.3	55.0	54.7	55.9	5.6	7.4	8.2	9.0	8.6	9.6	8.0
ME	53.2	51.4	49.6	53.6	60.9	62.1	62.5	9.4	9.8	14.8	14.9	16.5	16.2	17.1
MI	50.3	51.3	52.3	52.8	52.8	52.5	53.0	5.5	6.4	7.3	7.3	6.7	8.0	8.8
MN	48.9	50.3	51.9	53.3	52.1	53.9	54.5	4.7	4.5	5.7	6.0	5.8	7.6	7.3
MO	44.6	46.2	47.4	46.7	47.2	47.5	48.8	4.7	5.1	5.2	6.9	5.7	6.0	5.4
MS	45.2	46.8	44.8	48.0	44.6	44.0	45.3	3.6	5.6	6.3	6.6	5.4	4.1	3.7
MT	47.4	48.6	44.4	47.5	46.7	47.0	48.0	6.1	5.8	5.6	7.3	9.7	8.8	8.2
NC	51.4	52.3	51.9	53.1	52.7	54.1	55.5	2.7	2.4	3.5	5.3	8.6	9.7	8.5
ND	44.2	44.3	44.8	46.2	49.0	48.6	52.1	2.1	3.0	2.9	3.9	3.6	2.7	2.5
NE	43.8	45.0	44.5	46.0	44.5	44.6	45.9	6.9	8.4	7.7	10.4	10.6	6.8	7.5
NH	50.6	48.2	48.7	48.1	47.6	49.5	51.5	9.2	10.2	12.4	13.2	9.1	9.8	8.5
NJ	51.1	53.4	51.7	51.9	53.2	51.4	51.2	3.7	3.7	4.0	3.7	4.4	3.9	3.8
NM	46.9	48.9	45.5	44.4	45.3	46.8	49.3	3.5	4.0	5.3	6.0	4.4	4.5	3.4
NV	46.4	42.9	50.5	49.5	49.7	41.4	49.3	1.6	5.4	4.9	4.1	4.4	2.3	6.0
NY	59.7	59.9	61.1	60.7	60.9	61.0	60.8	5.2	5.6	5.5	6.1	5.9	6.7	6.0
OH	46.3	45.8	48.2	48.1	48.6	48.2	50.3	7.1	7.2	8.6	10.1	9.6	13.5	12.5
OK	40.1	40.6	42.3	43.5	44.2	44.3	46.2	5.1	5.4	4.3	3.8	3.8	3.2	2.8
OR	56.8	58.2	55.4	56.5	56.1	56.8	57.7	3.5	4.4	5.2	6.2	3.6	4.3	2.7
PA	51.6	52.7	54.1	54.4	54.4	54.5	54.3	6.2	5.9	6.8	7.8	7.8	8.1	7.8
RI	46.6	45.7	47.3	49.3	48.5	46.7	48.1	4.9	6.2	5.2	7.1	6.3	5.4	8.1
SC	57.0	56.1	57.8	58.9	60.6	60.7	59.6	1.7	2.2	2.1	2.8	2.6	4.3	2.1
SD	43.3	45.6	45.2	48.9	45.6	46.3	48.9	7.6	9.1	13.2	12.3	9.2	16.9	11.0
TN	45.7	46.5	48.5	49.3	48.2	50.3	50.1	4.4	4.8	5.2	5.5	6.7	5.4	5.0
TX	42.7	45.0	46.8	46.4	47.2	48.0	48.3	2.2	1.8	1.6	1.6	1.4	1.2	1.5
UT	43.4	42.4	42.8	45.9	48.4	46.2	48.8	6.2	5.8	4.5	6.7	6.0	7.2	3.0
VA	56.7	57.8	59.0	60.5	62.2	62.0	63.9	6.4	5.8	6.0	6.9	8.5	7.3	7.5
VT	58.0	56.6	56.6	52.4	59.2	53.6	53.7	3.6	2.6	11.6	12.7	9.1	7.4	8.6
WA	44.3	42.7	45.1	54.8	57.2	55.6	58.0	3.3	4.8	4.3	6.0	6.6	4.6	3.6
WI	45.9	46.7	46.9	48.0	48.9	49.0	48.9	8.1	7.3	7.1	8.9	8.2	9.3	10.1
WV	44.6	49.1	52.1	44.5	34.8	34.4	32.5	8.1	6.8	8.1	6.5	2.1	3.2	1.3
WY	40.9	42.0	40.5	39.1	45.4	42.5	43.2	3.8	4.9	11.1	17.7	24.3	16.7	17.4
US	47.0	48.1	48.8	49.2	49.4	49.7	50.7	4.8	5.0	5.3	5.9	5.9	6.0	5.7

TABLE 25
AVERAGE RN, LPN/LVN, AND ASSISTANT HOURS PER RESIDENT DAY
IN FACILITIES WITH MEDICAID AND WITH MEDICARE/MEDICAID BEDS (TITLE 19 AND TITLE 18/19)

	RN Hours							LPN/LVN Hours							Assistant Hours						
State	1991*	1992*	1993*	1994	1995	1996	1997	1991*	1992*	1993*	1994	1995	1996	1997	1991*	1992*	1993*	1994	1995	1996	1997
AK	0.6	0.6	0.7	0.9	0.9	1.1	1.1	0.9	0.9	0.7	0.6	0.7	0.6	0.6	3.1	2.6	2.6	2.9	3.0	3.0	2.9
AL	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.7	0.8	0.8	0.8	0.8	0.8	0.8	2.4	2.5	2.5	2.4	2.4	2.5	2.4
AR	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.6	0.5	0.6	0.6	0.6	0.6	0.7	1.7	1.7	1.9	1.9	1.9	1.9	1.9
AZ	0.7	0.3	0.5	0.5	0.6	0.6	0.6	0.5	0.6	0.6	0.7	0.6	0.7	0.7	1.5	1.9	2.0	2.1	2.0	2.0	2.0
CA	0.4	0.3	0.3	0.4	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	2.0	2.0	2.0	2.1	2.0	2.1	2.1
CO	0.5	0.4	0.4	0.6	0.6	0.6	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6	1.8	1.8	1.9	1.8	1.8	1.9	2.0
CT	0.6	0.6	0.5	0.6	0.6	0.7	0.7	0.5	0.4	0.4	0.4	0.4	0.4	0.5	2.0	1.9	1.8	1.9	1.8	2.0	2.0
DC	0.7	0.7	0.5	0.6	0.5	0.6	0.6	0.7	0.6	0.7	0.6	0.7	0.7	0.6	2.4	2.4	2.1	2.4	2.4	2.4	2.4
DE	0.5	0.4	0.5	0.7	0.6	0.6	0.6	0.7	0.5	0.6	0.6	0.6	0.6	0.6	2.2	2.0	2.2	2.1	2.2	2.2	2.0
FL	0.3	0.3	0.3	0.4	0.4	0.5	0.5	0.7	0.7	0.7	0.7	0.7	0.7	0.7	2.0	2.0	2.0	1.9	2.0	2.0	2.0
GA	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.7	0.7	0.7	0.7	0.7	0.8	0.8	2.0	2.1	2.0	2.0	2.0	2.0	2.0
HI	0.5	0.6	0.7	0.7	0.7	0.7	0.7	0.5	0.6	0.5	0.6	0.6	0.5	0.6	2.0	2.1	2.2	2.5	2.4	2.2	2.4
IA	0.3	0.3	0.3	0.4	0.4	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.5	0.4	1.8	1.8	1.8	1.8	1.8	1.8	1.8
ID	0.4	0.3	0.4	0.6	0.6	0.6	0.7	0.6	0.5	0.7	0.6	0.6	0.7	0.7	2.4	1.8	2.5	2.5	2.5	2.5	2.4
IL	0.3	0.3	0.3	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.4	1.8	1.7	1.7	1.7	1.7	1.8	1.8
IN	0.2	0.3	0.2	0.3	0.4	0.4	0.5	0.6	0.8	0.7	0.7	0.7	0.7	0.8	1.9	1.9	1.9	1.7	1.7	1.7	1.8
KS	0.3	0.3	0.3	0.4	0.4	0.4	0.5	0.4	0.4	0.4	0.5	0.5	0.5	0.5	1.9	1.9	1.8	1.8	1.8	1.9	1.9
KY	0.3	0.3	0.3	0.4	0.4	0.4	0.5	0.8	0.8	0.8	0.7	0.7	0.8	0.7	2.1	2.2	2.3	2.2	2.1	2.2	2.2
LA	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.5	0.6	0.8	0.6	0.6	0.6	0.6	1.7	1.9	1.9	1.5	1.4	1.9	1.9
MA	0.5	0.4	0.4	0.5	0.6	0.7	0.7	0.8	0.5	0.5	0.6	0.6	0.6	0.5	2.1	2.0	2.0	2.1	2.1	2.2	2.1
MD	0.3	0.3	0.3	0.4	0.5	0.5	0.6	0.5	0.5	0.5	0.6	0.5	0.5	0.5	1.8	2.1	2.0	2.1	2.0	2.1	2.0
ME	1.3	0.4	0.4	0.6	0.7	0.6	0.6	0.9	0.5	0.5	0.4	0.5	0.4	0.4	1.9	2.4	2.5	2.5	2.7	2.6	2.7
MI	0.3	0.3	0.3	0.4	0.4	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	2.3	2.3	2.2	2.2	2.2	2.2	2.2
MN	0.3	0.3	0.3	0.4	0.4	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6	2.0	1.6	1.9	1.9	1.9	1.9	2.0
MO	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.5	0.5	0.5	0.6	0.6	0.6	0.6	2.0	2.1	2.1	2.0	2.1	2.1	2.1
MS	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.7	0.7	0.7	0.7	0.7	0.7	0.7	1.8	1.9	1.9	2.0	2.0	2.0	2.0
MT	0.5	0.5	0.5	0.5	0.6	0.7	0.7	0.5	0.5	0.5	0.5	0.5	0.5	0.5	2.3	2.2	2.2	2.2	2.2	2.2	2.2
NC	0.4	0.4	0.4	0.5	0.5	0.6	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7	2.3	2.3	2.3	2.2	2.2	2.3	2.2
ND	0.4	0.3	0.3	0.4	0.4	0.5	0.5	0.4	0.5	0.5	0.5	0.5	0.5	0.5	2.1	2.1	2.0	2.2	2.2	2.3	2.3
NE	0.3	0.3	0.3	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6	2.0	1.7	1.9	1.8	1.9	1.8	1.9
NH	0.5	0.6	0.5	0.7	0.7	0.7	0.8	0.5	0.5	0.5	0.5	0.5	0.5	0.5	2.2	2.2	2.1	2.3	2.3	2.1	2.2
NJ	0.5	0.5	0.4	0.6	0.6	0.6	0.7	0.5	0.5	0.5	0.5	0.5	0.5	0.5	2.1	2.0	2.0	2.1	2.1	2.0	2.1
NM	0.3	0.3	0.3	0.4	0.4	0.5	0.6	0.5	0.6	0.6	0.5	0.5	0.5	0.5	2.1	2.0	2.0	2.0	2.1	2.1	1.9
NV	0.7	0.6	0.6	1.0	0.6	0.9	0.9	0.9	0.8	0.9	0.9	0.9	0.9	0.8	2.9	1.8	2.3	2.0	2.1	2.2	2.4
NY	0.5	0.5	0.4	0.5	0.5	0.5	0.5	0.7	0.6	0.6	0.6	0.6	0.6	0.6	2.2	2.1	2.0	2.0	2.0	2.0	2.0
OH	0.3	0.3	0.3	0.4	0.5	0.6	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7	1.9	2.1	2.1	2.1	2.0	2.1	2.1
OK	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.4	0.5	0.5	0.5	0.5	0.5	0.5	1.5	1.7	1.8	1.8	1.9	2.0	2.0
OR	0.4	0.4	0.5	0.6	0.6	0.7	0.8	0.4	0.4	0.4	0.4	0.4	0.4	0.4	2.2	2.0	2.2	2.3	2.2	2.3	2.3
PA	0.5	0.4	0.4	0.6	0.6	0.6	0.7	0.6	0.5	0.6	0.6	0.6	0.6	0.6	2.1	1.7	2.0	2.0	2.0	2.0	2.0
RI	0.5	0.5	0.5	0.5	0.6	0.6	0.7	0.4	0.4	0.4	0.3	0.3	0.3	0.3	2.0	1.9	1.9	2.0	2.0	2.0	2.1
SC	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.7	0.7	0.7	0.6	0.7	0.6	0.6	2.2	2.1	2.1	2.2	2.1	2.1	2.1
SD	0.4	0.4	0.4	0.6	0.6	0.6	0.7	0.5	0.4	0.3	0.3	0.3	0.3	0.3	2.0	1.8	1.8	1.8	1.8	2.0	2.0
TN	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.6	0.6	0.6	0.7	0.7	0.7	0.7	1.8	1.7	1.8	1.8	1.8	1.9	1.9
TX	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.6	0.6	0.7	0.7	0.7	0.6	0.7	1.7	1.6	1.8	1.9	1.9	1.9	1.9
UT	0.3	0.2	0.2	0.3	0.4	0.5	0.6	0.7	0.6	0.6	0.6	0.5	0.6	0.5	1.7	1.6	1.8	1.8	1.7	1.8	1.8
VA	0.3	0.2	0.3	0.4	0.4	0.5	0.5	0.7	0.5	0.7	0.7	0.7	0.7	0.7	2.0	1.6	1.9	2.0	1.9	1.9	2.0
VT	0.6	0.3	0.4	0.5	0.4	0.5	0.6	0.8	0.8	0.7	0.8	0.8	0.8	0.6	2.2	1.8	2.1	1.9	1.9	2.1	2.1
WA	0.4	0.5	0.5	0.7	0.7	0.8	0.8	0.5	0.5	0.5	0.5	0.5	0.5	0.5	2.1	2.1	2.2	2.2	2.2	2.3	2.4
WI	0.4	0.4	0.4	0.6	0.6	0.6	0.7	0.4	0.4	0.4	0.4	0.4	0.4	0.4	2.0	2.0	2.1	2.1	2.1	2.1	2.2
WV	0.3	0.3	0.2	0.3	0.4	0.4	0.4	0.6	0.7	0.7	0.7	0.7	0.7	0.7	2.2	2.2	2.0	2.2	2.2	2.1	2.1
WY	0.5	0.4	0.4	0.6	0.6	0.7	0.7	0.5	0.6	0.5	0.5	0.5	0.4	0.5	2.1	2.0	2.1	2.1	2.1	2.2	2.2
US	0.3	0.3	0.3	0.4	0.4	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	2.0	1.9	2.0	2.0	2.0	2.0	2.0
Facilities	9129	12463	12132	12734	12823	12853	12761	9095	12418	12165	12730	12831	12875	12735	9083	12429	12083	12700	12812	12853	12708

* Some facility data are not available from historical records.

TABLE 25
AVERAGE RN, LPN/LVN, AND ASSISTANT HOURS PER RESIDENT DAY
IN FACILITIES WITH MEDICAID AND WITH MEDICARE/MEDICAID BEDS (TITLE 19 AND TITLE 18/19)

