

**Department of Health and Human Services**

**OFFICE OF  
INSPECTOR GENERAL**

**INSPECTION RESULTS ON  
NURSING HOME COMPARE:  
COMPLETENESS AND ACCURACY**



**Inspector General**

**June 2004  
OEI-01-03-00130**

# **Office of Inspector General**

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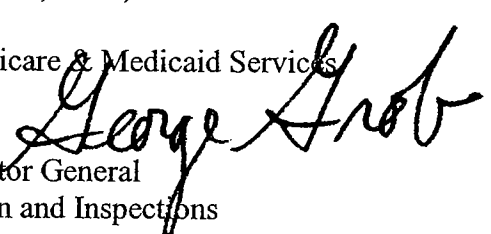
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JUN 30 2004

TO: Mark B. McClellan, M.D., Ph.D.  
Administrator  
Centers for Medicare & Medicaid Services

FROM: George F. Grob   
Assistant Inspector General  
for Evaluation and Inspections

SUBJECT: OIG Final Report: "Inspection Results on Nursing Home Compare: Completeness and Accuracy," OEI-01-03-00130

Attached for your review is a final inspection report on the completeness and accuracy of Nursing Home Compare's inspection results section.

Nursing Home Compare is a Web site maintained by the Centers for Medicare & Medicaid Services (CMS) that provides consumers with information on nursing home quality. Consumers use the information on the site to help them choose the nursing home that best fits their needs. Therefore, it is essential that the site accurately portray all Medicare- and Medicaid-certified nursing homes. Using CMS databases and State survey documentation, we determined whether the site contained all Medicare- and Medicaid-certified nursing homes, and for a random sample of nursing homes, determined the accuracy of the inspection results provided on the site.

Overall, Nursing Home Compare's inspection results provide consumers with a valuable resource on the past performance of Medicare- and Medicaid- certified nursing homes. We found that Nursing Home Compare contains nearly all Medicare- and Medicaid-certified nursing homes. However, one or more surveys were missing from 19 percent of nursing homes, leaving consumers with incomplete information about those homes' survey and complaint histories. Inspection results on Nursing Home Compare are largely accurate, but one or more deficiencies were missing from 11 percent of nursing homes' inspection results, and Nursing Home Compare presents deficiencies not found on State survey documentation for 15 percent of nursing homes. Inaccuracies may be due to late data entry by State survey agencies, no tracking of inaccuracy reports by CMS, and failure of State survey agencies to transmit data on amended deficiencies.

We recommend that CMS require State agencies to verify that the most recent inspection results are in CMS databases and establish a single point of contact for reporting discrepancies on the Web site.

Page 2 – Mark B. McClellan, M.D., Ph.D.

Please send us your final management decision, including any action plan, as appropriate, within 60 days. If you have any questions or comments about this report, please do not hesitate to call me or one of your staff may contact Tricia Davis, Director, Medicare and Medicaid Branch, at (410) 786-3143 or through e-mail [[Tricia.Davis@oig.hhs.gov](mailto:Tricia.Davis@oig.hhs.gov)]. To facilitate identification, please refer to report number OEI-01-03-00130 in all correspondence.

Attachment



## A B S T R A C T

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Nursing Home Compare is a Web site maintained by the Centers for Medicare & Medicaid Services (CMS) that provides consumers with information on nursing home quality. Consumers use the information on the site to help them choose the nursing home that best fits their needs. Therefore, it is essential that the site accurately portray all Medicare- and Medicaid-certified nursing homes. Using CMS databases and State survey documentation, we determined whether the site contained all Medicare- and Medicaid-certified nursing homes, and for a random sample of nursing homes, determined the accuracy of the inspection results provided on the site. We found that Nursing Home Compare contains nearly all Medicare- and Medicaid-certified nursing homes. However, one or more surveys were missing from 19 percent of nursing homes, leaving consumers with incomplete information about those homes' survey and complaint histories. Inspection results on Nursing Home Compare are largely accurate, but one or more deficiencies were missing from 11 percent of nursing homes' inspection results, and Nursing Home Compare presents deficiencies not found on State survey documentation for 15 percent of nursing homes. Inaccuracies may be due to late data entry by State survey agencies, no tracking of inaccuracy reports by CMS, and failure of State survey agencies to transmit data on amended deficiencies. We recommend that CMS require State agencies to verify that the most recent inspection results are in CMS databases and establish a single point of contact for reporting discrepancies on the Web site.



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## OBJECTIVES

To determine if Nursing Home Compare includes all Medicare- and Medicaid-certified nursing homes.

To determine whether Nursing Home Compare includes all intended inspection results.

To determine the accuracy of nursing home inspection results provided on the Nursing Home Compare Web site.

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## BACKGROUND

In 1998, the Department of Health and Human Services (HHS) launched the Nursing Home Compare Web site. The site is maintained by the Centers for Medicare & Medicaid Services (CMS). Nursing Home Compare provides information about the past performance of all Medicare- and Medicaid-certified nursing homes in the country. The site also serves as a source of public information on nursing home quality. Consumers can use the information provided on the site to help them choose the nursing home that best fits their needs. Therefore, it is important that the site accurately portray all Medicare- and Medicaid-certified nursing homes.