	RN Hours							LPN/LVN Hours							Assistant Hours						
State	1992	1993	1994	1995	1996	1997	1998	1992	1993	1994	1995	1996	1997	1998	1992	1993	1994	1995	1996	1997	1998
AK	0.6	0.7	0.9	0.9	1.1	1.1	1.2	0.9	0.7	0.8	0.7	0.6	0.6	0.6	2.6	2.6	2.9	3.0	3.0	2.8	2.8
AL	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.8	0.8	0.9	0.9	0.9	0.9	0.9	2.5	2.5	2.4	2.4	2.5	2.4	2.5
AR	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.5	0.6	0.6	0.6	0.6	0.7	0.7	1.7	1.9	1.9	1.9	1.9	1.9	1.9
AZ	0.3	0.5	0.5	0.6	0.6	0.6	0.7	0.6	0.8	0.7	0.6	0.7	0.7	0.7	1.0	2.0	2.1	2.0	2.0	2.0	2.0
CA	0.3	0.3	0.4	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	2.0	2.0	2.1	2.0	2.1	2.1	2.1
CO	0.4	0.4	0.6	0.6	0.6	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6	1.8	1.9	1.9	1.9	1.9	2.0	2.0
CT	0.6	0.5	0.6	0.6	0.7	0.7	0.7	0.4	0.4	0.4	0.4	0.4	0.5	0.5	1.9	1.8	1.9	1.8	2.0	2.0	2.1
DC	0.7	0.5	0.6	0.5	0.8	0.8	0.6	0.6	0.7	0.8	0.7	0.7	0.8	0.9	2.4	2.1	2.4	2.4	2.4	2.4	2.5
DE	0.4	0.5	0.7	0.8	0.8	0.9	0.8	0.5	0.6	0.6	0.6	0.6	0.6	0.5	2.0	2.2	2.1	2.2	2.2	2.0	2.3
FL	0.3	0.3	0.4	0.4	0.5	0.5	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7	2.0	2.0	1.9	2.0	2.0	2.0	1.9
GA	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.7	0.7	0.7	0.7	0.8	0.8	0.8	2.1	2.0	2.0	2.0	2.0	2.0	2.0
HI	0.6	0.7	0.7	0.7	0.7	0.7	0.9	0.6	0.5	0.6	0.6	0.5	0.6	0.5	2.1	2.2	2.5	2.4	2.2	2.4	2.2
IA	0.3	0.3	0.4	0.4	0.5	0.5	0.6	0.4	0.4	0.4	0.4	0.5	0.4	0.5	1.6	1.8	1.8	1.8	1.8	1.8	1.7
ID	0.3	0.4	0.6	0.6	0.6	0.7	0.7	0.5	0.7	0.6	0.6	0.7	0.7	0.6	1.8	2.5	2.5	2.5	2.5	2.4	2.3
IL	0.3	0.3	0.4	0.4	0.5	0.5	0.6	0.5	0.5	0.5	0.5	0.4	0.4	0.4	1.7	1.7	1.7	1.7	1.6	1.6	1.6
IN	0.3	0.2	0.3	0.4	0.4	0.5	0.5	0.6	0.7	0.7	0.7	0.7	0.8	0.8	1.9	1.9	1.7	1.7	1.7	1.6	1.6
KS	0.3	0.3	0.4	0.4	0.4	0.5	0.5	0.4	0.4	0.5	0.5	0.5	0.5	0.5	1.9	1.8	1.8	1.8	1.9	1.9	1.9
KY	0.3	0.3	0.4	0.4	0.4	0.5	0.5	0.6	0.6	0.7	0.7	0.6	0.7	0.7	2.2	2.3	2.2	2.1	2.2	2.2	2.3
LA	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.6	0.6	0.6	0.6	0.6	0.6	0.7	1.9	1.9	1.5	1.4	1.9	1.9	1.9
MA	0.4	0.4	0.5	0.6	0.7	0.7	0.8	0.5	0.5	0.6	0.6	0.6	0.5	0.6	2.0	2.0	2.1	2.1	2.2	2.1	2.2
MD	0.3	0.3	0.4	0.5	0.5	0.6	0.7	0.5	0.5	0.6	0.5	0.5	0.5	0.6	2.1	2.0	2.1	2.0	2.1	2.0	2.2
ME	0.4	0.4	0.6	0.7	0.8	0.8	0.9	0.5	0.5	0.4	0.5	0.4	0.4	0.4	2.4	2.5	2.5	2.7	2.6	2.7	2.7
MI	0.3	0.3	0.4	0.4	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	2.3	2.2	2.2	2.2	2.2	2.2	2.2
MN	0.3	0.3	0.4	0.4	0.5	0.5	0.6	0.5	0.6	0.6	0.6	0.6	0.6	0.6	1.8	1.9	1.9	1.9	1.9	2.0	1.9
MO	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.5	0.5	0.6	0.6	0.6	0.6	0.6	2.1	2.1	2.0	2.1	2.1	2.1	2.1
MS	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.7	0.7	0.7	0.7	0.7	0.7	0.8	1.9	1.9	2.0	2.0	2.0	2.0	2.0
MT	0.5	0.5	0.6	0.6	0.7	0.7	0.7	0.5	0.5	0.5	0.5	0.5	0.5	0.5	2.2	2.2	2.2	2.2	2.2	2.2	2.3
NC	0.4	0.4	0.5	0.5	0.6	0.6	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7	2.3	2.3	2.2	2.2	2.2	2.2	2.2
ND	0.3	0.3	0.4	0.4	0.5	0.5	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	2.1	2.0	2.2	2.2	2.3	2.3	2.3
NE	0.3	0.3	0.4	0.4	0.5	0.6	0.6	0.5	0.6	0.6	0.6	0.6	0.6	0.6	1.7	1.9	1.8	1.9	1.8	1.9	1.9
NH	0.6	0.5	0.7	0.7	0.7	0.8	0.8	0.5	0.5	0.5	0.5	0.5	0.5	0.5	2.2	2.1	2.3	2.3	2.1	2.2	2.1
NJ	0.5	0.4	0.6	0.6	0.6	0.7	0.7	0.5	0.5	0.5	0.5	0.5	0.5	0.5	2.0	2.0	2.1	2.1	2.0	2.1	2.1
NM	0.3	0.3	0.4	0.4	0.5	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.5	2.0	2.0	2.0	2.1	2.1	1.9	2.1
NV	0.6	0.8	1.0	0.8	0.9	0.9	1.0	0.8	0.9	0.9	0.9	0.9	0.8	0.6	1.8	2.3	2.0	2.1	2.2	2.4	2.2
NY	0.5	0.4	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	2.1	2.0	2.0	2.0	2.0	2.0	2.0
OH	0.3	0.3	0.4	0.5	0.6	0.6	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7	2.1	2.1	2.1	2.0	2.1	2.1	2.1
OK	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.7	1.8	1.8	1.9	2.0	2.0	2.0
OR	0.4	0.5	0.6	0.6	0.7	0.8	0.7	0.4	0.4	0.4	0.4	0.4	0.4	0.4	2.0	2.2	2.3	2.2	2.3	2.3	2.3
PA	0.4	0.4	0.6	0.6	0.6	0.7	0.7	0.5	0.6	0.6	0.6	0.6	0.6	0.7	1.7	2.0	2.0	2.0	2.0	2.0	2.1
RI	0.5	0.5	0.5	0.5	0.6	0.7	0.7	0.4	0.4	0.3	0.3	0.3	0.3	0.3	1.9	1.9	2.0	2.0	2.0	2.1	2.0
SC	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.7	0.7	0.8	0.7	0.8	0.8	0.7	2.1	2.1	2.2	2.1	2.1	2.1	2.0
SD	0.4	0.4	0.6	0.6	0.6	0.7	0.7	0.4	0.3	0.3	0.3	0.3	0.3	0.3	1.9	1.8	1.9	1.9	2.0	2.0	2.0
TN	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.6	0.6	0.7	0.7	0.7	0.7	0.7	1.7	1.8	1.8	1.8	1.8	1.9	1.8
TX	0.1	0.1	0.2	0.2	0.3	0.3	0.3	0.6	0.7	0.7	0.7	0.6	0.7	0.7	1.8	1.8	1.9	1.9	1.9	1.9	1.9
UT	0.2	0.2	0.3	0.4	0.5	0.6	0.4	0.6	0.6	0.6	0.5	0.6	0.5	0.5	1.8	1.8	1.8	1.7	1.8	1.6	2.0
VA	0.2	0.3	0.4	0.4	0.5	0.5	0.5	0.5	0.7	0.7	0.7	0.7	0.7	0.7	1.6	1.9	2.0	1.9	1.9	2.0	1.9
VT	0.3	0.4	0.5	0.4	0.5	0.6	0.6	0.6	0.7	0.8	0.6	0.6	0.6	0.7	1.8	2.1	1.9	1.9	2.1	2.1	2.3
WA	0.5	0.5	0.7	0.7	0.8	0.9	0.9	0.5	0.5	0.5	0.5	0.5	0.6	0.6	2.1	2.2	2.2	2.2	2.3	2.4	2.4
WI	0.4	0.4	0.6	0.6	0.6	0.7	0.7	0.4	0.4	0.4	0.4	0.4	0.4	0.4	2.0	2.1	2.1	2.1	2.1	2.2	2.1
WV	0.3	0.2	0.3	0.4	0.4	0.4	0.4	0.7	0.7	0.7	0.7	0.7	0.7	0.7	2.2	2.0	2.2	2.2	2.1	2.1	2.1
WY	0.4	0.4	0.6	0.6	0.7	0.7	0.8	0.6	0.5	0.5	0.5	0.4	0.5	0.5	2.0	2.1	2.1	2.1	2.2	2.2	2.2
US	0.3	0.3	0.4	0.4	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	1.9	2.0	2.0	2.0	2.0	2.0	2.0
Facilities	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####	####

TABLE 27
AVERAGE RN, LPN/LVN, AND ASSISTANT HOURS PER RESIDENT DAY
IN FACILITIES WITH MEDICARE ONLY BEDS (TITLE 18)

	RN Hours							LPN/LVN Hours							Assistant Hours						
State	1991*	1992*	1993*	1994	1995	1996	1997	1991*	1992*	1993*	1994	1995	1996	1997	1991*	1992*	1993*	1994	1995	1996	1997
AK	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1	0.0	0.0	0.0	0.0	0.0	0.0	3.4
AL	0.4	1.3	0.7	2.2	1.5	1.3	1.8	2.5	2.3	1.5	1.8	1.8	1.3	1.2	2.5	3.2	2.3	3.2	3.0	2.4	2.7
AR	3.2	2.5	2.0	2.4	2.3	1.7	2.0	3.0	3.0	2.5	2.1	1.5	1.5	1.0	2.5	2.3	2.5	2.4	2.0	2.2	2.2
AZ	0.4	0.5	0.8	2.4	1.1	2.1	2.0	0.5	0.8	0.8	2.1	1.1	0.0	1.0	1.8	2.0	2.4	3.0	2.6	1.7	2.0
CA	0.8	0.8	1.1	1.8	2.0	1.7	2.1	0.7	0.9	0.9	1.0	1.1	0.8	1.0	2.3	2.4	2.8	3.1	2.9	2.6	2.7
CO	1.6	1.3	1.8	3.3	1.9	1.9	2.0	1.0	0.8	2.1	2.2	1.1	1.1	1.1	2.0	2.3	2.8	3.0	2.2	2.2	2.2
CT	1.0	1.1	0.3	1.0	1.2	1.4	1.1	0.8	0.2	0.5	0.5	0.5	1.1	0.4	2.1	2.3	2.4	2.8	2.3	2.2	2.3
DC	0.4	0.0	0.0	0.0	0.0	0.4	0.6	0.6	0.0	0.0	0.0	0.0	0.7	0.0	2.1	0.0	0.0	2.3	0.0	2.1	2.2
DE	0.0	0.0	0.0	0.7	0.0	1.3	1.0	0.7	0.5	0.5	0.0	0.0	0.0	0.7	2.2	2.3	2.3	2.1	2.4	2.1	1.9
FL	0.0	0.7	0.0	1.1	1.4	1.0	1.5	0.0	1.0	1.0	1.1	1.1	1.2	1.0	2.2	2.3	2.2	2.3	2.4	2.3	2.2
GA	1.1	1.0	2.1	2.7	2.6	2.3	2.2	0.0	1.3	1.2	0.8	2.5	1.0	1.4	2.3	3.4	3.0	2.9	2.1	2.0	2.2
HI	1.0	0.0	0.7	0.8	0.6	0.4	0.0	0.7	2.3	0.6	0.2	0.3	0.3	0.5	2.4	3.1	2.5	1.0	2.1	2.0	2.1
IA	3.0	2.3	1.4	2.0	1.0	3.0	3.7	0.0	2.0	1.0	1.4	1.1	1.0	1.5	3.0	1.0	1.7	2.4	1.9	1.0	2.5
ID	0.0	0.0	1.4	1.5	1.0	1.0	2.4	0.0	0.0	0.5	3.0	1.2	1.4	1.7	0.0	0.0	1.0	3.7	2.0	3.3	3.1
IL	1.2	1.5	1.7	2.5	2.2	2.4	2.5	1.2	1.1	1.0	1.1	0.0	1.0	1.0	3.0	2.7	2.5	2.0	2.5	2.7	2.5
IN	1.2	1.5	1.7	1.4	1.7	1.5	1.7	1.2	1.0	1.4	1.0	1.2	1.2	1.3	3.1	3.7	3.5	2.5	2.7	2.2	2.4
KS	1.0	1.0	0.3	2.0	2.4	3.2	3.5	2.7	1.0	2.5	2.1	1.5	1.7	1.0	2.0	2.0	3.0	3.5	2.7	3.0	3.1
KY	0.0	1.2	1.3	1.0	1.5	1.5	2.0	0.0	1.2	2.4	1.5	2.0	1.0	1.5	2.4	3.2	4.0	2.0	2.0	2.5	2.7
LA	1.0	2.5	1.0	3.2	2.5	2.1	2.3	2.7	2.2	3.0	3.5	2.7	2.2	2.0	2.5	2.5	3.0	3.4	2.5	2.5	2.3
MA	1.3	0.0	0.0	1.0	2.1	1.1	2.5	1.7	1.1	1.2	1.1	0.7	1.2	1.2	2.0	2.0	2.3	2.1	3.4	2.5	3.1
MD	1.2	1.1	1.0	0.7	1.2	0.0	0.0	0.3	0.5	0.0	0.5	0.4	0.5	0.7	1.0	2.1	2.4	2.5	2.7	2.5	2.5
ME	0.0	0.5	0.4	0.0	0.5	0.0	1.0	0.0	0.5	0.0	0.4	0.5	0.5	0.5	0.0	2.7	2.0	2.5	2.7	3.0	2.0
MI	0.4	0.3	0.3	0.4	0.5	0.7	1.3	0.7	0.7	0.3	1.0	0.0	0.0	0.0	2.5	2.4	2.4	2.7	2.5	2.4	3.1
MN	0.5	0.7	0.5	1.1	0.5	1.1	1.1	0.7	0.7	0.7	0.7	0.7	1.0	0.5	2.2	1.0	2.3	1.7	1.0	1.0	2.3
MO	1.5	2.4	2.2	2.7	2.5	2.3	2.5	2.2	2.5	2.3	2.2	2.5	1.7	1.7	3.1	3.7	3.5	3.3	3.0	2.5	2.9
MS	2.3	1.5	1.7	4.7	4.4	2.5	3.1	3.2	5.2	4.2	5.0	3.7	1.7	1.5	2.2	3.1	3.2	5.2	3.5	2.5	2.5
MT	2.2	1.1	1.2	1.1	1.5	3.0	3.7	4.5	1.3	1.5	1.4	2.3	1.1	1.4	4.9	2.2	2.5	2.3	3.5	2.5	2.1
NC	1.2	0.7	1.4	2.5	0.5	1.0	0.9	1.2	0.3	1.4	0.5	0.2	0.5	0.5	4.2	2.7	3.0	2.5	2.3	3.0	2.7
ND	0.0	0.0	2.5	3.5	4.0	2.5	2.3	0.0	0.0	7.4	3.1	2.5	1.7	1.5	0.0	0.0	3.5	4.4	2.2	2.4	1.5
NE	2.5	2.1	1.5	1.9	1.4	1.5	2.0	1.5	1.1	1.0	1.0	1.0	0.9	1.1	1.7	2.0	2.2	2.1	1.9	2.3	2.2
NH	1.5	0.0	1.1	2.5	1.5	1.9	1.5	1.1	12.7	0.5	0.7	0.5	0.5	0.5	0.9	0.0	2.5	2.5	2.5	2.2	2.5
NJ	0.5	1.5	0.5	1.0	0.7	0.5	1.5	0.0	1.7	0.5	0.5	0.5	0.5	0.5	2.5	2.4	2.1	2.7	2.3	2.5	2.3
NM	0.5	4.0	0.0	3.5	1.5	1.7	2.1	1.0	2.5	0.0	3.2	1.1	0.3	0.5	2.1	3.0	0.0	3.7	2.3	2.5	2.7
NV	0.5	0.5	0.5	1.4	0.9	1.2	1.5	0.7	0.5	0.5	1.5	0.5	0.5	1.1	1.9	1.5	2.1	2.3	1.5	2.1	2.1
NY	0.5	0.2	0.0	0.0	0.0	0.4	0.3	0.7	0.5	0.0	0.0	0.0	0.7	0.0	3.0	2.7	0.0	0.0	0.0	2.5	0.0
OH	0.7	1.3	2.3	2.5	2.5	2.5	2.5	1.1	1.1	1.5	2.0	1.5	1.3	1.4	2.0	2.4	2.5	2.5	2.7	2.5	2.3
OK	1.1	1.0	1.0	2.7	2.3	2.0	2.7	1.4	2.5	2.0	2.4	2.7	1.0	2.4	2.5	2.7	2.7	2.5	2.7	2.3	2.4
OR	0.4	0.7	0.5	0.7	0.7	0.5	1.5	0.3	0.5	0.4	0.3	0.4	0.4	0.5	1.7	2.2	2.5	2.5	2.3	2.5	2.5
PA	1.5	1.1	1.5	2.3	2.4	2.4	2.5	1.4	0.5	1.1	1.7	1.5	1.1	1.2	2.5	1.5	2.5	3.1	2.4	2.7	2.5
RI	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.0	0.0	0.0	0.5	0.0	1.5	1.0	0.0	0.0	0.0	0.0
SC	0.5	0.5	1.0	1.1	1.2	1.7	1.5	1.1	1.1	1.5	1.5	1.5	1.3	1.1	2.5	2.7	3.2	3.2	2.5	2.5	2.5
SD	0.5	0.7	0.5	0.5	0.5	0.5	1.5	0.3	0.4	0.4	0.3	0.3	0.3	0.2	2.4	1.5	1.5	2.2	2.2	2.2	2.5
TN	1.2	0.5	0.3	2.5	2.5	2.5	2.5	1.5	1.5	1.5	2.4	2.3	1.5	1.7	2.7	2.4	1.5	2.5	2.5	2.4	2.5
TX	2.5	1.5	2.2	2.5	2.5	2.5	2.4	2.7	2.7	3.0	2.5	2.5	1.5	1.5	2.5	3.2	3.2	3.2	2.7	2.5	2.5
UT	0.3	1.3	1.0	1.0	1.0	0.5	1.1	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.5	2.4	2.5	2.4	2.2	2.1	2.3
VA	0.3	1.2	0.5	0.3	0.0	1.3	1.1	0.7	1.4	1.1	0.5	0.5	1.0	1.1	2.5	2.1	2.5	2.5	2.5	2.4	2.4
VT	0.5	0.5	0.0	0.0	0.0	0.5	0.0	0.5	0.4	0.0	0.0	0.5	0.0	0.0	2.3	2.3	0.0	0.0	0.0	0.0	0.0
WA	1.0	0.5	1.0	1.4	1.7	1.5	2.3	1.3	0.5	0.7	0.5	0.7	0.7	0.5	2.5	1.5	2.5	2.5	2.0	2.7	2.7
WI	0.0	2.1	0.0	1.5	2.4	2.1	2.5	0.0	1.3	0.5	0.0	1.5	0.5	0.7	0.0	3.7	2.7	2.3	4.2	2.0	2.2
WV	1.0	3.1	1.3	2.0	3.4	1.0	1.7	0.5	3.7	1.7	2.1	2.0	1.5	1.7	4.4	2.3	2.7	4.1	3.0	2.1	2.5
WY	3.0	4.7	5.2	5.1	5.1	4.0	4.7	4.3	1.5	2.0	2.5	2.5	2.5	2.7	7.1	5.1	2.0	2.1	2.1	1.2	0.0
US	1.0	1.2	1.4	1.9	1.8	1.9	2.1	1.2	1.4	1.5	1.6	1.4	1.3	1.3	2.4	2.5	2.7	2.8	2.6	2.5	2.5
Facilities	819	1,119	1,234	1,294	1,479	1,494	1,781	821	1,109	1,249	1,496	1,447	1,613	1,772	819	1,109	1,239	1,272	1,479	1,499	1,793

* Some facility data are not available from historical records.

TABLE 27
AVERAGE RN, LPN/LVN, AND ASSISTANT HOURS PER RESIDENT DAY
IN FACILITIES WITH MEDICARE ONLY BEDS (TITLE 18)

	RN Hours							LPN/LVN Hours							Assistant Hours						
State	1992	1993	1994	1995	1996	1997	1998	1992	1993	1994	1995	1996	1997	1998	1992	1993	1994	1995	1996	1997	1998
AK	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1	0.0	0.0	0.0	0.0	0.0	0.0	3.4	0.0
AL	1.3	0.7	2.2	1.5	1.3	1.8	1.6	2.3	1.5	1.8	1.8	1.3	1.2	1.8	3.2	2.9	3.2	3.0	2.4	2.7	3.1
AR	2.5	2.0	2.4	2.3	1.7	2.0	1.8	3.0	2.5	2.1	1.8	1.5	1.9	1.5	2.3	2.6	2.4	2.0	2.2	2.2	2.5
AZ	0.5	0.8	2.4	1.1	2.1	2.8	2.4	0.6	0.8	2.1	1.1	0.9	1.0	0.8	2.0	2.4	3.8	2.6	1.7	2.6	3.3
CA	0.8	1.1	1.8	2.0	1.7	2.1	2.1	0.9	0.9	1.0	1.1	0.9	1.0	1.0	2.4	2.6	3.1	2.9	2.6	2.7	2.8
CO	1.3	1.8	3.3	1.9	1.9	2.9	2.2	0.8	2.1	2.2	1.1	1.1	1.1	1.0	2.8	2.8	3.6	2.2	2.2	2.2	2.2
CT	1.1	0.9	1.0	1.2	1.4	1.1	1.1	0.2	0.5	0.5	0.5	1.1	0.4	0.4	2.6	2.4	2.6	2.5	2.2	2.3	2.5
DC	0.0	0.0	0.6	0.0	0.4	0.6	0.5	0.0	0.0	0.6	0.0	0.7	0.8	0.9	0.0	0.0	2.8	0.0	2.1	2.2	2.4
DE	0.8	0.8	0.7	0.8	1.3	1.6	1.4	0.5	0.6	0.6	0.6	0.6	0.7	0.6	2.3	2.3	2.1	2.4	2.1	1.9	2.7
FL	0.7	0.8	1.1	1.4	1.6	1.6	1.7	1.0	1.0	1.1	1.1	1.2	1.0	1.1	2.3	2.2	2.3	2.4	2.3	2.2	2.2
GA	1.9	2.1	2.7	2.6	2.3	2.2	3.8	1.3	1.2	0.8	2.6	1.0	1.4	1.5	3.4	3.0	2.9	2.1	3.0	2.2	2.4
HI	6.0	0.7	0.5	0.8	0.4	0.9	0.8	2.3	0.6	0.2	0.3	0.3	0.3	0.3	3.1	2.5	1.0	2.1	2.0	2.1	2.1
IA	2.3	1.4	2.6	1.8	3.0	3.7	3.5	2.0	1.9	1.4	1.1	1.0	1.3	1.4	1.8	1.7	2.4	1.9	1.8	2.5	2.0
ID	0.0	1.4	1.8	1.6	1.9	2.4	1.6	0.0	0.5	3.8	1.2	1.4	1.7	0.9	0.0	1.9	3.7	2.9	3.3	3.1	2.5
IL	1.5	1.7	2.5	2.2	2.4	2.6	2.5	1.1	1.0	1.1	0.8	1.0	1.0	0.9	2.7	2.8	2.9	2.6	2.7	2.6	2.6
IN	1.5	1.7	1.4	1.7	1.5	1.7	2.0	1.6	1.4	1.6	1.2	1.2	1.3	1.2	3.7	3.6	2.8	2.7	2.2	2.4	2.3
KS	1.8	3.3	2.9	2.4	3.2	3.5	3.9	1.8	2.5	2.1	1.6	1.7	1.8	1.4	2.6	3.0	3.5	2.7	3.9	3.1	2.8
KY	1.2	1.3	1.6	1.8	1.8	2.0	2.0	1.2	2.4	1.6	2.0	1.6	1.5	1.4	3.2	4.0	2.8	2.8	2.5	2.7	2.4
LA	2.5	1.9	3.2	2.6	2.1	2.3	2.4	3.2	3.3	3.5	2.7	2.2	2.0	2.0	2.5	3.0	3.4	2.8	2.6	2.3	2.4
MA	0.8	0.8	1.0	2.1	1.1	2.9	2.5	1.1	1.2	1.1	0.7	1.2	1.2	0.9	2.0	2.3	2.1	3.4	2.5	3.1	2.3
MD	1.1	1.0	0.7	1.2	0.9	0.9	1.0	0.5	0.6	0.5	0.4	0.5	0.7	0.8	2.1	2.4	2.5	2.7	2.5	2.5	2.9
ME	0.5	0.4	0.6	0.6	0.8	1.0	1.3	0.5	0.6	0.4	0.5	0.5	0.5	0.6	2.7	2.6	2.6	2.7	3.0	2.9	3.4
MI	0.3	0.3	0.4	0.5	0.7	1.3	1.2	0.7	0.9	1.0	0.9	0.8	0.8	0.9	2.4	2.4	2.7	2.5	2.4	3.1	2.6
MN	0.7	0.8	1.1	0.8	1.1	1.1	1.1	0.7	0.7	0.7	0.7	1.0	0.9	0.9	1.8	2.3	1.7	1.9	1.9	2.3	2.4
MO	2.4	2.2	2.7	2.6	2.3	2.6	2.7	2.8	2.3	2.2	2.0	1.7	1.7	1.6	3.7	3.5	3.3	3.0	2.8	2.9	2.7
MS	1.5	1.7	4.7	4.4	2.8	3.1	4.0	5.2	4.2	6.0	3.7	1.7	1.8	2.2	3.1	3.2	5.2	3.5	2.8	2.6	2.9
MT	1.1	1.2	1.1	1.5	3.0	3.7	2.0	1.3	1.8	1.4	2.3	1.1	1.4	1.8	2.2	2.6	2.3	3.6	2.5	2.1	2.3
NC	0.7	1.4	0.8	0.8	1.0	0.9	1.2	0.8	1.4	0.9	0.9	0.9	0.8	1.0	2.7	3.9	2.9	2.8	3.0	2.7	2.4
ND	0.0	3.8	3.5	4.0	2.3	2.3	3.9	0.0	7.4	3.1	2.5	1.7	1.8	2.7	0.0	3.8	4.4	2.2	2.4	1.9	1.9
NE	2.1	1.3	1.0	1.4	1.5	2.0	2.0	1.1	1.0	1.0	1.0	0.9	1.1	0.7	2.0	2.2	2.1	1.9	2.3	2.2	2.3
NH	0.0	1.1	2.5	1.5	1.9	1.8	1.6	12.7	0.6	0.7	0.6	0.5	0.6	0.7	0.0	2.6	2.6	2.5	2.2	2.8	4.0
NJ	1.6	0.8	1.0	0.7	0.9	1.6	3.2	1.7	0.8	0.6	0.6	0.6	0.6	1.3	2.4	2.1	2.7	2.3	2.5	2.3	3.2
NM	4.0	0.0	3.8	1.6	1.7	2.1	1.5	2.6	0.0	3.2	1.1	0.3	0.6	0.6	3.0	0.0	3.7	2.2	2.6	2.7	2.7
NV	0.6	0.5	1.4	0.9	1.2	1.9	1.4	0.8	0.9	1.3	0.9	0.8	1.1	0.6	1.6	2.1	2.3	1.8	2.1	2.1	1.8
NY	0.2	0.0	0.0	0.0	0.4	0.0	0.0	0.6	0.0	0.0	0.0	0.7	0.0	0.0	2.7	0.0	0.0	0.0	2.8	0.0	0.0
OH	1.3	2.8	2.6	2.5	2.5	2.8	2.6	1.1	1.5	2.0	1.8	1.3	1.4	1.2	2.4	2.9	2.9	2.7	2.3	2.3	2.1
OK	1.9	1.6	2.7	2.3	2.0	2.7	2.6	2.6	2.0	2.4	2.7	1.8	2.4	2.2	2.7	2.7	2.5	2.7	2.3	2.4	2.7
OR	0.7	0.5	0.7	0.7	0.6	1.5	0.9	0.5	0.4	0.3	0.4	0.4	0.6	0.5	2.2	2.6	2.2	2.3	2.5	2.9	2.4
PA	1.1	1.5	2.8	2.4	2.4	2.6	2.8	0.8	1.1	1.7	1.6	1.1	1.2	1.3	1.9	2.3	3.1	2.4	2.7	2.5	2.4
RI	0.3	0.0	0.0	0.0	0.0	0.0	0.5	0.3	0.3	0.0	0.0	0.0	0.0	0.2	1.5	1.0	0.0	0.0	0.0	0.0	0.9
SC	0.6	1.0	1.1	1.2	1.7	1.8	1.6	1.1	1.5	1.5	1.6	1.3	1.1	1.0	2.7	3.2	3.2	2.8	2.8	2.8	2.3
SD	0.7	0.6	0.8	0.8	0.8	1.0	1.0	0.4	0.4	0.3	0.3	0.3	0.2	0.2	1.8	1.9	2.2	2.2	2.2	2.5	2.1
TN	0.9	0.9	3.6	2.8	2.6	2.3	2.2	1.3	1.9	2.4	2.3	1.9	1.7	1.6	2.4	1.9	2.9	2.8	2.4	2.6	2.2
TX	1.9	2.2	2.6	2.6	2.5	2.4	2.2	2.7	3.0	2.5	2.0	1.8	1.6	1.6	3.2	3.2	3.2	2.7	2.6	2.6	2.5
UT	1.3	1.0	1.0	1.0	0.8	1.1	1.2	0.8	0.8	0.6	0.6	0.6	0.6	0.7	2.4	2.6	2.4	2.2	2.1	2.3	2.5
VA	1.2	0.6	0.9	0.9	1.3	1.1	1.0	1.4	1.1	0.9	0.9	1.0	1.1	1.3	3.1	2.5	2.3	2.2	2.4	2.4	2.3
VT	0.6	0.0	0.0	0.0	0.0	0.0	0.7	0.4	0.0	0.0	0.0	0.0	0.0	0.7	2.3	0.0	0.0	0.0	0.0	0.0	2.2
WA	0.8	1.0	1.4	1.7	1.8	2.3	2.6	0.6	0.7	0.6	0.7	0.7	0.8	0.7	1.8	2.6	2.6	2.9	2.7	2.7	3.2
WI	2.1	0.9	1.5	2.4	2.1	2.5	2.4	1.3	0.5	0.9	1.5	0.6	0.7	0.6	3.7	2.7	2.3	4.2	2.9	2.2	2.1
WV	3.1	1.3	2.0	3.4	1.9	1.7	3.0	3.7	1.7	2.1	2.9	1.6	1.7	1.2	2.3	2.7	4.1	3.6	2.1	2.5	2.6
WY	4.7	3.2	3.1	3.1	4.9	4.7	4.4	1.6	2.8	2.6	2.8	2.6	2.7	1.8	3.1	2.0	2.1	2.1	1.2	0.9	1.5
US	1.2	1.4	1.9	1.9	1.9	2.1	2.2	1.4	1.5	1.6	1.4	1.3	1.3	1.3	2.5	2.7	2.9	2.6	2.5	2.5	2.5
Facilities	1,110	1,234	1,384	1,470	1,594	1,761	1,757	1,108	1,240	1,408	1,467	1,612	1,772	1,773	1,108	1,230	1,382	1,475	1,609	1,769	1,760

TABLE 29
AVERAGE RN, LPN/LVN, & ASSISTANT HOURS PER RESIDENT DAY
IN ALL CERTIFIED NURSING FACILITIES IN THE U.S.