This report focuses on the inspection results section of Nursing Home Compare. This section provides results from a nursing home's three most recent Medicare certification surveys (referred to as health surveys on Nursing Home Compare and in this report) and any complaint investigations. The information in the inspection results section includes type of deficiency, survey date, date the deficiency was corrected, and scope and severity of the deficiency.

We base this inspection on the Nursing Home Compare database as of April 1, 2003. To determine completeness, we matched the nursing homes on the site with those on a CMS database that contains information on Medicare- and Medicaid-certified nursing homes. To determine accuracy, we matched Nursing Home Compare inspection results from a simple random sample of 150 nursing homes with State survey documentation. The State survey documentation includes statements of deficiency from health surveys and complaint investigations, as well as informal dispute resolution outcomes.

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## FINDINGS

**Nursing Home Compare contains almost all Medicare- and Medicaid-certified nursing homes.** Less than 1 percent of nursing homes did not match to either Nursing Home Compare or the Minimum Data Set (MDS) facility file, a demographic database of nursing homes maintained by CMS. Nursing Home Compare excluded 55 nursing homes (0.2 percent) included in the MDS facility file. Nursing Home Compare included 119 nursing homes (0.7 percent) that were not found in the MDS facility file over a 5-month period.

**Nineteen percent of nursing homes had one or more surveys missing on Nursing Home Compare.** Nursing Home Compare lacked the most current health survey for 7 percent of nursing homes, meaning that it instead provided older information. It also lacked either a complaint investigation or the second or third most recent health survey for 12 percent of nursing homes. Furthermore, when Nursing Home Compare does not include deficiencies from complaint investigations, consumers have no way of determining that.

**Inspection results on Nursing Home Compare are largely accurate, but some areas of concern exist.** Sixty-eight percent of nursing homes had Nursing Home Compare inspection results that exactly matched State survey documentation. Eleven percent of nursing homes had one or more deficiencies missing from their inspection results on Nursing Home Compare. Furthermore, Nursing Home Compare presents deficiencies not found on State survey documentation for 15 percent of nursing homes. These inaccuracies may be due to late data entry by State survey agencies, no tracking of inaccuracy reports by CMS, and/or failure of State survey agencies to transmit data on amended deficiencies.

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## RECOMMENDATIONS

Overall, Nursing Home Compare's inspection results provide consumers with a valuable resource on the past performance of Medicare- and Medicaid- certified nursing homes. However, we found some inaccuracies between Nursing Home Compare and State survey reports that deserve attention, and suggest that CMS could do more to ensure that consumers receive the most accurate data possible when choosing a nursing home.

**CMS should work to enhance Nursing Home Compare by:**

**Requiring State agencies to verify that the most recent inspection results are in CMS databases.** Timely and accurate inspection results on Nursing Home Compare depend on State surveyors transmitting data into the Online Survey Certification and Reporting system (OSCAR), the CMS database containing survey information. To ensure that data have been promptly transmitted into OSCAR, State agencies should verify the most recent inspection results in OSCAR with those in the Automated Survey Processing Environment (ASPEN) system, the application used for survey data entry and transmission to OSCAR.

**Establishing a single point of contact for reporting Nursing Home Compare inaccuracies.** By having a single point of contact within CMS for reporting inaccuracies, CMS would be able to track and conduct follow-up on information that is reported to be inaccurate.

**Agency Comments**

CMS agreed with our first recommendation to require State agencies to verify that the most recent inspection results are in Nursing Home Compare, citing it has performance standards under development.

CMS disagreed with our second recommendation to establish a single point of contact for reporting Nursing Home Compare inaccuracies. The agency commented that “multiple CMS components are involved in providing Nursing Home Compare data on the Web site”, making a single point of contact impractical. CMS, however, will consider adding regional office contact information to Nursing Home Compare to facilitate corrections to the Web site. We continue to believe that a single point of contact for reporting inaccuracies would be the most effective solution. However, we appreciate CMS’s consideration of adding regional office contact information to Nursing Home Compare, and urge CMS to follow through on this idea.





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## OBJECTIVES

To determine if Nursing Home Compare includes all Medicare- and Medicaid-certified nursing homes.

To determine whether Nursing Home Compare includes all intended inspection results.

To determine the accuracy of nursing home inspection results provided on the Nursing Home Compare Web site.

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## BACKGROUND

### **Nursing Home Compare**

In 1998, the Department of Health and Human Services (HHS) launched the Nursing Home Compare Web site. The purposes of the site are "to provide detailed information about the past performance of every Medicare- and Medicaid-certified nursing home in the country" and to serve as a source of public information on nursing home quality.<sup>1</sup> The site allows Medicare beneficiaries and their caregivers access to individual nursing home quality information to help them choose the nursing home that best fits their needs. Consumers access Nursing Home Compare through the main consumer Medicare Web site, [www.medicare.gov](http://www.medicare.gov).

The Centers for Medicare & Medicaid Services (CMS) operates Nursing Home Compare. CMS intends the information on the site to be used with other sources of information, such as a visit to a nursing home. Currently, the site provides information on about 17,000 nursing homes. Between March 2002 and July 2003, Nursing Home Compare received an average of 134,000 visits per month. Nursing Home Compare presents four categories of information:

- inspection results, including deficiencies from Medicare certification surveys and complaint investigations
- facility characteristics, such as number of beds and type of ownership
- nursing home staffing levels
- quality measures, which provide information on clinical and physical characteristics of a nursing home's residents

**Nursing Home Compare Inspection Results**

The inspection results section on Nursing Home Compare lists deficiencies from the three most recent Medicare certification surveys (referred to as health surveys on Nursing Home Compare and in this report), as well as those from substantiated complaint investigations conducted in the past 3 years for each nursing home. State survey agencies conduct nursing home surveys on behalf of CMS. Health surveys, which evaluate the quality of care and the services provided by the nursing home, occur on an average of every 12 months but no less frequently than every 15 months. State surveyors also conduct complaint investigations, as necessary, outside of the cycle of health surveys and cite deficiencies, as appropriate.

Nursing Home Compare clusters deficiencies from each of the three health surveys with deficiencies from complaint investigations for an approximate 1-year period. The site describes each deficiency, provides the date that the deficiency was cited and corrected, and lists the scope and severity of the deficiency (see Figure 1). Severity refers to the level of harm, and scope refers to the number of affected residents. Nursing Home Compare also provides definitions for scope and severity (see Appendix A).

FIGURE 1  
Deficiency Information  
Presented on Nursing  
Home Compare

Quality Care Deficiencies			
Inspectors determined that the nursing home failed to:	Date of Correction	Level of Harm	Residents Affected Few->Some-> Many
1. Give each resident care and services to get or keep the highest quality of life possible. (02/24/2003)	03/25/2003	2 = Minimal harm or potential for actual harm Least -> Most <b>1 2 3 4</b>	Few

Deficiency and date cited

Date deficiency was rectified

Severity of deficiency

Scope of deficiency

Source: Nursing Home Compare Web site, Centers for Medicare & Medicaid Services, August 2003

**Nursing Home Compare Inspection Results and OSCAR**

Inspection results on Nursing Home Compare come from CMS's Online Survey Certification and Reporting (OSCAR) system, a database containing survey information for all Medicare- and Medicaid-certified nursing homes. After completion of a health survey or complaint investigation, State surveyors enter inspection results into the

Automated Survey Processing Environment (ASPEN) system. Surveyors use ASPEN to electronically transmit inspection results into OSCAR. According to CMS's State Survey Agency Performance Standards for Fiscal Year 2003, the average time for transmitting data from health surveys and complaint investigations into OSCAR must not exceed 70 calendar days from the last day of the survey.

Nursing Home Compare does not include information for deficiencies that are under dispute and notes this in a disclaimer on the site. Nursing homes can appeal deficiencies from health surveys and complaint investigations through the State survey agency with informal dispute resolution. Any deficiency undergoing this process is not transmitted into OSCAR. When informal dispute resolution concludes, State survey agencies transmit any deficiencies that remain into OSCAR. These deficiencies will then appear on Nursing Home Compare.

CMS updates the inspection results on Nursing Home Compare monthly. At the beginning of each month, data analysts in CMS's Center for Medicaid and State Operations extract data from OSCAR. CMS's Center for Beneficiary Choices, which is responsible for the appearance and content of Nursing Home Compare, then provides the data to its contractor who maintains the Nursing Home Compare Web site. The contractor incorporates the new data into Nursing Home Compare by the end of each month.

#### **Prominence of Nursing Home Compare**

According to CMS officials, about 20 percent of visitors to the main Medicare Web site access Nursing Home Compare, making Nursing Home Compare one of the most frequently visited sections of the Medicare Web site.<sup>2</sup> Nursing Home Compare's popularity likely can be attributed to nationwide promotion of the Web site. In November 2002, CMS placed advertisements in 71 newspapers across all 50 States. CMS also promoted Nursing Home Compare in national television advertisements. The media campaign aimed to increase public awareness of the site as a principal source of nursing home quality information. Prior to the media campaign and launch of the quality measures, Nursing Home Compare received fewer than 100,000 visits per month. In November 2002, Nursing Home Compare received about 400,000 visits.

CMS has used Nursing Home Compare as a model for reporting quality information to consumers on other types of Medicare-certified facilities

and services. Currently, consumers can access Home Health Compare and Dialysis Facility Compare from the Medicare Web site. An initiative to report quality information for hospitals is in progress.

#### **Concerns about Nursing Home Compare**

In February 2002, the House of Representatives' Committee on Government Reform released the report, *HHS 'Nursing Home Compare' Website Has Major Flaws*. The report found that Nursing Home Compare excluded deficiencies from complaint investigations, thus not presenting a complete picture of the nursing home. In May 2002, CMS added deficiencies from complaint investigations to Nursing Home Compare's inspection results section.

In October 2002, the General Accounting Office released the report, *Nursing Homes: Public Reporting of Quality Indicators Has Merit, but National Implementation is Premature*. The report raised concerns about the validity and usefulness of the quality measures posted on Nursing Home Compare and concluded that CMS was prematurely reporting the measures. Furthermore, the report stated that CMS was not adequately prepared to address questions raised by the public concerning the site. In its comments on the report, CMS affirmed its decision to release the quality measures as a means of providing consumer information and public accountability.

#### **This Inspection**

Considering the efforts to increase public awareness of Nursing Home Compare as a tool for consumers, it is essential that the site accurately portray all Medicare- and Medicaid-certified nursing homes. This inspection focuses on the completeness of the Nursing Home Compare Web site, as well as the accuracy of the inspection results section of the site. Determining the completeness of Nursing Home Compare shows whether the site contains all Medicare- and Medicaid-certified nursing homes. Assessing the accuracy of inspection results shows whether Nursing Home Compare contains the inspection results it claims to present, as well as whether it presents consumers with correct and reliable information.