	RN Hours							LPN/LVN Hours							Assistant Hours						
State	1991*	1992*	1993*	1994	1995	1996	1997	1991*	1992*	1993*	1994	1995	1996	1997	1991*	1992*	1993*	1994	1995	1996	1997
AK	0.6	0.6	0.7	0.9	0.8	1.1	1.1	0.0	0.0	0.7	0.8	0.7	0.8	0.8	2.1	2.6	2.6	2.9	8.0	2.8	2.9
AL	0.2	0.3	0.2	0.4	0.4	0.4	0.5	0.8	0.8	0.8	0.8	0.8	0.9	0.9	2.4	2.5	2.5	2.5	2.4	2.5	2.4
AR	0.4	0.3	0.3	0.4	0.4	0.4	0.5	0.8	0.7	0.8	0.8	0.8	0.8	0.8	1.8	1.7	1.9	2.0	1.9	1.9	2.0
AZ	0.4	0.5	0.8	0.8	0.6	0.7	0.8	0.6	0.6	0.8	0.9	0.7	0.7	0.7	1.8	1.9	2.3	2.4	2.1	2.8	2.1
CA	0.4	0.4	0.4	0.6	0.6	0.8	0.8	0.6	0.8	0.8	0.8	0.8	0.8	0.8	2.1	2.1	2.1	2.2	2.1	2.1	2.2
CO	0.6	0.5	0.8	1.0	0.8	0.8	1.0	0.8	0.8	0.7	0.9	0.7	0.7	0.7	1.8	1.8	2.0	2.2	1.9	1.9	2.0
CT	0.6	0.6	0.8	0.7	0.8	0.7	0.7	0.5	0.4	0.4	0.4	0.4	0.5	0.5	2.0	1.9	1.9	1.9	1.8	2.0	2.0
DC	0.7	0.7	0.5	0.5	0.5	0.8	0.8	0.8	0.8	0.7	0.8	0.7	0.7	0.8	2.4	2.4	2.1	2.4	2.4	2.4	2.4
DE	0.6	0.5	0.8	0.7	0.8	0.8	1.2	0.7	0.5	0.6	0.6	0.6	0.8	0.8	2.2	2.1	2.3	2.1	2.5	2.1	2.0
FL	0.4	0.4	0.4	0.5	0.6	0.8	0.8	0.7	0.7	0.8	0.8	0.8	0.8	0.8	2.0	2.0	2.0	2.0	2.1	2.0	2.0
GA	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.7	0.7	0.7	0.7	0.8	0.8	0.8	2.0	2.1	2.0	2.0	2.0	2.0	2.0
HI	0.5	1.0	0.7	0.7	0.7	0.7	0.8	0.5	0.7	0.5	0.5	0.5	0.5	0.5	2.0	2.2	2.2	2.3	2.4	2.2	2.3
IA	0.3	0.3	0.3	0.5	0.5	0.5	0.6	0.4	0.4	0.4	0.5	0.5	0.5	0.5	1.8	1.8	1.8	1.8	1.8	1.8	1.8
ID	0.4	0.3	0.4	0.7	0.7	0.8	1.1	0.6	0.5	0.7	1.0	0.7	0.8	0.9	2.4	1.8	2.4	2.8	2.5	2.8	2.6
IL	0.3	0.4	0.4	0.6	0.6	0.7	0.8	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.7	1.8	1.8	1.8	1.8	1.7	1.8
IN	0.3	0.3	0.3	0.6	0.5	0.6	0.7	0.6	0.7	0.7	0.8	0.8	0.8	0.8	2.0	2.0	2.0	1.8	1.8	1.8	1.8
KS	0.4	0.3	0.4	0.5	0.5	0.6	0.7	0.6	0.5	0.6	0.6	0.6	0.6	0.6	1.9	1.9	1.9	1.9	1.9	2.0	2.0
KY	0.3	0.4	0.4	0.6	0.6	0.7	0.8	0.6	0.6	0.8	0.8	0.8	0.8	0.8	2.1	2.3	2.6	2.3	2.3	2.3	2.4
LA	0.3	0.4	0.3	0.5	0.5	0.5	0.6	0.8	0.8	0.9	1.0	0.8	0.9	0.9	1.8	2.0	2.1	1.7	1.8	2.0	1.9
MA	0.5	0.4	0.4	0.5	0.6	0.7	0.8	0.6	0.5	0.5	0.6	0.6	0.6	0.6	2.1	2.0	2.0	2.1	2.1	2.2	2.2
MD	0.4	0.4	0.3	0.4	0.5	0.5	0.6	0.5	0.5	0.5	0.6	0.5	0.5	0.5	1.8	2.1	2.1	2.1	2.1	2.1	2.1
ME	1.3	0.4	0.4	0.6	0.6	0.5	0.9	0.9	0.5	0.6	0.4	0.5	0.5	0.5	1.9	2.5	2.6	2.6	2.7	2.5	2.6
MI	0.3	0.3	0.3	0.4	0.4	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	2.3	2.3	2.2	2.2	2.2	2.2	2.3
MN	0.4	0.3	0.3	0.4	0.4	0.5	0.6	0.6	0.5	0.6	0.6	0.6	0.6	0.6	2.0	1.9	1.9	1.9	1.9	1.9	2.0
MO	0.4	0.4	0.5	0.6	0.6	0.6	0.7	0.7	0.6	0.6	0.6	0.6	0.7	0.7	2.1	2.3	2.3	2.2	2.2	2.2	2.2
MS	0.2	0.2	0.2	0.4	0.5	0.7	0.8	0.7	0.7	0.8	0.8	1.0	0.8	0.8	1.9	1.9	1.9	2.1	2.1	2.1	2.2
MT	0.5	0.5	0.5	0.5	0.5	0.8	1.0	0.7	0.5	0.6	0.5	0.5	0.5	0.6	2.4	2.2	2.2	2.2	2.2	2.3	2.2
NC	0.4	0.4	0.4	0.6	0.5	0.6	0.5	0.7	0.7	0.6	0.7	0.7	0.7	0.7	2.4	2.3	2.4	2.3	2.3	2.3	2.3
ND	0.4	0.3	0.4	0.5	0.7	0.8	0.7	0.4	0.5	0.5	0.6	0.6	0.6	0.6	2.1	2.1	2.0	2.3	2.2	2.3	2.3
NE	0.3	0.3	0.3	0.5	0.5	0.6	0.6	0.6	0.5	0.5	0.6	0.6	0.6	0.6	2.0	1.7	1.8	1.8	1.8	1.8	1.8
NH	0.8	0.8	0.5	0.8	0.7	0.6	0.8	0.5	0.7	0.5	0.5	0.5	0.5	0.5	2.3	2.2	2.1	2.3	2.3	2.1	2.3
NJ	0.5	0.5	0.6	0.6	0.5	0.6	0.7	0.5	0.5	0.5	0.5	0.5	0.5	0.5	2.1	2.0	2.0	2.1	2.1	2.1	2.1
NM	0.3	0.4	0.3	0.7	0.5	0.6	0.9	0.6	0.7	0.6	0.7	0.6	0.5	0.5	2.1	2.1	2.0	2.1	2.1	2.2	2.1
NV	0.6	0.6	0.6	1.3	0.9	1.2	1.7	0.7	0.8	0.9	1.2	0.9	0.8	1.1	2.1	1.7	2.1	2.3	1.9	2.1	2.2
NY	0.5	0.5	0.4	0.5	0.5	0.5	0.5	0.7	0.5	0.6	0.6	0.6	0.6	0.6	2.2	2.1	2.0	2.0	2.0	2.0	2.0
OH	0.4	0.4	0.5	0.6	0.6	0.7	0.8	0.7	0.7	0.6	0.6	0.6	0.6	0.6	1.9	2.1	2.1	2.1	2.1	2.1	2.1
OK	0.2	0.3	0.3	0.4	0.3	0.4	0.5	0.5	0.7	0.7	0.7	0.7	0.6	0.8	1.8	1.8	1.9	1.9	1.9	2.1	2.1
OR	0.4	0.4	0.5	0.7	0.8	0.7	0.8	0.4	0.4	0.4	0.4	0.4	0.4	0.4	2.2	2.0	2.3	2.3	2.2	2.3	2.3
PA	0.5	0.4	0.5	0.8	0.8	0.8	1.0	0.8	0.6	0.7	0.7	0.7	0.7	0.7	2.1	1.7	2.1	2.2	2.1	2.1	2.1
RI	0.6	0.6	0.6	0.6	0.6	0.8	0.7	0.4	0.4	0.4	0.3	0.3	0.3	0.3	2.0	1.8	1.9	2.0	2.0	2.0	2.1
SC	0.3	0.3	0.4	0.5	0.6	0.6	0.7	0.7	0.6	0.6	0.9	0.8	0.8	0.9	2.3	2.2	2.3	2.3	2.2	2.2	2.3
SD	0.4	0.4	0.4	0.8	0.6	0.6	0.7	0.3	0.4	0.3	0.3	0.3	0.3	0.3	2.0	1.8	1.8	1.9	1.9	2.0	2.0
TN	0.2	0.2	0.2	0.5	0.5	0.5	0.6	0.8	0.8	0.7	0.8	0.8	0.8	0.8	1.9	1.8	1.8	1.9	1.9	1.9	2.0
TX	0.3	0.3	0.4	0.6	0.7	0.8	0.8	0.8	0.8	1.0	1.0	0.9	0.8	0.9	1.8	1.9	2.0	2.1	2.0	2.1	2.1
UT	0.8	0.7	0.8	0.9	0.8	0.7	1.0	0.8	0.7	0.8	0.8	0.8	0.8	0.8	1.8	2.1	2.3	2.2	2.1	2.0	2.1
VA	0.3	0.3	0.3	0.4	0.4	0.5	0.6	0.7	0.8	0.7	0.7	0.7	0.7	0.8	2.0	1.7	2.0	2.0	2.0	1.9	7.9
VT	0.6	0.4	0.4	0.5	0.4	0.5	0.5	0.5	0.6	0.7	0.8	0.6	0.6	0.6	2.2	1.8	2.1	1.9	1.8	2.1	2.1
WA	0.5	0.5	0.6	0.7	0.7	0.8	0.9	0.5	0.5	0.5	0.5	0.5	0.5	0.5	2.1	2.1	2.3	2.2	2.3	2.3	2.4
WI	0.4	0.4	0.4	0.6	0.5	0.6	0.7	0.4	0.4	0.4	0.4	0.4	0.4	0.4	2.0	2.0	2.1	2.1	2.1	2.1	2.2
WV	0.3	0.5	0.3	0.4	0.5	0.6	0.5	0.9	0.9	0.7	0.8	0.8	0.8	0.9	2.3	2.2	2.0	2.3	2.3	2.1	2.1
WY	0.5	0.5	0.6	0.7	0.7	0.8	1.0	0.7	0.6	0.7	0.8	0.6	0.6	0.8	2.3	2.0	2.1	2.1	2.1	2.1	2.1
US	0.4	0.4	0.4	0.6	0.6	0.6	0.7	0.6	0.6	0.7	0.7	0.7	0.7	0.7	2.0	2.0	2.1	2.1	2.0	2.1	2.1
Facilities	9939	13573	13368	14106	14093	14446	14462	9916	13526	13345	14126	14118	14487	14507	8899	13520	13313	14100	14087	14462	14477

* Some facility data are not available from historical records.

TABLE 29
AVERAGE RN, LPN/LVN, & ASSISTANT HOURS PER RESIDENT DAY
IN ALL CERTIFIED NURSING FACILITIES IN THE U.S.

	RN Hours							LPN/LVN Hours							Assistant Hours						
State	1992	1993	1994	1995	1996	1997	1998	1992	1993	1994	1995	1996	1997	1998	1992	1993	1994	1995	1996	1997	1998
AK	0.6	0.7	0.9	0.8	1.1	1.1	1.2	0.9	0.7	0.8	0.7	0.6	0.8	0.6	2.6	2.6	2.9	3.0	3.0	2.9	2.8
AL	0.3	0.2	0.4	0.4	0.4	0.5	0.5	0.8	0.8	0.9	0.9	0.9	0.9	1.0	2.5	2.5	2.5	2.4	2.5	2.4	2.5
AR	0.3	0.3	0.4	0.4	0.4	0.5	0.5	0.7	0.8	0.8	0.8	0.8	0.9	0.8	1.7	1.9	2.0	1.9	1.9	2.0	2.0
AZ	0.5	0.8	0.8	0.6	0.7	0.9	0.9	0.6	0.8	0.9	0.7	0.7	0.7	0.7	1.9	2.3	2.4	2.1	2.0	2.1	2.1
CA	0.4	0.4	0.6	0.6	0.6	0.8	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6	2.1	2.1	2.2	2.1	2.1	2.2	2.1
CO	0.5	0.8	1.0	0.8	0.8	1.0	1.0	0.8	0.7	0.9	0.7	0.7	0.7	0.7	1.8	2.0	2.2	1.9	1.9	2.0	2.0
CT	0.6	0.6	0.7	0.6	0.7	0.7	0.8	0.4	0.4	0.4	0.4	0.5	0.5	0.5	1.9	1.9	1.9	1.9	2.0	2.0	2.1
DC	0.7	0.5	0.6	0.5	0.8	0.8	0.8	0.6	0.7	0.8	0.7	0.7	0.8	0.9	2.4	2.1	2.4	2.4	2.4	2.4	2.6
DE	0.5	0.6	0.7	0.8	0.9	1.2	1.1	0.5	0.6	0.6	0.6	0.6	0.6	0.5	2.1	2.3	2.1	2.3	2.1	2.0	2.4
FL	0.4	0.4	0.5	0.6	0.8	0.8	0.9	0.7	0.8	0.8	0.8	0.8	0.8	0.8	2.0	2.0	2.0	2.1	2.0	2.0	2.0
GA	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.7	0.7	0.7	0.8	0.8	0.8	0.8	2.1	2.0	2.0	2.0	2.0	2.0	2.0
HI	1.0	0.7	0.7	0.7	0.7	0.8	0.9	0.7	0.5	0.5	0.5	0.5	0.5	0.5	2.2	2.2	2.3	2.4	2.2	2.3	2.2
IA	0.3	0.3	0.5	0.5	0.6	0.6	0.7	0.4	0.4	0.5	0.5	0.5	0.5	0.5	1.6	1.8	1.8	1.8	1.8	1.8	1.8
ID	0.3	0.4	0.7	0.7	0.8	1.1	0.9	0.5	0.7	1.0	0.7	0.8	0.9	0.7	1.8	2.4	2.6	2.5	2.6	2.6	2.4
IL	0.4	0.4	0.6	0.6	0.7	0.8	0.8	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.8	1.8	1.8	1.8	1.7	1.8	1.7
IN	0.3	0.3	0.5	0.5	0.6	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.9	0.8	2.0	2.0	1.8	1.8	1.8	1.8	1.7
KS	0.3	0.4	0.5	0.5	0.6	0.7	0.7	0.5	0.6	0.6	0.6	0.6	0.6	0.6	1.9	1.9	1.9	1.9	2.0	2.0	1.9
KY	0.4	0.4	0.6	0.6	0.7	0.8	0.9	0.6	0.8	0.8	0.9	0.8	0.9	0.9	2.3	2.5	2.3	2.3	2.3	2.4	2.3
LA	0.4	0.3	0.6	0.5	0.5	0.6	0.6	0.9	0.9	1.0	0.9	0.9	0.9	0.9	2.0	2.1	1.7	1.6	2.0	1.9	2.0
MA	0.4	0.4	0.5	0.6	0.7	0.8	0.8	0.5	0.5	0.6	0.6	0.6	0.6	0.6	2.0	2.0	2.1	2.1	2.2	2.2	2.2
MD	0.4	0.3	0.4	0.5	0.6	0.6	0.7	0.5	0.5	0.6	0.5	0.5	0.5	0.6	2.1	2.1	2.1	2.1	2.1	2.1	2.2
ME	0.4	0.4	0.6	0.6	0.8	0.9	1.0	0.5	0.6	0.4	0.5	0.5	0.5	0.5	2.5	2.6	2.6	2.7	2.8	2.8	2.9
MI	0.3	0.3	0.4	0.4	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	2.3	2.2	2.2	2.2	2.2	2.3	2.2
MN	0.3	0.3	0.4	0.4	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	1.8	1.9	1.9	1.9	1.9	2.0	1.9
MO	0.4	0.5	0.6	0.6	0.6	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.7	0.8	2.3	2.3	2.2	2.2	2.2	2.2	2.2
MS	0.2	0.2	0.4	0.6	0.7	0.9	1.0	0.7	0.8	0.9	1.0	0.9	0.9	1.0	1.9	1.9	2.1	2.1	2.1	2.2	2.2
MT	0.5	0.5	0.6	0.6	0.8	1.0	0.8	0.5	0.6	0.5	0.6	0.6	0.6	0.6	2.2	2.2	2.2	2.2	2.3	2.2	2.3
NC	0.4	0.4	0.6	0.5	0.6	0.6	0.7	0.7	0.8	0.7	0.7	0.7	0.7	0.8	2.3	2.4	2.3	2.3	2.3	2.3	2.2
ND	0.3	0.4	0.5	0.7	0.6	0.7	0.7	0.5	0.5	0.6	0.6	0.6	0.6	0.6	2.1	2.0	2.3	2.2	2.3	2.3	2.3
NE	0.3	0.3	0.5	0.5	0.6	0.6	0.6	0.5	0.6	0.6	0.6	0.6	0.6	0.6	1.7	1.9	1.8	1.8	1.9	1.9	1.9
NH	0.6	0.5	0.8	0.7	0.8	0.8	0.9	0.7	0.5	0.5	0.5	0.5	0.5	0.5	2.2	2.1	2.3	2.3	2.1	2.3	2.2
NJ	0.5	0.5	0.6	0.6	0.6	0.7	0.9	0.5	0.5	0.5	0.5	0.5	0.5	0.6	2.0	2.0	2.1	2.1	2.1	2.1	2.2
NM	0.4	0.3	0.7	0.5	0.6	0.9	0.8	0.7	0.6	0.7	0.6	0.5	0.5	0.5	2.1	2.0	2.1	2.1	2.2	2.1	2.2
NV	0.6	0.6	1.3	0.9	1.2	1.7	1.3	0.8	0.9	1.2	0.9	0.8	1.1	0.6	1.7	2.1	2.3	1.9	2.1	2.2	1.9
NY	0.5	0.4	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	2.1	2.0	2.0	2.0	2.0	2.0	2.0
OH	0.4	0.5	0.6	0.6	0.7	0.8	0.8	0.7	0.8	0.8	0.8	0.8	0.8	0.8	2.1	2.1	2.1	2.1	2.1	2.1	2.1
OK	0.3	0.3	0.4	0.3	0.4	0.5	0.6	0.7	0.7	0.7	0.7	0.8	0.8	0.8	1.8	1.9	1.9	1.9	2.1	2.1	2.0
OR	0.4	0.5	0.7	0.6	0.7	0.8	0.7	0.4	0.4	0.4	0.4	0.4	0.4	0.4	2.0	2.3	2.3	2.2	2.3	2.3	2.3
PA	0.4	0.5	0.8	0.8	0.8	1.0	1.1	0.5	0.7	0.7	0.7	0.7	0.7	0.8	1.7	2.1	2.2	2.1	2.1	2.1	2.1
RI	0.5	0.5	0.5	0.5	0.6	0.7	0.7	0.4	0.4	0.3	0.3	0.3	0.3	0.3	1.9	1.9	2.0	2.0	2.0	2.1	2.0
SC	0.3	0.4	0.5	0.5	0.6	0.7	0.7	0.8	0.8	0.9	0.9	0.9	0.9	0.8	2.2	2.3	2.3	2.2	2.2	2.3	2.1
SD	0.4	0.4	0.6	0.6	0.6	0.7	0.7	0.4	0.3	0.3	0.3	0.3	0.3	0.3	1.9	1.8	1.9	1.9	2.0	2.0	2.0
TN	0.2	0.2	0.5	0.5	0.5	0.6	0.6	0.6	0.7	0.8	0.8	0.8	0.8	0.8	1.8	1.8	1.9	1.9	1.9	2.0	1.9
TX	0.3	0.4	0.6	0.7	0.8	0.8	0.8	0.9	1.0	1.0	0.9	0.9	0.9	0.9	1.9	2.0	2.1	2.0	2.1	2.1	2.1
UT	0.7	0.8	0.9	0.8	0.7	1.0	1.0	0.7	0.8	0.8	0.8	0.8	0.8	0.8	2.1	2.3	2.2	2.1	2.0	2.1	2.3
VA	0.3	0.3	0.4	0.4	0.5	0.6	0.6	0.6	0.7	0.7	0.7	0.7	0.8	0.8	1.7	2.0	2.0	2.0	1.9	2.0	1.8
VT	0.4	0.4	0.5	0.4	0.5	0.6	0.6	0.6	0.7	0.8	0.8	0.8	0.8	0.7	1.9	2.1	1.9	1.9	2.1	2.1	2.3
WA	0.6	0.6	0.7	0.7	0.8	0.9	0.9	0.6	0.5	0.6	0.6	0.5	0.6	0.6	2.1	2.3	2.2	2.3	2.3	2.4	2.4
WI	0.4	0.4	0.6	0.6	0.6	0.7	0.7	0.4	0.4	0.4	0.4	0.4	0.4	0.4	2.0	2.1	2.1	2.1	2.1	2.2	2.1
WV	0.5	0.3	0.4	0.6	0.6	0.6	1.0	0.9	0.7	0.8	0.9	0.8	0.9	0.8	2.2	2.0	2.3	2.3	2.1	2.1	2.2
WY	0.6	0.6	0.7	0.7	0.8	1.0	1.0	0.6	0.7	0.6	0.6	0.6	0.6	0.6	2.0	2.1	2.1	2.1	2.1	2.1	2.1
US	0.4	0.4	0.6	0.6	0.6	0.7	0.8	0.6	0.7	0.7	0.7	0.7	0.7	0.7	2.0	2.1	2.1	2.0	2.1	2.1	2.1
Facilities	13573	13368	14108	14083	14448	14462	14202	13526	13345	14136	14118	14487	14507	14237	13528	13313	14100	14087	14482	14477	14206

WRITTEN TESTIMONY OF THE

AMERICAN NURSES ASSOCIATION

TO THE

SENATE SPECIAL COMMITTEE ON AGING

ON

IMPROVING OVERSIGHT AND QUALITY OF NURSING HOME CARE

AUGUST 10, 2000

AMERICAN NURSES ASSOCIATION
600 Maryland Avenue, SW, Suite 100 West, Washington, D.C. 20024-2571, (202) 651-7000

As the voice for professional nursing, American Nurses Association (ANA) is critically concerned with issues related to patient safety and quality of nursing care, and in particular that care which is provided to individuals with ongoing and unremitting care needs. ANA is pleased to have the opportunity to provide testimony related to staffing and quality of care in nursing homes.