This inspection does not assess the accuracy of the other three categories of information on Nursing Home Compare: facility characteristics, staffing levels, and quality measures.

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## METHODOLOGY

This inspection is based on the Nursing Home Compare database as of April 1, 2003. On this date, Nursing Home Compare included 16,446 Medicare- and Medicaid-certified nursing homes.

To determine the completeness of Nursing Home Compare, we matched provider numbers and addresses of all nursing homes included in Nursing Home Compare with nursing homes included in the Minimum Data Set (MDS) facility file, a demographic data file of nursing homes that submit resident assessments.

To determine whether Nursing Home Compare includes all intended inspection results, as well as the accuracy of the inspection results provided by Nursing Home Compare, we selected a national, simple random sample of 150 nursing homes from Nursing Home Compare. We then requested survey documentation from State survey agencies. Survey documentation consisted of statements of deficiency for health surveys and complaint investigations as well as outcomes from informal dispute resolution, if relevant, for the sampled nursing homes. Our response rate from the State survey agencies was 100 percent. We matched survey documentation to the information presented on Nursing Home Compare for each nursing home. With this information, we assessed whether any health or complaint surveys were missing from Nursing Home Compare. The information we matched for accuracy included dates of surveys, number of deficiencies, and the scope and severity of deficiencies.

We interviewed staff in CMS central and regional offices who work with Nursing Home Compare and survey and certification of nursing homes. We also reviewed documentation relevant to Nursing Home Compare's inspection results, including CMS's State Operations Manual and State Survey Agency Performance Standards for Fiscal Year 2003. Appendix B contains a detailed description of our methodology.

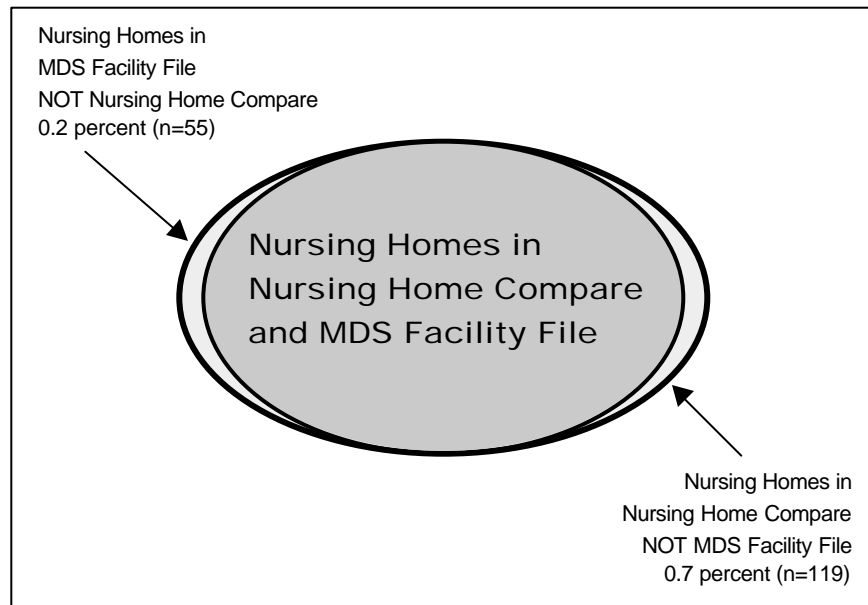
We conducted this inspection in accordance with the *Quality Standards for Inspections* issued by the President's Council on Integrity and Efficiency.

**Nursing Home Compare contains almost all Medicare- and Medicaid- certified nursing homes.**

In order to fully provide consumers with all available options for nursing homes, Nursing Home

Compare must contain all Medicare- and Medicaid-certified nursing homes. Our match of the 16,446 nursing homes in Nursing Home Compare and the MDS facility file showed that Nursing Home Compare included almost all nursing homes (see Figure 2).

FIGURE 2  
Match of Nursing Home Compare database with the MDS facility file



Source: OIG analysis of nursing homes in Nursing Home Compare and the MDS facility file, 2003

In all, less than 1 percent of nursing homes did not appear in both Nursing Home Compare and the MDS facility file. Nursing Home Compare included 119 nursing homes (0.7 percent) that were not found in the MDS facility file over a 5-month period. Nursing Home Compare did not include 55 nursing homes (0.2 percent) included in the MDS facility file. These 55 nursing homes submitted MDS data, yet no evidence of their operation exists in Nursing Home Compare.

A closer look at the 119 nursing homes from Nursing Home Compare not found in the MDS facility file showed that Nursing Home Compare may erroneously include many of these nursing homes. For example, 14 of the 119 nursing homes had not had a health survey in 2 years, though CMS requires nursing homes to be surveyed every 15 months

(107 of the 119 were surveyed within the 2-year period). To determine whether some of the 119 nursing homes might be closed, we contacted a survey agency in 1 State to confirm the operating status of its 9 nursing homes that were in Nursing Home Compare but not the MDS facility file. The State survey agency informed us that seven of the nine nursing homes were closed. The October 2003 update of Nursing Home Compare still included all seven of the closed nursing homes. In addition to the potentially closed nursing homes, six nursing homes had obtained new provider numbers and were listed twice in Nursing Home Compare with both the new and old provider numbers.