ANA believes that now is the time to strengthen federal protections for a highly vulnerable population. In the near future, the elderly population in the United States will expand greatly. As "baby boomers" age, there will be an increased need for long term care. It is predicted that almost half of all individuals who reach age sixty-five will require nursing home care at some point in their later years. The number of individuals living beyond age eighty-five is rapidly growing, as are their needs for nursing home care. Additionally, the resident population of nursing homes has changed. Today, nursing homes provide care for not only the elderly, but also provide care for chronically ill patients with complex skilled nursing care needs, such as ventilator dependent patients, HIV-AIDS patients and neurologically-impaired patients.

The 1996 Institute of Medicine (IOM) study *Nursing Staffing in Hospitals and Nursing Homes: Is it Adequate?*, recognized this change in the nursing home population. The IOM recommendation that registered professional nurses be on duty and available to meet the needs of nursing home residents twenty-four hours a day, rather than the current requirement of eight hours, is well grounded in scientific outcomes literature. This level of care has been a long sought after goal of the nursing profession on behalf of patients in these settings.

Registered professional nurses assisted by licenced practical nurses and appropriately trained and certified nursing assistants are the vanguard of providing quality nursing care to residents in nursing homes. Residents are in nursing homes to receive nursing care. Nurses know how to meet the critical needs of this vulnerable population. ANA strongly supports the establishment and use of upwardly adjustable, minimal nurse-to-patient staffing levels based on nursing assessment of patients' acuity. ANA also supports the need to maintain adequate training for certified nursing assistants who, due to the documented lack of registered professional nurse or licensed practical/vocational nurse staffing, are frequently left to provided resident care with minimal supervision.

The report of the Health Care Financing Administration (HCFA) examining the analytical justification for establishing minimum staffing ratios for nursing homes further validate earlier studies that demonstrate a definite link between nurse staffing levels and nursing home outcomes. Earlier studies have shown that inadequate staffing is associated with higher rates of urinary infections and pressure sores and that understaffing and inadequate employee training are major contributors to malnutrition, dehydration and hospitalization of residents.

As the HCFA research initiatives continue, there are specific steps that should be taken now to address problems associated with nurse staffing in nursing homes. First and foremost, existing staffing requirements are not being enforced. Nursing homes must be held accountable for meeting staffing requirements. National minimum nurse-resident staffing requirements should be established, and Medicare reimbursement should be tied to demonstrated compliance with those requirements. Quality indicators in conjunction with the use of minimum data sets that

facilities maintain per resident, should be used to furnish continuous data to assess quality of care. ANA also recognizes that the stress and low pay of nursing home employees combined with attempts to controls costs through reduced or inadequate or inappropriately trained staffing compounds quality of care problems in nursing homes. ma including the lack of adequate and appropriate funding for long term care, lack of national minimum staffing requirements, and the stress and low pay of nursing home employees.

We appreciate the opportunity to comment on this issue and look forward to working with members of the committee in developing appropriate responses to these problems.

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August 9, 2000

The Honorable Senator Charles Grassley, Chair
Senate Special Committee on Aging
G31 Dirkson Senate Office Bldg.
Washington, DC 20510

Dear Senator Grassley:

We are writing to submit comments regarding the hearing on July 27, 2000 on Nursing Home Staffing and the HCFA Report to Congress on the Appropriateness of Minimum Nursing Staffing Ratios. We urge the Senate to take action to establish federal minimum staffing levels for all nursing facilities, to assure that reimbursement rates are sufficient to cover the recommended staffing, and to ensure that nursing facilities are accountable for using federal money to provide adequate staffing for all residents.

We were impressed with the extensive amount of work presented in the HCFA report and the high quality of the special studies that provide powerful and compelling evidence of the need for minimum staffing levels. We concur with the HCFA findings that the survey and certification program is not adequately monitoring the existing HCFA staffing standards and the accuracy of the staffing data submitted by facilities. These findings are consistent with those from our own research and the findings from other scientific studies.

We do, however, have concerns about a few areas within the report. First, the executive summary is poorly written and somewhat misleading in its presentation. The summary presents minimum staffing levels below which quality of care may be seriously impaired (2.0 hours per resident day of aide time and 0.75 hours of RN and LPN time), but fails to point out that these are direct care hours and exclude the RN Director of Nursing.

Second, the total 2.75 hours per resident day in the HCFA Minimum Staffing Level are simply too low to ensure adequate nursing care. Although we agree that the HCFA Preferred Minimum Level of staffing (2.0 hours per resident day of aide time and 1 hour per resident day of RN and LPN time or 3.0 total hours per resident day) would improve the quality of nursing facility care across the board, even this level is too low to be a reasonable minimum standard.

Since the average staff hours per resident day in the U.S. (excluding Directors of Nursing) was reported by HCFA to be 3.23 hours per resident day in 1999, the minimum standard should not be set at a rate lower than the national average. The HCFA Preferred Staffing Level would allow half of the facilities in the US to have lower staffing than facilities currently provide.

The HCFA report presented a simulation model by Professor Schnelle that showed that minimum should be 2.9 nursing aide hours. These findings are identical to the recommended hours in our expert opinion paper on what nurse staffing standards should be (2.93 aide hours) published in a peer-reviewed journal The Gerontologist (February 2000). If the 2.9 nursing aide hours were added to the 1 hour of RN and LVN time in the HCFA Preferred minimum level, the total direct care hours would be 3.9 hours, which is similar to our recommended minimum standard of 4.12 total direct hours of nursing care. We urge the Senate to ensure that a minimum of 3.9 to 4.13 direct nursing care hours per resident day are provided.

We want to correct the erroneous statements made in the HCFA report that previous research studies do not show a strong and consistent relationship between nurse staffing levels and the quality of nursing facility care. That is simply not true. The 1996 Institute of Medicine's report on Nursing Staff in Hospitals and Nursing: Is it Adequate? and other papers have reviewed the research literature and concluded that there is a strong and consistent relationship, especially between RN staffing and nursing home outcomes. Based on the research, the Institute of Medicine's 1996 report recommended that Congress require all nursing homes to provide a minimum of 24 hours of RN care per day and encouraged additional staffing to meet resident needs. Our expert opinion paper in The Gerontologist (February 2000), which resulted from the Hartford Institute on Geriatric Nursing conference on staffing, recommended minimum staffing standards based on the strength of the existing research and HCFA's OSCAR and time study data.

As authors of the expert opinion paper, we appreciate the continued interest of you and your staff in this matter, which is so vital to the care and safety of our older Americans. If you would like additional information, please do not hesitate to call Charlene Harrington at 415-476-4030.

Sincerely,

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August 10, 2000

Senator Charles Grassley
Chairman, Senate Special Committee on Aging
G-13 Senate Dirksen Office Building
Washington, DC

Dear Senator Grassley,

The Paraprofessional Healthcare Institute (PHI) applauds your leadership in facilitating the completion of Phase I of this important study by the Health Care Financing Administration of the connection between staffing levels and resident quality of care in nursing homes. We appreciate the speed with which you conducted hearings immediately following release of the study and your solicitation of a wide range of responses to the study.

We believe that HCFA Administrator Nancy Ann Min de Parle and her team of staff and study consultants deserve praise for completing the first Phase I of this multifaceted, comprehensive study. They have helped to document what was always known as a logical and intuitive connection between staffing levels and quality of care. Through careful study design and data collection they emerged with results that not only validate an astonishing low rate of staffing in the majority of our nursing homes, but also make strong connections between these low staffing rates and poor resident outcomes.

As the Committee guides HCFA in designing Phase II of the study, we offer the following comments and suggestions. The Paraprofessional Healthcare Institute (PHI) is a nonprofit organization that focuses exclusively on the recruitment, training and employment of direct care workers —primarily within the long-term care industry. PHI is also a founding member of the Direct Care Alliance, a national practitioner-based coalition of long-term care consumers, direct-care workers, and concerned health care providers dedicated to achieving a stable, valued, and well-trained direct care workforce.

[redacted]

Our comments address the following concerns:

- Appropriateness of minimum staffing levels
- Identification of other staffing indicators affecting care quality
- Mandating a link between reimbursement rates and staffing indicators
- Recommendations for Phase II
- Immediate Next Steps

Appropriateness of Minimum Staffing Levels

As one of the stakeholder groups that the HCFA study team consulted in the design of Phase I, PHI continues to believe that to meet the language and spirit of the Nursing Home Reform Law of 1987 for residents to achieve the highest practicable level of functioning, the study should identify staffing levels that lead to good care, not minimally acceptable care standards. Therefore, as Phase II expands its sample size to include more nursing homes in more states, it should focus on identifying staffing levels that deliver optimum care and estimate costs associated with those levels.

PHI believes that optimum care can only be accomplished through the staffing levels advocated by the National Citizens Coalition for Nursing Home Reform. These staffing – resident ratios of 1:5 during the day, 1:10 during evenings, and 1:15 during nights, with additional assistance at mealtimes translate into at least 4.13 hours of direct care a day per resident.

Identification of Other Staffing Indicators Affecting Care Quality

The Phase I study has shown with strong evidence that quality of care is linked to staffing levels. However, other indicators directly related to job quality of direct care staff also have a strong relation to care quality. The NCCNHR 1985 study of nursing home residents showed that the relationships residents have with the CNA staff is critically important to their quality of life in the nursing home. Having staff who stay, have a history in the facility and know the residents is essential to good quality care. We know from a variety of studies what indicators are likely to keep staff at a nursing home. These include, in addition to reasonable workloads, decent pay and benefits, good supervision, adequate training, advancement opportunities and having time to talk with residents.

We are encouraged that in Phase II HCFA will be looking at several of these indicators including turnover rates, staff training, and management of staff resources. A vast majority of nursing homes have turnover rates that approach or exceed 100%, pay low wages, do not offer health insurance, require only minimal

initial training, deliver poor quality on-going training, and have supervisors who are not trained in supervision.

Some nursing homes have overcome these problems. They should be studied as important case examples of re-structured facilities leading to positive outcomes for residents. Additionally, researchers in Phase II should collect data describing wages; the availability and cost to workers of health and other benefits; the extent of initial and on-going training; the preparation of the trainers and supervisors; the amount of turnover among CNAs, LPNs and RNs; and opportunities for career advancement.

Mandating a Link Between Reimbursement Rates and Staffing Indicators

As the Senate Special Committee on Aging begins to move from the research delivered from HCFA to the development of policy, PHI believes emphatically that nursing homes must be required to show how they spend the Medicare and Medicaid funds they receive for staffing. The administration must take steps to assure that the Medicare SNF reimbursement system ensures that public funding is spent on direct care for residents. Although such a mandate would be counterintuitive to a flat-rate prospective payment system, we must find a way to make nursing homes accountable for the funds they receive. This is especially true if the Congress authorizes additional funds to compensate for the cutbacks from the Balanced Budget Act of 1997. These additional funds must be tied to increases in staffing levels and better working conditions for existing frontline staff.

Notification of staffing levels and other indicators of working conditions.

Quality of care is not only related to staffing levels. Other facets of job quality, in addition to workload levels, are linked to the quality of care that staff provide. For HCFA and consumers to evaluate the job quality offered by different providers, each provider should be required to report to HCFA and make publicly available a set of indicators describing the working conditions for their frontline staff. In addition to wages, nursing homes should be required to post at least the following:

- Number of staff on duty on each shift so residents, families and surveyors can see them.
- Average wages for CNAs, LPNs and RNs.
- Description of the array of employer-paid benefits available to CNAs.
- Turnover rates – with a nationally accepted definition, or formula, for calculating turnover.
- Notification of the hours of initial and ongoing training required for CNAs.

- Notification of supervisory ratios: how many CNAs per LPN or RN supervisor.
- Availability of career advancement opportunities.

Workforce Analysis

The Executive Summary of the HCFA study indicates that in Phase II, the study team will conduct not only a cost analysis of the several staffing level standards created in Phase I, but also undertake a workforce analysis. We think this is an essential study component and encourage the Committee and HCFA to solicit input from others who have studied the unique aspects of the low-wage workforce in health care. If the health care labor market were functioning "perfectly," direct-care vacancies would not continue for long— the supply of workers would expand to meet demand as employers improved their "price" (wages, benefits and working conditions) to attract and retain more workers. Yet several factors prevent our long-term care system from achieving rapid labor-market "equilibrium," including: 1) continually expanding pressures on the demand for health care services, 2) limitations on the supply of additional workers, and 3) restrictions on the ability and/or willingness of employers to increase their labor "price."

As the Committee develops policy recommendations from Phases I and II of the HCFA study, we believe they need to study the "labor impact" of HCFA's health care policies and consider how direct care workers are, in many ways, only one step removed from being public sector employees. In addition, they should consider how public policies and regulations—as implemented by the Department of Labor, the Department of Education, the Immigration and Naturalization Services, and the Department of Health and Human Services (welfare programs)—impact the work and home lives of current and potential direct-care staff.

In particular, paying "realistic wage levels" is an essential way for the industry to stop this hemorrhaging of licensed and direct care staff. "Realistic wage levels" must be an integral component of the cost and workforce analyses.

Further Accountability

The study's documentation of significant differences in staffing levels between nonprofit and for profit nursing homes suggests another approach to facility accountability to their primary payer, the federal and state governments. We recommend that the Committee look to solutions that are beyond the long-standing dichotomy of nonprofit and for profit. By mandating that facility boards of director include representatives of consumers and workers as fully active board members, facilities would open another window to the public concerning

their resource use. This could also become either an incentive from HCFA for additional funds to providers, or another required indicator for facilities to receive public financing.

Immediate Next Steps

Phase II of HCFA's study will take at least another year of work. Nursing home residents are suffering now from avoidable hospitalizations, malnutrition, dehydration and other ramifications of inadequate staffing. We encourage the Committee to recommend responsible legislation to assist nursing homes in recruiting and retaining adequate staff. To that end, we would encourage Congress to return some of the Medicare funds cut from nursing homes by the Balanced Budget Act of 1997. However, these funds must be tied directly to staffing.

Finally, we also strongly urge you to make every possible effort to denounce the "Single Task Worker Bill" currently being considered. This approach would lower significantly the standard of care delivered to nursing home residents. Although at first blush it appears to offer solutions to the staffing shortage, it would only bring more poorly trained and poorly paid workers into nursing homes. This goes against all that we know about workers who stay: they are paid well, and are given benefits, good training, and good supervision.

In conclusion, PHI would be honored to assist you and the Senate Special Committee on Aging in any way it its important work of identifying ways to recruit, support and retain sufficient numbers of high quality staff in our nation's nursing homes.

Sincerely,

Steven L. Dawson

Steven L. Dawson
President

National Committee to
Preserve Social Security
and Medicare

Comments and Questions by

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The National Committee to
Preserve Social Security
And Medicare

Submitted to

Senate Special Committee on Aging Record on Hearing of July 27, 2000

Regarding

Health Care Financing Administration (HCFA) Draft Report on Phase I of the OBRA '90 mandated study of "Appropriateness of Nursing Home Minimum Staffing Ratios"

August 10, 2000

10 G Street, NE, Suite 600 • Washington, DC 20002-4215 • 202 216-0420 • www.ncpssm.org

The National Committee to Preserve Social Security and Medicare greatly appreciates Senator Grassley's interest in the quality of care in U. S. nursing homes, and thanks him for the July 27, 2000 Senate Special Committee on Aging hearing of testimony by Administrator DeParle and HCFA contract researchers Kramer and Schnelle. We appreciate the opportunity to review and comment on the HCFA Draft Report on Phase I of the OBRA'90 mandated study on nursing home staffing minimums. (We have not reviewed chapter 13, which was not included in the draft we received.

In 1989, the National Committee requested a study of what the minimum nursing services staffing should be in nursing homes and was gratified that a study was mandated by Congress on October 26, 1990. We have followed its course since then, to the degree the Department of Health and Human Services (DHHS) has disclosed its actions on this mandate. No action was apparent for two years, and we urged the Secretary to contract with the Institute of Medicine to do the study. Eventually the Secretary authorized the HCFA Office of Research and Demonstrations to do the study. Martha Mohler MN, MHSA represented the National Committee on an advisory panel for the study. At some point the study was suspended without a public report. It was reactivated in 1997 or 1998.

Purpose of the Study

From the beginning, the National Committee voiced concern about the interpretation HCFA gave to the mandate. An unprecedented statistical analysis was planned to identify the relationship of staffing to resident "outcomes." With this, HCFA has been attempting to identify a level of staffing below which residents suffer increased adverse effects. By contrast, the National Committee and other resident advocacy groups had anticipated DHHS would convene nursing experts to identify a minimum staffing standard or methodology of staffing to enable delivery of basic supportive and/or restorative care while conforming to requirements of law and professional standards of nursing practice. We believed this was the intent of the Senate Special Committee on Aging Chairman, who introduced the proposal. We believe this is still needed, and recommend that Part II of the study incorporate this goal.