**Nineteen percent of nursing homes had one or more surveys missing on Nursing Home Compare.**

Nursing Home Compare informs consumers that the inspection results section includes

deficiencies from the three most recent health surveys as well as from recent substantiated complaint investigations.<sup>3</sup> State survey agencies have 70 days after the last day of a survey to transmit survey results into OSCAR. However, Nursing Home Compare lacked one or more of the three most recent health surveys and/or complaint investigations that should have been there for 19 percent of nursing homes.<sup>4</sup> These surveys and investigations included 206 deficiencies unaccounted for on Nursing Home Compare. Nursing home Compare lacked the most recent health survey for 7 percent of nursing homes, meaning that it instead provided older information.

If Nursing Home Compare does not reflect the most recent inspection results, consumers may be misled by the information presented. For example, the 2 most recent surveys occurring in 2002 and 2000 for 1 nursing home yielded 40 and 14 deficiencies, respectively. However, Nursing Home Compare's inspection results show three older surveys for this nursing home. The three surveys on Nursing Home Compare occurred in 1999, 1998, and 1997, and yielded 18, 9, and 2 deficiencies, respectively.

Furthermore, Nursing Home Compare lacked complaint investigations for 8 percent of nursing homes. A complaint investigation on Nursing Home Compare provides an additional level of detail about the performance of a nursing home, but when it is missing, the nursing home erroneously appears more favorable to the consumer.

Late data entry by State survey agencies may explain most of the missing health surveys. As the majority of the missing health surveys



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and complaint investigations could be found in Nursing Home Compare by the latter part of 2003, State survey agencies apparently exceeded the 70-day time period required to enter results into OSCAR. However, only the recent missing health surveys and complaint investigations can be attributed to late data entry, as older health surveys and complaint investigations were still missing. CMS evaluates the accuracy and timeliness of data entry by State survey agencies semiannually.<sup>5</sup> However, this evaluation is a retrospective review, so missing surveys could go undetected for as long as 6 months.

**Inspection results on Nursing Home Compare are largely accurate, but some areas of concern exist.**

If State survey documentation exactly matched the inspection results on Nursing Home

Compare for our sample of 150 nursing homes, we considered that information on the site to be accurate. Five different types of inaccuracies existed between Nursing Home Compare inspection results and State survey documentation. Table 1 shows the number and percentage of each type of inaccuracy. As some nursing homes had more than one inaccuracy between Nursing Home Compare and State survey documentation, percentages listed do not total 100 percent. Below, we discuss Nursing Home Compare’s accurate inspection results, as well as the the two most significant types of inaccuracies.

TABLE 1  
Number and Percentage  
of Nursing Homes with  
Inaccuracies between  
Nursing Home Compare  
and State Survey  
Documentation (n=150)

Type of Inaccuracy	Number of Nursing Homes with Inaccuracies	Percent of Nursing Homes with Inaccuracies
Deficiencies incorrectly posted on Nursing Home Compare	23	15%
Deficiencies missing from Nursing Home Compare	16	11%
Incorrect scope and/or severity score	12	8%
Incorrect deficiency date	6	4%
Incorrect deficiency description	4	3%

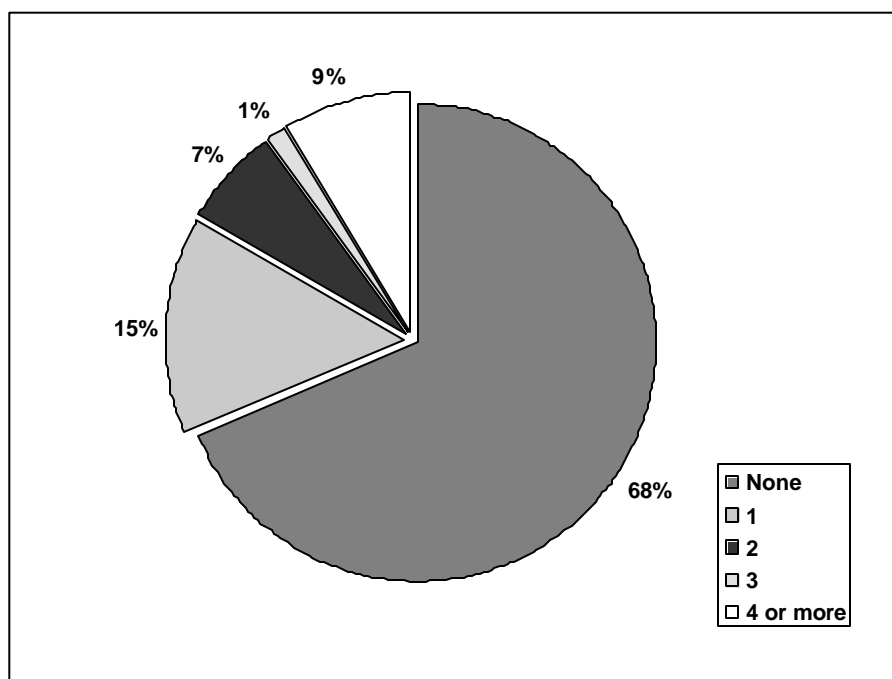
Source: OIG analysis of Nursing Home Compare inspection results and State survey documentation, 2003

## FINDINGS

**Sixty-eight percent of nursing homes had Nursing Home Compare inspection results that exactly matched State survey documentation.**

Accurate reporting of this information allows the consumer to confidently gather detailed information about the type of deficiency, the level of severity, and scope of the deficiency. It gives a picture of the timing of surveys and substantiated complaint investigations, and the deficiencies from each. For 68 percent of nursing homes, Nursing Home Compare accurately reported inspection results, based on a match to State survey documentation (see Figure 3).

FIGURE 3  
Percent of nursing homes by number of inaccuracies



Source: OIG analysis of Nursing Home Compare inspection results and State survey documentation, 2003

Nursing homes with a low number of deficiencies tended to be accurately presented on Nursing Home Compare. Nursing homes with no inaccuracies between State survey documentation and Nursing Home Compare had significantly fewer deficiencies than nursing homes with inaccuracies. Across all 3 survey periods on Nursing Home Compare, nursing homes without inaccuracies had an average of 17 deficiencies. Nursing homes with inaccuracies averaged 35 deficiencies.<sup>6</sup>

**Eleven percent of nursing homes had one or more deficiencies missing from their inspection results on Nursing Home Compare.**

These represent instances where Nursing Home Compare excluded one or more deficiencies from a nursing home's health survey or complaint investigation, based on State survey documentation. On average, Nursing Home Compare lacked two deficiencies for each of these nursing homes. Thus, 11 percent of nursing homes appeared to consumers to have fewer deficiencies than actually existed.

Of the deficiencies missing on Nursing Home Compare, 43 percent had been unsuccessfully appealed through informal dispute resolution, thus were not eliminated by the process. While undergoing informal dispute resolution, a deficiency is withheld from OSCAR and not provided on Nursing Home Compare. If deficiencies remain after informal dispute resolution, it is the responsibility of the State survey agency to promptly update OSCAR. If the deficiency is not entered into OSCAR, the deficiency cannot be presented on Nursing Home Compare.

For 1 nursing home, Nursing Home Compare shows 13 deficiencies for a nursing home's most recent health survey. However, the nursing home's survey results do not show an additional 11 deficiencies that were unsuccessfully appealed through informal dispute resolution. Two of the missing 11 deficiencies indicate citations for actual harm, which likely would be a caution to a consumer. CMS ranks deficiencies cited as actual harm the second-highest level of deficiency severity.

CMS is unlikely to become aware of these inaccuracies unless nursing homes report them, which is also unlikely, since these inaccuracies portray nursing homes as better than they are. Even if CMS does become aware of these inaccuracies, it does not track reports of inaccuracies to determine whether they are recertified by State survey agencies. CMS may also find these inaccuracies through its semiannual evaluation of data accuracy and timeliness. However, CMS's review looks at only a random sample of surveys conducted during the fiscal year and permits an overall accuracy rate of 85 percent.<sup>7</sup>

**Nursing Home Compare presents deficiencies not found on State survey documentation for 15 percent of nursing homes.**

Deficiencies appeared on Nursing Home Compare that State survey documentation did not substantiate for 23 nursing homes we reviewed. These false positive deficiencies make these nursing homes appear to consumers to have more deficiencies than actually exist. In all, 63 false positive deficiencies exist, with about half coming from just 4 nursing

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homes. For 1 of the 4 nursing homes, 10 deficiencies from a health survey are duplicated on Nursing Home Compare for a date 2 months after the original survey. Survey documentation exists for these deficiencies for just one of the dates. Thus, Nursing Home Compare's inspection results for this nursing home appear worse than the nursing home actually is.

Of the 23 nursing homes with false positives, 8 had 1 deficiency appearing on Nursing Home Compare that had been successfully appealed through informal dispute resolution. For these eight nursing homes, State survey agencies had incorrectly transmitted deficiencies under dispute into OSCAR, and then did not remove the deficiencies when resolved by informal dispute resolution.

If nursing homes detect inaccuracies within their inspection results, Nursing Home Compare directs them to contact their respective State survey agency to correct the information in OSCAR. CMS does not track the number of such reports, the types of inaccuracies reported, or whether the State survey agency rectified the inaccuracies.

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Overall, Nursing Home Compare's inspection results provide consumers with a valuable resource on the past performance of Medicare- and Medicaid- certified nursing homes. However, we found some inaccuracies between Nursing Home Compare and State survey reports that deserve attention, and suggest that CMS could do more to ensure that consumers receive the most accurate data possible when choosing a nursing home.

**CMS should enhance Nursing Home Compare by:**

**Requiring State agencies to verify that the most recent inspection results are in CMS databases.** Timely and accurate inspection results on Nursing Home Compare depend on the transmission of survey data by State surveyors into OSCAR, the CMS database containing survey information. However, Nursing Home Compare did not include some cited deficiencies as well as entire surveys. In some cases, Nursing Home Compare did not reflect changes in deficiencies amended through informal dispute resolution. If State survey agencies do not transmit data into OSCAR, then changes will not be reflected on Nursing Home Compare.

To assure that data have been promptly transmitted into OSCAR, State agencies should verify the most recent inspection results in OSCAR with those in ASPEN, the system used for survey data entry and transmission to OSCAR. This verification can be included as an offsite survey preparation task. Currently, CMS's offsite survey preparation requires state surveyors to review an OSCAR report of the nursing home, which contains deficiencies from the past four health surveys and complaint investigations. Surveyors can use the same OSCAR report to compare deficiencies from the most recent health survey and complaint investigations with those on ASPEN.