Useful Findings and Conclusions:

HCFA's research concludes that there is widespread harmful understaffing of nursing services in U. S. certified nursing homes. This has been noted in Congressional reports and studies for over thirty years. HCFA's research also finds that staffing information submitted by facilities to surveyors is not reliable, and that surveyors are not currently expected to verify this information.

Taken together, these findings indicate that the inspection and enforcement system lacks the tools and process to protect residents. Without a reference standard the surveyors rarely cite insufficient staffing in complaint investigations or routine

inspections. Instead, they must search for evidence of "outcomes" in records that may be incomplete or inaccurate (particularly in understaffed situations) and in interviews with residents and staff who may feel vulnerable to retaliation.

It is interesting to know that correlation was found between nursing home staffing and some diagnoses on hospital admissions from nursing homes, as well as with improvements in several measures of long-term nursing home residents' status.

Limitations of the Study and Questions to be Addressed:

The interviews conducted by Abt Associates apparently did not include direct care licensed nurses. This omission should be rectified to get an appreciation of the significant workloads these nurses carry.

The responsibilities of licensed practical and registered nurses still need to be addressed, and so does the wide range of services provided by direct care nursing staff. Also, important requirements of federal law, and basic considerations of good nursing practice should be taken into account.

Both Dr. Kramer's and Dr. Schnelle's research address very narrow scopes of nursing service and of potential quality problems. Consequently, their conclusions about needed staffing are too minimal.

How will HCFA account for the time required for the range of services provided by direct caregivers that are not being addressed in the Kramer and Schnelle studies?

Washing hands between residents and observing other infection control precautions,
Answering residents' calls for assistance,
Adjusting care to residents' preferences,
Evaluating and responding to signs of pain, anxiety, grief, change of mood,
Communicating with residents: persuading and encouraging residents,
Monitoring residents who are totally dependent, restrained or exhibiting signs of emotional or physical distress,
Reporting and recording observations promptly,
Using equipment safely (e.g., lifting devices, whirlpools, scales, thermometers),
Emptying urinary drainage, recording intake and output,
Assisting other members of the nursing team – e.g., with lifting, transferring),

How will HCFA account for the range of services provided by direct care licensed nurses that are not as yet not addressed in the Kramer and Schnelle studies? These include:

Required resident assessments (for Medicaid: admission, quarterly and with change of status; For Medicare, on days 5, 14, 30, 60, 90 and with change of status),
Care plan coordination consistent with findings of each assessment,
Timely administration of treatments, medications (routine and "as needed")and procedures (e.g.., suctioning, ostomy care, dressing changes, tube feeding),
Adjusting direct caregiver care assignments, and providing supportive supervision,
Evaluating resident health status, and responses to care,
Documenting care given and changes of health status,
Coordinating with other services and departments,
Communicating with physicians and families or designated representatives,
Transcribing and implementing orders,
Accounting for narcotics and emergency equipment,
Ordering medicines and supplies,
Reporting to nurses at change of shift.

How will HCFA account for nursing administration responsibilities– Director of Nursing, Assistant Director of Nursing, Staff Development Coordinator, RN supervisors of direct care? These include:

Recruiting, screening, selecting, hiring, orientating, evaluating staff,
Maintaining documentation of health status and qualifications of staff,
Delegating and assigning nursing management responsibilities,
- Assuring adequacy of direct care staff scheduling.
- Replacing staff who do not come to work as scheduled
- Scheduling duty hours of charge nurses and supervisors

Conducting quality assurance program,
Reviewing and implementing Infection Control program,
Participating in utilization review program for Medicare, Medicaid, other health insurance,
Fire, Safety and Emergency response training,
Reviewing and revising nursing policies and procedures,
In-service education for staff at all levels in clinical care,
Nurse Aide training and certification.

Staffing Levels for Established Staffing Methodologies Should Be Examined.

HCFA has too quickly dismissed established staffing systems in its commitment to finding a new method through statistical analysis of "outcomes." Reliance on "outcomes" data from Minimum Data Set assessments done by rushed nurses in understaffed facilities can be risky. Even if the data were perfect (doubtful) there are very many variables that can affect "outcomes." Adjusting for them all is extremely difficult, but only adjusting for some can lead to faulty conclusions. For example, Dr. Kramer does not include pain, discomfort, anxiety,

depression as confounding factors that can affect ADL improvement or resistance to help with ADLs.

At the very least, nursing experts should have the last word on the clinical appropriateness of proposed staffing recommendations. It is doubtful that nurse experts would consider it a "best practice" to change and reposition an incontinent helpless resident only 7 times in 24 hours (ignoring the AHCPR pressure ulcer Guidelines).

Staffing minimums should distribute staff appropriately for good care at all hours.
They should be substantial in order to protect residents from providers who would only staff to the minimum. Adjustment above the minimum should be require, to fit the needs of a given resident population, the experience of its staff, and the geography of the facility – i.e., there must be room for the nurse in charge to make adjustments to fit the situation of the day.

The U. S. Army's chief expert on nurse staffing, Lt. Col. Richard Harper wrote HCFA that it would take about 18 months to develop an objective system for long-term care staffing, given the Army's Workload Management System for Nursing's broad foundation of research and many years of data. This would be a worthwhile investment and should have substantial credibility with the public.

Mr. William Thoms, a nursing home administrator for 23 years, designed the Management Minutes resident classification and staffing system to meet all legal requirements, and expert nurse advice. It was validated with 700 records from one home and then subjected to challenge by a panel of nurse experts from across the country. Over many years it has been used as basis of Medicaid payment by West Virginia and Massachusetts and used as staffing methodology for the Hillhaven Corporation and National Health Corporation. With adjustments to incorporate new requirements it should work well now. Mr. Thoms says the HCFA Draft report does not accurately represent the information he provided.

The staffing configuration endorsed by the John A. Hartford Institute for Geriatric Institute at New York University School of Nursing has also been given short shrift by HCFA. It should be noted in the report that this proposal was based on meeting all legal requirements as well as standards of good nursing practice. It was initiated at the Senate Special Committee on Aging under Chairman John Heinz, and subsequently developed by input from long-term care experts for over ten years. The meeting in New York included five of the original participants. Pending identification of a better standard, The National Committee has endorsed this staffing pattern, along with the National Citizens Coalition for Nursing Home Reform, SEIU and others.

National Committee to
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The National Committee to
Preserve Social Security
and Medicare

Additional Comments for the
Hearing Record of the
Senate Special Committee on Aging

Regarding

Phase One of the HCFA Study of Appropriateness
Of Minimum Nurse Staffing Ratios in Nursing Homes

September 6, 2000

10 G Street, NE, Suite 600 • Washington, DC 20002-4215 • 202 216-0420 • www.ncpssm.org

The National Committee appreciates extension of the comment period for the July 27, 2000 hearing entitled, Nursing Home Residents: Short-changed by Staff Shortages, Part I.

We would like to make two corrections to our comments and questions submission of August 10:

1. Our initial comments misidentified which chapter was missing from our copy of the study. It was actually chapter 11 that was missing from the draft we received. We have now received and reviewed Chapter 11.

2. Our initial comments mentioned the use by states and corporations of William Thoms' Management Minutes method of calculating staffing needs. One of the corporations mentioned was National Health Corporation. The correct name is National Healthcare Corporation.

Additional Comments on the Study

On further review of the study, the National Committee has several supplemental comments it would like to submit.

We are very concerned that the study does not adequately address the OBRA 90 congressional mandate that the study include recommendations regarding appropriate minimum ratios of caregivers to residents and of supervisors to caregivers in nursing facilities.

First, The study fails to consider the importance of licensed nurses as caregivers, by focusing almost entirely on nurse aides as caregivers. Residents' care needs are complex and dynamic. Observation, judgment and direct care skills of licensed and professional nurses are needed in many instances. Staffing recommendations for direct caregiver staffing must, therefore, not be limited to nurse aides.

Second, supervision is not adequately addressed. The study appears to disregard the fact that the Registered Nurse (RN) is legally accountable for the provision of nursing care and the quality of that care. This accountability is the public's protection when RNs delegate tasks and responsibilities to licensed practical/vocational nurses (LPN/LVN) and nurse aides (NA). RNs must make reasonable assignments and provide for mentoring of staff as well as direct supervision and evaluation of care. If RNs delegate aspects of these responsibilities they still retain legal accountability. Therefore, RN staffing must be adequate to permit real involvement in the oversight of care.

Third, the study appears to incorporate several questionable assumptions by focusing on finding the level of nurse aide staffing below which residents are subject to increased incidence of avoidable adverse outcomes. We do not accept the following assumptions implicit in the study:

* That there is some level of avoidable adverse outcomes that is acceptable. (Good nursing care is designed to prevent avoidable adverse outcomes.)
* That appropriate staffing for good care can be found within existing staffing averages. This is a concern especially in the area of RN staffing. (Existing staffing levels and staffing conventions in the nursing homes have neglected good standards and resulted in harmful lack of care.)
* That staffing for effective, safe care can be measured by nurse aide staffing levels, regardless of their levels of training, experience and certification and independent of licensed and professional nurse staffing. (Nurse aide staffing must be in the context of adequate licensed nurse supervision.)

Fourth, the study appears to make preliminary recommendations of cumulative staff time per resident day. This is not an adequate measure of appropriate staffing, without reference to the distribution of staff time throughout the day in proportion to the number of residents being served, and the skills present during each part of the 24 hour day.

Fifth, the study dismisses the value of prior studies and known staffing methodologies in favor of an academic, statistical analysis. While useful in confirming a relationship between low staffing and incidence of harmful outcomes, it is limited in its capacity to identify the large question of appropriate staffing for preventive good care. Acknowledging many confounding factors, different parts of the study address only a few parameters and outcomes of care - a far too narrow approach for addressing the broad question of comprehensive nursing services staffing needed for good care.

Difficulties in the attempted statistical analysis are apparent, not only in the variety of confounding factors for indices of quality, but also in limitations of available data. Parts of the study seek to identify thresholds in existing staffing, below which residents suffer more adverse outcomes. While assuming MDS assessment data may be incorrect for resident weights (p. 11-2), the study relies on MDS data elsewhere in the study without auditing the MDS data. While noting that HCFA's OSCAR file data and Medicaid cost report data are unreliable for nurse aide staffing, these are used in staffing analysis.

A part of the study attempts to find levels of nurse aide staffing needed for performing certain tasks at certain frequencies, but does not attempt to look at the full scope of the nursing services or to quantify the levels of staff training and responsibility needed for consistent delivery of good care. We gave examples of the range of nursing services not addressed in our August 10 submission.

These academic studies may produce valuable information over time, when improved staffing and governmental oversight results in better data. However, they can not be solely relied on to address an immediate need for staffing requirements realistic for good care.

For publication of Phase I, an index would be a great help in reading this report, because of the many aspects of the study and numerous references to the same subjects in different places. Some clarification of Appendices B also would be helpful (see footnote).

Conclusion:

Phase II of the study needs to address the nursing services staffing needed for good care. More than $80 billion is spent annually on nursing home care. Consumers want assurance that the payment buys good care. To this end, consumers want a staffing requirement that they and inspectors can audit and that permits the delivery of safe, supportive nursing care that meets professional standards of care at all hours. A comprehensive staffing minimum must allow flexibility for nursing judgment. It must also incorporate nursing administration staffing standards and a methodology for adjusting staffing to reflect variations in resident disability and care needs. The HCFA study does not yet do this.

We urge that the Secretary turn now to a panel of expert nurse managers and nurse clinicians who are knowledgeable of requirements of law and professional standards to examine existing methodologies as well as the findings of Part I of the study, and in light of their experience, to recommend minimum staffing requirements for all hours of the day. These experts should be people with no economic conflicts of interest or constraints in addressing the question. Phase II should be done without speculation about what the public can or will pay (we regret that this kind of speculation appears to be already affecting Phase I). The study should let Congress know what staffing is needed for good nursing care according to professional standards and conforming to the requirements of law. The public and its representatives can then address determinations of what can be afforded.

Footnotc: Tables in Appendices B need more detailed labeling or footnotes:
* Do government facilities refer to Federal, State or Local governments?
* Do RN times include administrative nurses?
* Do nurse aide times include aides in training or only certified aides?
* Do total nursing hours include administrative nurses?

OBRA 1990

(B) STUDY ON STAFFING REQUIREMENTS IN NURSING FACILITIES.—The Secretary shall conduct a study and report to Congress no later than January 1, 1992, on the appropriateness of establishing minimum caregiver to resident ratios and minimum supervisor to caregiver ratios for skilled nursing facilities serving as providers of services under title XVIII of the Social Security Act and nursing facilities receiving payments under a State plan under title XIX of the Social Security Act, and shall include in such study recommendations regarding appropriate minimum ratios.

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William Painter, Consultant
Long Term Care Public Policy and Client Quality of Life
174 Dusty Lane
Mims, FL 32754
ph. (407) 349-2272

August 31, 2000

The Honorable Charles E. Grassley, and Members
Senate Special Committee on Aging

Comments on Phase I HCFA Nursing Home Staffing Study:
The publication of the study on the Appropriateness of Minimum Staffing Ratios marks a milestone in our society's recognition and understanding of the path to quality of care and quality of life for people living in nursing homes. Objective validation of the common sense link between adequate staffing and quality care should serve to remove any pretense of doubt about the urgent need to address this issue in public policy, and to establish minimum standards for nursing homes receiving federal funds. Indeed, had the issue of staffing standards not been left hanging on what proved to be the meaningless word "sufficient", in OBRA '87, we would simply not have faced the quality problems we have seen in the years since.

Although the more detailed analysis planned in phase II of this study will help fill in the specifics, the handwriting is on the wall for policy-makers. Our elected representatives, on both the federal and state level are compelled make some honest decisions about our commitment to well-being of the elderly and disabled citizens of this nation who are living in nursing homes. The members of the United States Congress can lead the way by creating policies that set staffing standards, and direct resources towards an adequate, well-trained, reasonably compensated, stable, and professionalized front-line workforce for nursing homes. It is time we abandon the illusion that certified nursing assistants merely fill another entry-level, low-skill, service worker slot in the economic machine. It is time we finally bury that myth, a myth which has been perpetuated by policy decisions that made lowering costs the first priority, and by those in the provider community who see under-valuation of front-line workers as a strategy to enhance profit. We certainly must reject any suggestion that we attempt to fill the gaps in the nursing home workforce with a sub-set of minimally trained, part-time, single-task workers. Current high turn-over rates stretch back into time, well before the current economic boom, and the real solutions of better compensation and better management are what's needed, not a "dumbing-down" of standards.

I've spent 15 years working in long term care, and was a family caregiver before that. I *know* that a decent quality of life is possible for residents when facilities are adequately staffed. Likewise, I know first-hand that resident quality of life is impossible when they are not.

Staff is the lifeline for nursing home residents. Hands-on caregivers are the people who make it possible for the frail elderly and the disabled living in nursing homes to exercise their rights as Americans, and to enjoy the sense of dignity, choice, respect,

and the sense of belonging and being valued for simply being alive that we all deserve, regardless of our physical or cognitive limitations.

I believe we can and must continue to reach for the goals outlined in the Nursing Home Reform Act...to attain and/or maintain the highest practicable level of well-being. It is a moral imperative that we do so and a benchmark of our national character.

Sincerely.

William Painter

August 28, 2000

Maplewood Park Place
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The Honorable Senator Charles Grassley
Chairman, Senate Special Committee on Aging
Dirksen Senate Office Building, Room G-31
Washington, D.C. 20510

Dear Senator Grassley:

We are writing to you as health professionals (nurses and physicians) to express our concerns about the Health Care Financing Administration (HCFA) Draft Report on Phase I of the OBRA'90 study regarding nursing home staffing ratios. In this report HCFA found widespread harmful understaffing with an average of 3.23 hours of care per resident per day. It now recommends 2.75 hours as the standard. This standard is totally unacceptable. Funding must be made available to increase nurse-staffing levels to a higher standard, i.e. more staff time per resident and more professional (RN) nurse time to supervise care and instruct nursing aides.

After ten years of reviewing the literature, contracting for special studies and analyzing data, it seems inconceivable that HCFA did not make recommendations for staffing which would improve the care of our senior citizens in nursing homes. Leadership is expected from our national government in setting standards to elevate the care of our most fragile, dependent older citizens who have made important contributions to our nation. The HCFA report falls far short of such expectations.

The critical nature of nursing home staffing is accentuated by a number of demographic and health related problems. These include the increasing numbers of the over 85 population; early hospital discharge with acute medical and complex nursing needs; greater limitations in activities of daily living; and an increasing incidence of Alzheimer's disease and other dementias. Therefore, the average time needed to care for an elderly resident has increased considerably with little or no increase in staff. Thus, there has been a marked decrease in the quality of care provided, further emphasizing the need for more and better-trained nursing staff.

Quality of care means the degree to which the services provided increase the likelihood of residents achieving desired health outcomes consistent with current scientific findings, professional knowledge, and acceptable standards of care. In nursing, it implies competent nursing practice including broad assessments of health status and needs, determination of desirable outcomes and the provision of services to bring about these outcomes. Based on scientific principles, quality of care is characterized by patient/family participation in the care plan as well as collaboration with the physician and other members of the health team. It requires skill in teaching preventive procedures, providing treatments and restorative techniques. All must be managed with patience, sensitivity and compassion. As a leader of the health team, the nurse provides care appropriate to the presenting problem; instructs, delegates and supervises caregivers as well as other health staff involved, promotes a safe and therapeutic environment and systematically evaluates residents' progress in relation to desired outcomes.