To target this verification, CMS could direct State survey agencies to begin this activity with nursing homes that have the most deficiencies. As we found, the more deficiencies a nursing home had, the more likely there were inaccuracies in its inspection results on Nursing Home Compare.

**Establishing a single point of contact for reporting Nursing Home Compare inaccuracies.** Given our finding that Nursing Home Compare presents deficiencies not supported by the State survey report for 15 percent of nursing homes, these nursing homes may be incorrectly

## R E C O M M E N D A T I O N S

portrayed as having deficiencies not found to exist. Nursing Home Compare advises nursing homes that discover incorrect information to report it to their State survey agencies. However, CMS does not track these reports of inaccuracies. Hence, it is unable to assess the number of inaccuracies reported, or if the State survey agencies made the corrections. By having a single point of contact within CMS for reporting inaccuracies, CMS would be able to track and follow up on information that is reported to be inaccurate. Contact information for this individual (either a phone number or an electronic mail address) should be included on the Nursing Home Compare Web site.

### **Agency Comments**

CMS agreed with our first recommendation to require State agencies to verify that the most recent inspection results are in Nursing Home Compare, citing it has performance standards under development.

CMS disagreed with our second recommendation to establish a single point of contact for reporting Nursing Home Compare inaccuracies. The agency commented that “multiple CMS components are involved in providing Nursing Home Compare data on the Web site”, making a single point of contact impractical. CMS, however, will consider adding regional office contact information to Nursing Home Compare to facilitate corrections to the Web site. We continue to believe that a single point of contact for reporting inaccuracies would be the most effective solution. However, we appreciate CMS’s consideration of adding regional office contact information to Nursing Home Compare, and urge CMS to follow through on this idea.

CMS also made a technical comment concerning its policy for handling duplicate deficiencies. CMS noted that its Web site contractor suppresses duplicate deficiencies if a deficiency is cited on both a complaint investigation and a health survey within 15 days of each other. CMS officials informed us of this policy during this inspection; thus, we did not count duplicate deficiencies within this time frame as inaccuracies. For the full text of CMS’s comments, see Appendix C.

Nursing Home Compare Definitions of Scope and Severity of Deficiencies

Table 1: Nursing Home Compare Severity of Deficiency Scale	
Level of Harm	Severity of Deficiency
1	<b>Potential for minimal harm</b> - causing no more than a minor negative impact on the resident.
2	<b>Minimal harm or potential for actual harm</b> - results in minimal discomfort to the resident or has the potential (not yet realized) to negatively affect the resident's ability to achieve his/her highest functional status.
3	<b>Actual harm</b> - results in a negative outcome that has negatively affected the resident's ability to achieve his/her highest functional status.
4	<b>Immediate jeopardy</b> - places the resident in immediate jeopardy as it has caused (or is likely to cause) serious injury, harm, impairment, or death to a resident receiving care in the nursing home. Immediate corrective action is necessary when this deficiency is identified.

Source: Nursing Home Compare Web site, Centers for Medicare & Medicaid Services, August 2003

Table 2: Nursing Home Compare Scope of Deficiency Scale	
Residents affected	Scope of Deficiency
Few (Isolated)	Deficiency affects one or the fewest number of residents, staff, or occurrences.
Some (Pattern)	Deficiency affects more than a limited number of residents, staff, or occurrences.
Many (Widespread)	Deficiency is found to be widespread throughout the facility and/or has the potential to affect a large portion or all the residents.

Source: Nursing Home Compare Web site, Centers for Medicare & Medicaid Services, August 2003

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## METHODOLOGY

For this report, we used inspection results data for nursing homes included in Nursing Home Compare as of April 1, 2003. Nursing Home Compare included 16,446 nursing homes on this date.

### **Nursing Home Compare Completeness**

To determine the extent to which Nursing Home Compare includes all Medicare- and Medicaid-certified nursing homes, we matched the Nursing Home Compare database with the March 2003 Minimum Data Set (MDS) facility file, a demographic data file of nursing homes that submit resident assessments. We used the MDS facility file to match with Nursing Home Compare since CMS requires all Medicare- and Medicaid-certified nursing homes to report resident assessments. Using SAS® statistical software, we matched provider numbers, names, and addresses from both data sets to determine whether nursing homes in Nursing Home Compare were also located in the MDS facility file. We also reversed our match to determine whether nursing homes located in the MDS facility file were found on Nursing Home Compare.

Since CMS composes the MDS facility file monthly, it was possible that some of these nursing homes were in stages of closure or termination from Medicare. Therefore, these nursing homes might not be included in the MDS facility file for other months. For this reason, we matched nursing homes not found in the March 2003 MDS facility file with those in the February, April, May, and June 2003 MDS facility files. We also checked Nursing Home Compare in September 2003 to determine whether the site still included the unmatched nursing homes.

To further investigate whether nursing homes not found in both databases remained in operation, we used various methods. These included contacting one State survey agency, rechecking nursing homes in the May, September, and October Nursing Home Compare database, Internet searches, and phone calls to nursing homes.

### **Nursing Home Compare Accuracy**

To determine whether Nursing Home Compare includes all intended inspection results, as well as to determine the accuracy of nursing home inspection results provided on Nursing Home Compare, we matched inspection results for a sample of nursing homes in Nursing Home Compare with survey documentation supplied by State survey agencies.