The essential elements of nursing practice in nursing homes include, in addition to usual personal care, assistance in walking to maintain mobility, help in feeding, help with range of motion and other exercises to augment physical therapy (especially for stroke victims). Mental stimulation and recreational activities aimed at preventing depression all add to the quality of life of the resident.

Currently care is provided primarily by nursing aides who have very limited training. In fact, nationally nursing aides are only required to have a total of 75 hours of instruction (classroom and clinical). By comparison, a hairdresser in Maryland is now required to have 1600 hours of instruction before becoming licensed. To assure safe care aides must be supervised and given continuing education by professional nurses.

Because of multiple chronic diseases and changing health status, provision of quality care for geriatric populations is particularly challenging. It requires a professional nurse (RN) with training in geriatrics. A Task Force on the Quality of Care in Maryland Nursing Facilities determined in December 1999 that the minimum staffing standards for nursing home residents should be four hours per resident per 24 hours. This recommendation approximates the Hartford Institute of Geriatric Nursing Study which recommended 4.13 hours of direct nursing care staffing per resident per 24 hours not counting administrative staff time.

As health professionals who have been or are involved in the care of the elderly, we recommend that:

1. The standard be established at a minimum 4.0 hours of direct care per resident per 24 hours of which at least one hour would represent professional nurse time (not including nursing administration) and

2. The nursing service is directed by a well-prepared professional nurse (RN) with knowledge and experience in geriatrics that can assure that adequate direction, assessment and supervision are provided.

We would like to be informed about the design of Phase II of the HCFA nursing home staffing study and about how it responds to these concerns.

Respectfully submitted,

Dorothy Reese Bloomfield

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American Association of
Nurse Assessment Coordinators

Senator Charles Grassley, Chairman
Senate Special Committee on Aging
Senate Dirksen Office Building Room G-31
Washington DC 20510

August 30, 2000

Dear Senator Grassley:

I am the Executive Director of the American Association of Nurse Assessment Coordinators (AANAC). AANAC is a non-profit organization representing about 2000 Registered Nurse members working in nursing facilities throughout the United States. Our members provide direct care, assessment, care planning, and supervision for the residents of nursing facilities. We applaud your proposal to link increased funding for nursing facilities to increased staff levels. Increases in both licensed (Registered Nurses and Licensed Practical/Vocational Nurses) and non-licensed (Certified Nursing Assistants) are urgently needed in many facilities. A Federal mandate for minimum-staffing levels linked to the acuity and functional level of residents is needed. We strongly support further studies as needed to develop a system that will have these intended effects.

We are favorably impressed with your committee's exploration of the need for additional certified nursing assistants to provide direct personal services to residents. However, increases in non-licensed staff alone will not result in the desired improvements in resident welfare since by law the role of assessment and care planning are limited to Registered Nurses.

We suggest that an interim approach to allocating staffing requirements be based on the same Resource Utilization Group (RUG III) information used to determine nursing facility payment under the Medicare Part A Prospective Payment System. Any system of linking payment to staffing must account for the case mix (severity of illness and functional level) of residents. To do otherwise, will result in negative incentives to provide adequate care. The nursing minutes for Registered Nurses, Licensed Practical Nurses, and Nurses Aides used to calculate RUG III were determined by actual staff time measurement. Those observed minutes are the basis of the Medicare Part A Prospective Payment System. Subsequent staff time studies carried out by the States of Colorado and Indiana Medicaid programs continue to confirm the essential relationship between observed staff times and the RUG III classification of residents. Therefore, we believe that mandated minimal staffing levels should be linked to the same data by which payment is being made to facilities.

The staff times measured in good facilities during HCFA's staff time studies ranged from 140 minutes of Registered Nurse service per day for residents in RUG III group SE3

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(Extensive Care) to 28.2 minutes of Registered Nurse time per day for residents in RUG III group PA1 (Physical Assistance Only.) These times excluded nursing administration activities. The proposed 12 minutes per day of Registered Nurse time is clearly inadequate to meet the residents' needs for professional assessment, skilled care and direction of other caregivers.

We also note that the current volume of the HCFA Staffing Report does not deal with the issue of Registered Nurse staffing levels. This is a serious shortcoming that we trust will be addressed in the future. Nurse aides cannot provide the care needed by residents without the direction of Registered Nurses. Indeed, the data used by HCFA's report relies on "outcome measures" derived from the same MDSs for which sufficient Registered Nurse time is often not available. We also note that mandated minimum staffing is needed for both the Medicaid and Medicare programs.

Additional staff is needed to provide adequate care to our nursing facility residents. As part of the team providing the care to residents, AANAC members support mandated minimum staffing to care for residents. These levels should be tied to the minutes identified in the RUGs reimbursement system.

Thank you for your efforts on behalf of the Residents of all nursing facilities across the United States.

Sincerely,

Diane Carter, Executive Director
On behalf of the AANAC Board of Directors

NADONA/LTC

Communication
Education
Service

The National Association of Directors of Nursing Administration in Long Term Care

August 24, 2000

President
Robin K. Storey, RN, BSN, FACDONA

Executive Director
Joan Warden - Saunders, RNC, BSN, FACDONA

Senator Charles Grassley, Chairman
Senate Special Committee on Aging
Senate Dirksen Office Building Room G-31
Washington, DC 20510

Re: HCFA Study Staffing Phase I

Dear Senator Grassley:

The National Association Directors of Nursing Administratin in Long Term Care (NADONA) appreciates your interest in how patient care is delivered in today's long term care settings.

We would like to comment on the interviews conducted by Abt Associates in the Phase I study on staffing in nursing homes. It is our opinion that the study neglected to include those who direct the direct care givers...the licensed nurse. If we are to get an idea of the workload of this licensed staff, then their activities and time and comments should be a part of the study or subsequent studies. In addition, important requirements of federal law, nurse practice acts and basic considerations of good nursing practice should be taken into account if an accurate assessment of *time* is to beconsidered.

Regarding nursing administration, how will HCFA account for nursing administration responsibilities which include but are not limited to recruiting, orienting, evaluating, delegating, conducting quality assurance programs, monitoring infection control, reviewing/revising nursing policies/standards, scheduling of staff, maintaining patient records and documentation, etc.?

We are hoping that Phase II will explore these issues in order to get a better perspective of the *time* involved (for all levels of caregivers) in providing appropriate care for our nation's long term care patients.

NADONA is willing to provide any assistance HCFA may need in assessing the time and activities of the licensed nurses and directors of nursing in long term care facilities.

Cordially,

NADONA/LTC
Joan C. Warden-Saunders
Executive Director

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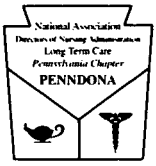
www.nadona.org



RR 2 Box 11
Millerton, Pennsylvania 16936

August 28, 2000

Senator Charles Grassley, Chairman
Senate Special Committee on Aging
Senate Dirksen Office Building Room G-31
Washington, D.C. 20510

Dear Senator Grassley:

As a long-term care nurse, a director of nursing in long term care for thirteen years, a nursing home employee for twenty-five years, President of the Pennsylvania Chapter of the National Association of Directors of Nursing in Long Term Care (NADONA,) past President of the New York Chapter of NADONA, National Treasurer and Board Member of NADONA, and Chairperson of the NADONA Legislative Committee, I appreciate your efforts to find ways of improving care in our nursing homes.

HCFA's study of adequacy of staffing in nursing homes could provide a much-needed estimate of the ratios and/or staffing hours needed to provide good care. Having read Phase I in its entirety, I recognize it did not address the full range of nursing responsibilities and duties required from each level of nursing personnel. There were no focus groups of direct care nurses (staff RNs and LPNs) included in the Phase I staffing study. At meetings of the Pennsylvania Nursing Home Culture Change Coalition, we have identified these direct care nurses as the most critical nursing employees with regard to influencing the internal culture of nursing homes. If they do not acknowledge and accept the need for change, nursing homes will not become better places to live and work. Determining recommended levels for direct care nurses based on focus groups with other than direct care workers seems to have based that decision on hearsay from interviews with CNAs, Directors of Nursing, and Administrators. Interviews with all levels of nursing staff must be conducted.

I am impressed with the Staffing Study's scientific methodology displayed in Chapter Twelve, which was used to determine Effects of Nurse Staffing on Selected Quality Measures for Long Term Residents Derived from the MDS. This chapter's process seems highly valid.

Having worked many years in New York, one of two states studied in the Quality Measure/MDS work, and one of seven states studied in HCFA'S Staff Time Management Minutes System of Chapter Thirteen, I have first hand knowledge of errors in the data collection process, especially when staff utilized Datawand data collection instruments to capture task time while integrating that duty into their heavily scheduled work day of caring for a full assignment on their nursing unit. Accurate wanding was not the nursing staffs' first priority. Wanding of information became a burden added on to an already

overloaded day, and a task that was not valued by many who were assigned to perform it.

I would like to comment that I found the majority of the chapters presented an incredibly accurate picture of nursing homes. The analysis of causes of short staffing was unbiased and realistic. The comments about accuracy of OSCAR data, however, seemed to imply intent to inaccurately report information, which I believe is doubtful. These forms are completed under the stress of intense facility scrutiny by teams of Surveyors who arrive unannounced and need the paperwork completed as quickly as possible. Human error or lack of understanding of the directions are the more likely causes of errors, rather than intent to misreport staffing hours, or in other ways manipulate the information. Obviously Cost Reports provide higher accuracy of information.

One final area of concern for me in the Phase I Study is this: many data references cited were from old studies, some as far back as 1975. How can this information be reported as current knowledge base, when so much has changed in the regulation and administration of nursing homes since then? I recommend nothing be included that is older than the Scope and Severity Grid methodology of determining the level of citations. Some of the references, in my opinion, were included for the purpose of sensationalism. Chapter Six is particularly laced with old references listed in footnotes and in a full paragraph on page 6-26.

As you prepare to move into Phase II, please consider that recommendations of minimum staff time needed must include realistic estimates of the time required for coordination of resident assessments and care plans, supervision and teaching of staff, evaluation of resident responses to care, documentation of care and communication with physicians, families, and other providers of care and services, in addition to inclusion of data from focus groups of direct care nurses.

To attract and retain quality workers to nursing homes, all levels of nursing personnel need circumstances that allow them to give good care. I applaud you for your efforts to uncover the facts and to devise accurate, adequate solutions. I will continue to follow with interest the work of the Senate Special Committee on Aging.

Sincerely,

Betty MacLaughlin Frandsen RN, NHA

c: Senator Rick Santorum, Pennsylvania

August 25, 2000

Senator Grassley, Chair
Senate Special Committee on aging
U. S. Senate
Washington, D.C.

Dear Senator Grassley:

I ask that this letter be part of the record on the Nursing Home Staffing hearings.

From 1971-1981, I directed the Washington office of the American Nurses Association. During that decade, the question of establishing minimum standards for staffing of nursing homes was debated several times. At that time, ANA expressed its concern that the "minimum" would become the usual standard and opposed such a move.

Over time, I personally now feel it is essential that minimum standards for staffing nursing homes be set. However, due to the very rapid increase in acuity of care needs and technological changes it must be mandated that those standards be set by an expert committee comprised of gerontology nurse experts, gerontologists, and consumers and that the expert committee report to Congress every five years with its recommendations as to the need for alteration in the staffing requirements. Standards must not be allowed to be stagnant or the public will be ill served.

My name is also on a more comprehensive letter being submitted for your hearing record, but I did want to especially stress this point.

I commend your Committee and its staff for your efforts on this important issue and urge you also do more to ensure more adequate reimbursement for homes, hospice, and long term care services.

Constance Holleran RN, MSN, FAAN
Silver Spring, MD 20906
207-677-2111 (summer)

TAR INFORMATION

The Coastal Journal

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THURSDAY
August 24, 2000
COMPLIMENTARY

VOLUME 34 — A BLETHEN MAINE NEWSPAPER — ISSUE 35

LABOR SHORTAGE FELT IN MAINE'S NURSING FACILITIES

Legislation Expected To Provide Relief

by Jackie A. Cabral
Staff writer

BATH – Due to a good economy and the summer season, long term care facilities are having trouble keeping up in a very competitive employee market. Facilities such as Mere Point Center for Nursing and Rehabilitation in Brunswick and Windship Green Nursing Center in Bath are anticipating state funding that will help to reimburse their facilities and attract workers.

Penny Sargent, Director of Operations at Vernon, the company which owns Windship Green and other nursing centers along the coast, said that wages are trying to be made competitive, CNA courses are held and new ones developed at Windship Green in an effort to curb labor shortages here. "There is not enough man power," said Sargent. She described the situation at Windship Green as "pretty typical" of other facilities in the mid-coast community and what she suspects will be seen throughout the nation. "This is a really serious problem," said Sargent. "Our coastal facilities are more challenged because of seasonal better jobs. The country will see Maine's problem in the next five years, we're just really noticing now."

Sargent is not the only one feeling pressure from the booming summer economy. Mark Lowell at Mere Point said that they are witnessing a shortage of workers as well. "We're experiencing difficulty, too. There is a crunch on facilities related to staffing. There is a definite labor shortage," said Lowell. Mere Point is also providing CNA courses to help battle the shortage. This year there will be four training programs, one more than last year.

Help may be on the way, however, for nursing facilities in Maine. Legislation has been passed that will help these facilities although the funding will not be seen until the fall. The total amount that will be used to upgrade nursing facilities will be approximately $12 million. The bill, passed in January of this year, was drafted by the Maine Health Care Association (MHCA).

Part of the bill will make modifications to the state's reimbursement system. Nursing facilities all over the state are reimbursed based on 1993 data which they send in to the Department of Human Services. This bill will require the Department of Human Services to use data from a more recent year, presumably 1998, to calculate reimbursement for facilities' routine costs. According to MHCA President Paula Valente, many facilities have been spending their own money and should be compensated. Said Valente, many have tired out of their own pocket, some money needs to be sent as a delayed reimbursement. The new bill should help. The upgrading of reimbursement rates was referred to by Valente as something "long overdue."

At Mere Point, Lowell said that he feels "cautiously optimistic" about the new legislation. He does believe that it could provide some relief for the labor shortage. "I think that will help us as we try to compete in a more competitive labor market," he said.

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To: Senator Charles E. Grassley, Chairman
Senate Special Committee on Aging
Fax: 202-224-6660

From: Phyllis Peavy
Fax: 302-239-1391

Date: August 30, 2000

Regarding: Health Care Financing Administration Draft Report on Phase I of the OBRA '90 mandated study of "Appropriateness of Nursing Home Minimum Staffing Ratios"

12 Raphael Road
Hockessin, DE 19707
August 30, 2000

The Honorable Charles E. Grassley, Chairman
Senate Special Committee on Aging
Dirksen Senate Office Building, G-31
Washington, DC 20510

Dear Senator Grassley,

I am writing regarding the HCFA draft report on Phase I of the OBRA '90 study of the "Appropriateness of Nursing Home Minimum Staffing Ratios". I have served for three years on Senator Robert I. Marshall's State Legislative and Citizens Investigative Panel on Nursing Home Reform in the state of Delaware and in addition spent many years at home and in institutional settings caring for may father who was a dementia victim.

It seems inconceivable to me that our basic societal responsibility of providing adequate nursing home care for our loved ones can elicit such controversy and require so many experts and case studies to determine the parameters of acceptable practice. I am concerned about the delays in addressing this issue and am hoping that the study currently underway will not take too long to determine a minimum staffing standard since there is compelling evidence that a considerable percentage of nursing homes in this country have been failing in their mission for decades. I also hope that the study will not focus so strongly on past staffing patterns that it will overlook what are the optimal requirements for good care in the future as nursing homes assume responsibility for sicker and sicker residents.

I doubt that there are any cheap solutions or quick fixes. There are no blue light specials when it come to medical care as illustrated by Great Britain's experience documented on page 3-3 of the draft report which states "...because nursing homes are underfunded, continuously understaffed, and have inappropriate skills-mix, the quality of care of the residents has been compromised". I know from the years of debate over the Delaware staffing bill that cost is of paramount concern among many industry leaders, but I also feel that we as a nation must squarely face what it costs to give decent care because there is a high price to be paid in human suffering when the care delivery system breaks down. It is a waste of taxpayers' money to pay for care that is not administered properly.

Lastly, in addition to Certified Nurse Assistants, the importance of the professional nurse cannot be overlooked. There is such a wide range of technical, supervisory and administrative responsibilities assigned to nurses in long term care that any shortage of qualified workers severely restricts them in their ability to give optimal care. Their licensure holds them accountable, and this is one of the limited protections the public has in an unreliable system of care delivery and regulation.

Thank you for this opportunity to comment.

Sincerely,

Phyllis Peavy

Phyllis Peavy

Comments and Observations re
Abt Associates study and HCFA Report to Congress (8/1/00):
An Educators View

Overview:

The quality of care provided nursing home residents has long been an item of concern. With the exploding numbers of elderly in the United States, including the exponential numbers of frail elderly, the concern is magnified and urgent. Ratio of staffing is indeed one way to address the actual problems encountered. However, research and resultant recommendations need to be based on quality data that considers improvement of care and not solely maintenance of minimum standards and preventing "adverse conditions".

Observations:

The numbers of elderly entering acute care settings and long term care settings has drastically increased with the shift in population aggregates. It has been said that on any given day approximately 65% of patients in acute care settings are 65 years and older. In long term care agencies, the ratios are well over 90%. Of those elders in long term care facilities, the majority are the frail elderly. It is well documented that the occurrence of chronic health problems increases dramatically in the frail elderly and the multiplicity of problems that are seen represent a challenge to provide quality care for all health care practitioners. Nursing represents but one health discipline, yet the one usually responsible for the overall care of the frailest of elders.

Quality of care issues are frequently not addressed from an improvement standpoint. Most studies and those cited focused primarily on recommendations to prevent further health care problems. Meeting AHCPR Guidelines for Skin Care was mentioned briefly but none of the other AHCPR guidelines for quality care were mentioned. Prevention of "endangering lives" was stressed but not (or minimally so) health promotion activities. Even our elders, deserve to have care directed at restoration of functional abilities and promoting health to their most optimal level.

Along this same vein, level of care or case mix issues do need to be more comprehensively addressed. No differentiation is made in ratios recommended for skilled and intermediate care facilities. In both we find older adults who have more compromised health statuses than in the past. The acuity level in skilled facilities if frequently that found in acute care settings yesterday. Stay requirements have pushed patients into nursing homes as an only option at times. Assisted Living facilities attract those patients who need help with managing their daily living activities. Nursing homes and research studies conducted even one to two years ago could not possibly consider the impact the resultant case mix has hand on current staffing needs.

As an educator with undergraduate nursing students and a former gerontological clinical specialist in gerontology, several observations stand out. First, undergraduate curriculums traditionally placed beginning nursing students in nursing homes to learn basic nursing skills. Our current undergraduate curriculum places students with gerontological clients as a

specialization course, after all skills have been taught and they have had initial nursing experiences in acute care settings, including Intensive Care Units. One of the reasons the timing for these experiences was adopted is that we recognized the complexity of care involved in the patient cases found in most long term care settings. Our elders are older and have a variety of acute and chronic illnesses affecting their functional abilities and overall health status. Acute illness has a devastating affect on the health of compromised elders with other chronic health problems. For instance, flu and pneumonia are among the top five causes of death in the elderly. The knowledge and skill required of nurses to provide care, manage treatment plans, oversee nursing staff, coordinate the care of multidisciplinary teams is challenging and requires expertise, education and management skills at the least. All too frequently we find nurses staffing these facilities without updated education, those who are afraid to enter acute care settings because of the acuity of care. They find they do not have the skills needed or required to effectively manage, coordinate, provide the necessary care. Ratios of staff are at times misleading, the director of nursing (at times also the administrator), is figured in the overall ratio, as are licensed practical nurses. Each of these has a place in long term care but registered nurses and at best registered nurses with advanced degrees should be providing bedside patient care, determining outcomes through the use of nursing science, training non-licensed personnel and managing overall treatment plans.

Second, when students are polled, albeit informally, about their choice for practice arenas, nursing home and care provided the elders frequently is not where they would select for employment. Reasons given are not that they do not see the need, nor desire to work with the elderly but that regards and incentives are not present. Students recognize the need for nursing staff and many would prefer working with this population and do find it one of the most challenging areas in nursing. However they state: nursing home staff are usually toward the bottom of the pay scale; benefits are minimal; staff ratios are unrealistic for quality care; turnover rates are high because of burnout and frustration with not being able to give the best care possible; there are few role models with the credentials and expertise needed to provide overall direction and mentoring to new staff.

A number of nursing homes have been used for clinical placement of students. The vast majority of care givers truly "care" about their residents. Caring is not enough. Continuing education support for nurses in many facilities is minimal. Many are frustrated with the inability to keep abreast of the advances in health care practices. Support to implement innovative nursing care strategies is minimal if present at all. Frequently equipment is outdated, if new is brought in, training is minimal.

Staffing recommendations need to address more than minimal standards of care. Quality of care issues, quality of staff and expertise, case mix ratios, retention and recruitment of staff are but a few. Contact ratios recommended for registered nurses, licensed nurses and CNAs seem to be very inadequate. Time needed for feeding one client often extends beyond one hour of time. Ambulation and range of motion activities to prevent deterioration frequently take 30 – 40 minutes for one patient. These activities are just two of the basics they do and not begin to take into consideration the time also needed to adequately assess mobility status and changes, often subtle, nor the time required to advance the clients to their optimal levels.

Sheryl Miller, MA, RN
Lecturer
Adult and Gerontology Studies
College of Nursing
University of Iowa
Iowa City, Iowa

August 31, 2000

Senator Charles Grassley, Chairman
Senate Special Committee on Aging
Senate Dirksen Office Building Room G-31
Washington, DC 20501

Honorable Senator Grassely,

I am writing in response to the Abt Associates Study and the HCFA Report to Congress dated August 1, 2000, on the appropriateness of minimum nurse staffing ratios in nursing homes.

I would like to preface my comments by saying that I believe that we are in crisis with care provided in nursing homes in this country. While there continues to be much improvement in quality of care, deplorable care and living situations continue to exist in many of our nation's nursing homes. The Nursing Home Reform Act did much to raise consciousness about quality care and increased regulation, it has often resulted in increased attention to the documentation of care (assessments) and done little and in fact may have diverted resources that could otherwise be used to provide improved care and address issues of the resident's quality of life. The majority of Americans report that they do not want to live in or place their family member in a nursing home. That means we must address the problem.

There have been a number of studies (Braun, 1991, Dellefield, 2000, Munroe, 1990,Spector & Takada, 1991) documenting the relationship of staffing to quality in nursing homes. It is very difficult to conduct research to document the relationship of quality and staffing because of the variation in facilities, residents, environment. As the Abt Associates Study indicated there is a need for further study.

However, there is no doubt that improved staffing is needed and consistent enough results to indicate that improved staffing results in improved outcomes, even if the science is not yet precise it's a beginning. The research done to date needs to be used to make a decision to increase the required staffing ratios. If we put this critical decision off until there is the perfect study, or until the industry can afford it, or until staff are available, we will continue to subject the old people in this country to substandard care.

The crucial variable of interest to me, and to my colleagues at the University of Iowa College of Nursing is the desperate need for Registered Professional Nurse leadership in nursing homes. There have been consistent literature reviews (examples: Maas, Buckwalter & Specht, 1996, IOM Study) and the more recent Hartford proceedings documenting the need and positive relationships between numbers of registered nurses and the quality of care. The Abt Associates Study's recommendation for 12 minutes of RN time per day per residents in nursing homes is unreasonable and will not address the problem. Even the Hartford recommendation is minimal at best. However, it does

recognize the more complex roles of registered nurses in nursing homes in both leadership and delivery of care to residents. If we wait until there are adequate numbers of nurses available to fill the recommendations we will never move forward. Let us set a reasonable standard and strive to meet it through adequately reimbursing nursing homes, providing incentives for persons to work in long term care, funding research that will address these issues.

I was the Director of Nursing at an 800 bed long term care facility for veterans for over 20 years. The care continued to get more complex and the care requirements continued to escalate. When I left the facility 5 years ago, we were staffing with 4 hours of care on our heaviest care units and it was inadequate to meet the needs of the residents. Since then, with the advent of Assisted Living and other alternative living arrangements for older, chronically ill persons the care needs have increased. This makes the Hartford recommendations even more reasonable.

In conclusion, I would like to thank you for having hearings on this problem and urge you to take action.

I would be happy to talk with you in more detail about my concerns and recommendations.

Thank you for this opportunity.

Janet K. Pringle Specht, PhD, RN
Assistant Professor
Adult and Gerontology Studies
College of Nursing
University of Iowa

The Nursing Service Group, Inc.

P. O. Box 32
Barrington, Illinois 60011
Telephone (847) 382-1629 Fax (847) 382-1641

August 8, 2000

The Honorable Senator Charles Grassley
Senate Hart Building –135
2nd & C Streets, NE
Washington, D.C. 20510

RE: HCFA Staffing draft study and appropriateness of minimum nurse staffing ratios.

Dear Senator Charles Grassley:

I am a current and practicing unit staff registered nurse providing "direct hands on" resident care in a long term care facility and long term care nurse consultant. It is imperative that HCFA mandate minimum staffing for all levels of nurse staff areas and more importantly the need for gerontological educated registered nurses and licensed practical nurses. Without having substantial minimum staffing levels mandated which are accountably enforceable, there will never be safe, competent and quality care provided by most of our nation's nursing homes.

I recently reviewed nursing home records for an Illinois nursing home. This home is a Medicare / Medicaid certified facility for 70 residents. One night shift had only one nurse aide in the facility for the 70 residents when payroll punched time cards were compared to the facility prepared nurse staff schedule. There were no other nursing staff members and this nurse aide had not even demonstrated her skills to be placed on the Illinois nurse aide registry. Additionally this nurse aide was working a double shift (16 hours) and the night shift was her second shift. Yes, there was no other nursing staff in the building! During another night shift, there was one CNA and one nurse aide for the entire 70 residents as well as no registered or licensed nurse. This lack of staff is criminal! Illinois Department of Public Health (IDPH) had recently surveyed the facility but only reviewed the facility nurse staff schedule and never validated the punched time cards for payroll. Numerous times on other nursing home records I have compared payroll punched time cards with nurse aide charting and staffing schedules only to find there is less nursing staff than the facility reports.

This demonstrates the lack of enforcement and competency of surveyors and their supervisors. Inspections by IDPH does not assure "sufficient" staffing, and inspectors need some basic staffing minimums to begin the process of evaluating "sufficiency." Illinois has some antiquated 20 year old staffing requirements and comparison to these

ratios does not meet the needs of the current nursing home resident due to the modern resident acuity levels. Another problem is IDPH does not audit the validity of the facility provided nurse staff schedules nor even attempt to look at payroll punched time cards.

The education and training level for nurse aides is so low that a manicurist in Illinois is better trained and educated. An Illinois manicurist is required to complete 350 hours of training to provide nail care, while a nurse aide in Illinois only is required 120 hours of training to bathe, transfer, reposition, toilet, feed and provide hygiene to residents. The clinical experience for nurse aides is a mere 40 clinical hours in Illinois. The federal requirements used by other states is even less, only 75 total training hours. It is an aberration to consider that nurse aides can provide competent care without registered nurses. This illustrates the need for an appropriate number of on duty registered nurses at all times to implement the competent nursing process.

An additional concern with the HCFA study is that the study has come up with staffing minimums that are dangerously low. An example is a resident who is bed bound and needs 24 hour diapers, repositioning and ADL enhancements per HCFA's standards is checked 8 times in 24 hours where as per the nursing "Best Practices" requires a minimum of 12 times in a 24 hour day. How can this HCFA study be called "Best Practice" under "ideal staffing? How can anyone consider a 15-minute shower every fourth day for an incontinent bed bound resident quality of life? These minimal care times are obviously void of registered nurses overseeing or providing the nursing care. I would sincerely hope in today's society all of us who provide our own personal care have a shower more than once every fourth day. The exercise times are also of grave concern. A bed bound dependent resident to have only 2 minutes or 16.50 average daily time for passive range of motion is outrageous and neglectful. This resident will surely develop contractures which are more debilitating and painful!

Today's residents are more critical due to shorter hospital stays. Due to the minimum education and training of nurse aides it is extremely important to have the appropriate numbers of RN's to assess, monitor, plan and implement the nursing process. RN's are the eyes and ears for many residents and must communicate with the physicians as well as supervise the ADL care of the residents which is provided by the nurse aides. The HCFA study does not appropriately and accurately address the importance of RN's and implies a minimal RN role in the projection of the minimum staffing needs. In fact, to address the staffing problems in nursing homes with nurse aides is a cheap and dangerous method.

Reimbursement to nursing homes must be tied to the staffing levels in an accountable and auditable method. Review of the cost reports filed annually to the public aid departments in the individual states will tell an interesting story of where the money really does go. The line items document high and often excessive money paid to owners and management. To follow the money trail is very important especially when the money trail is traced to the layering of the various corporations, management organizations and "professional" services to their "own" companies. The same Illinois nursing home referred to in the above example of lack of staff had over $ 240,000 in

annual dividends paid to the owners and a documented profit for two separate years while the nursing home was understaffed. Additionally when the amount of public aid money paid to the facility for the staffing component was compared to the actual filed cost dollars for nurse staffing, there was excessive money never used for nursing staffing. Illinois Department of Public Aid has not audited the Illinois nursing homes for a number of years nor is the public money paid to nursing homes accountable. Unfortunately it is the helpless, frail and defenseless nursing home resident that has suffered!

It is my professional opinion as a long-term care nurse and nurse aide educator for over 16 years that HCFA study has grossly underestimated the amount of time nurse aides need to perform necessary tasks. Additionally there is an urgent need to study the realistic time required for registered nurses to provide appropriate implementation of the nursing process. This process includes but is not limited to supervised and accountable delegation to LPN's and CNA's. Licensed nurses also pass medications, provide treatments, resident assessments, monitor resident status, communicate with the residents regarding needs and resident care documentation must be completed. These issues have not been addressed and must be in the second phase of the HCFA study. Please find the enclosed task list and time indications for CNA provided care.

If you have further questions regarding any of the above information and comments, I look forward to speaking with you.

Sincerely,

Deborah C. Karas, RNC, MS

cc: Nancy Ann Min DeParle, HCFA; Sheila Abood, American Nurses Association; Congresswoman Jan Schakowsky

dck/enclosure

Daily Duties of the Certified Nursing Assistant (CNA)[1]

A CNA will typically work a minimum of one shift a day, 7.5 (or 8.0) hours. The CNA has a 30 minute meal break and two 15 minute breaks per shift. This allows 390 (420) minutes for resident care in each shift. Often the CNA will work a double shift at the facility or have another job at another nursing home. Frequently, the CNA holds down two jobs due to low wages, resulting in many days of 16 hour work days. Additionally, the CNA will often work 6 or 7 days per week.

The following are examples of resident care responsibilities a CNA[2] may have on a single daily shift:

Shower...(whirlpool is at least 30")	10 - 30 min.
Bed bath	10 - 15 min.
Personal hygiene care (each time incontinent)	5 - 10 min.
Partial baths (face, oral care, hands, peri-care) on each resident	10 min.
Foley catheter care	5 - 10 min.
Empty and measure catheter bag at end of shift	5 min.
Oral care / dentures	5 - 10 min.
Groom / shave resident	5 - 10 min.
Dress resident	5 - 15 min.
Nail care to resident	5 - 10 min.
Body / hand lotion to skin	5 min.
Toilet resident	10 - 15 min.
Vital sign's (temperature, pulse, respiration's & blood pressure)	5 -10 min.
Set up meal tray, document food / fluid intake each meal	5 - 10 min.
Total feed the meal to a resident	20 - 60 min.
Each CNA may have a minimum of 2 residents to feed	40 min.
Serve and feed nutritional supplements during the shift	1 - 10 min.[3]
Handwashing between resident	30 sec. - 2 min.[4]
Bed making - unoccupied	5 min.
Bed making - resident in the bed	10 - 15 min.
Resident unit organization	5 - 10 min.
Documentation & observations on the resident care records	3 - 5 min.
Passive range of motion (5 - 10 repeats) to resident	10 - 15 min.
Ambulating resident to dining room or other areas	10 -15 min.
Assessment of pain, depression and behavior	5 - 10 min.
Turn and reposition a resident	5 - 10 min.

The Nursing Service Group, Inc., P O Box 32, Barrington, IL 10011
Tele: 1-847-382-1629 Fax: 1-847-382-1641 email: auntsaddy@aol.com

If a CNA has nine (9) residents in her/his group for the day shift, the following minutes could be needed to complete the resident care responsibilities:

Four showers to give (15" each)	60 min.
Five bed baths or partials (15" each)	75 min.
One catheter to empty, measure and document	5 min.
Four incont. res. to clean / change (3 times x 5" each)	60 min.
Document on the resident care and observations (3" each)	27 min.
Make at least 9 beds, including clean linens (5" each)	45 min.
Set up 7 meal trays (2 meals on day shift - 5" each)	70 min.
Toilet five residents (3 times on day shift - 5" each)	75 min.
Groom / shave / oral care 9 residents (15" each)	135 min.
Total minimum minutes needed to provide the care	**552 min.**[5]

On a day shift, if a CNA has 9 residents on her / his team and completes the necessary care tasks following the standard of care, the CNA needs 162 (132) more minutes to perform the resident care responsibilities. However, many CNA's have between 10 & 15 residents on the day shift. The CNA may have more residents if a staff member calls in sick. On the evening shift, a CNA may have between 15 & 25 residents to feed; assist with the evening meals; get ready for bed as well as make nursing rounds every 2 hours to turn, reposition and clean if the resident is incontinent. Handwashing between residents as required for infection control is not included in the above time figures.

It is important to obtain the job description of the CNA. The following questions need to be asked:

1. Number of residents a CNA has in the shift?
2. How many residents are total care, need toileting, feeding, assistance with ambulation and other care needs?
3. What happens when a CNA calls in sick or does not show for work?
4. Was there assessment for pain control, anxiety and depression?
5. Does the resident have a dementia process and need additional time for care due to the residents difficulty in understanding the CNA?

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[1] Certified Nursing Assistant on the State CNA Registry.
[2] Many facilities use different names, such as resident aides, nurse technicians, "care buddies", ambassadors, care technicians, etc. There are approximately 20 - 30 names used in the long term care industry for CNA job descriptions.
[3] Supplements & additional fluids are usually given at 10 AM and 2 PM and with evening snack(HS) 8 PM.
[4] Handwashing - nursing standard, Sorrention, S. *Mosby's Textbook for Nursing Assistants*, 4th ed.p. 187 Hands must be washed before and after giving care, including vital signs. Standard precautions require additional time.
[5] Times & resident care responsibilities included in this documentation are reproduced with the permission of Attorney Lesley Clement, Sacramento, CA. A similar list was prepared by Lesley Clement & Dorothy Fisher, RN, BSN, Bakersfield, CA and used in preparation of this document.

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