We selected a simple random sample of 150 nursing homes from the 16,446 included in Nursing Home Compare as of April 1, 2003. The



sample included nursing homes from 39 States, with a range of 1 to 20 nursing homes per State. Our sample produces an estimate of the proportion of cases in which there is an inaccuracy between State survey documentation and Nursing Home Compare. This estimate is within 8 percentage points of the actual inaccuracy rate at the 95 percent confidence level.

For each State represented in our sample, we sent a letter to the State's director of nursing home certification requesting survey documentation for each sampled nursing home. Before sending the letter, we solicited comments from CMS central office officials, CMS regional office surveyors, and a State surveyor on its content and clarity. We requested the following survey documentation for each sampled nursing home in the State.

- statements of deficiencies (CMS-2567 forms) from certification (health) surveys, conducted between January 1, 1999 and March 31, 2003, as well as documentation of the completed corresponding life safety code survey
- statements of deficiencies (CMS-2567 forms) from complaint investigations, conducted between December 1, 1999 and February 28, 2003
- copies of letters from nursing homes requesting informal dispute resolution for any deficiencies cited from the health surveys and complaint investigations listed above, as well as documentation of the informal dispute resolution outcome

All States in our sample sent requested documentation for a 100 percent response rate. However, two States could not locate some information needed for our analysis for a total of four nursing homes. This information included one health survey each for two nursing homes, three complaint investigations for one nursing home, and two health surveys for one nursing home. Two of the missing health surveys were from 1998, and one was from 1997. In the instances where States could not locate information, we did not score Nursing Home Compare as inaccurate.

We allowed State survey agencies to either mail paper copies of documentation or electronically mail files with the documentation. Of the 39 States represented in our sample, 22 mailed paper copies of all documentation, 10 mailed files electronically, and 7 sent us both paper copies and electronic files. When necessary, we contacted States by

telephone or electronic mail and requested clarifications or additional information.

To perform the comparison between the State survey documentation and Nursing Home Compare, we downloaded and printed the complete inspection information section from Nursing Home Compare in April 2003 and matched Nursing Home Compare's information with the State documentation we received. We verified the following information:

- inclusion of the three most recent health surveys and all substantiated complaint investigations occurring between December 1, 1999 and February 28, 2003
- dates of health surveys and complaint investigations
- number of deficiencies per health survey and complaint investigation
- descriptions of deficiencies found during each survey or complaint investigation
- description of severity for each deficiency
- description of affected residents (scope) for each deficiency.

We also reviewed informal dispute resolution documentation to determine whether relevant deficiencies presented on Nursing Home Compare reflected the outcome of informal dispute resolution.

To account for the time between the end of a survey and the transmission of its data into Nursing Home Compare, we employed criteria from the Fiscal Year 2003 CMS State Performance Guidelines. These guidelines require State agencies to enter results in the Online Survey Certification and Reporting (OSCAR) system within 70 days of the last day of the health survey or complaint investigation. Hence, we do not count any health survey or complaint investigation occurring after January 10, 2003 as missing from Nursing Home Compare.

When information from State survey documentation was not accurately reflected on Nursing Home Compare, we recorded the inaccuracies on paper forms and used Microsoft Access and SAS® statistical software to analyze the data.

The table below presents point estimates and confidence intervals at the 95 percent confidence level for key figures presented in the findings section.

	Point Estimate	95 percent confidence interval
Percent of nursing homes with no inaccuracies	68%	+/- 7.5%
Percent of nursing homes missing one or more surveys on Nursing Home Compare	19%	+/- 6.3%
Percent of nursing homes with deficiencies incorrectly posted on Nursing Home Compare	15%	+/- 5.7%
Percent of nursing homes with deficiencies missing from Nursing Home Compare	11%	+/- 5.0%
Percent of nursing homes with an incorrect scope and/or severity score	8%	+/- 4.3%
Percent of nursing homes with an incorrect deficiency date	4%	+/- 3.1%
Percent of nursing homes with an incorrect deficiency description	3%	+/- 2.7%

**Interviews with CMS staff**

We interviewed CMS officials to learn about the process by which information from OSCAR is transmitted onto Nursing Home Compare, and the data systems involved. These interviews included staff from the Center for Beneficiary Choices, and Center for Medicaid and State Operations in CMS's central office, as well as CMS regional office staff.

**Document reviews**

We reviewed CMS documents that provide procedures or guidelines relevant to Nursing Home Compare. These documents include the State Operations Manual and the State Survey Agency Performance Standards for Fiscal Year 2003.

▶ A P P E N D I X ~ C

Agency Comments



DEPARTMENT OF HEALTH & HUMAN SERVICES

Centers for Medicare & Medicaid Services

Administrator  
Washington, DC 20201

**DATE:** MAY 28 2004

**TO:** Dara Corrigan  
Acting Principal Deputy Inspector General

**FROM:** Mark B. McClellan, M.D., Ph.D.  
Administrator *MM*

**SUBJECT:** Office of Inspector General (OIG) Draft Report: "Inspection Results on Nursing Home Compare: Completeness and Accuracy," (OEI-01-03-00130)

IG	_____
EAIG	_____
PDIG	_____
DIG-AS	_____
DIG-EI	_____
DIG-OI	_____
DIG-MP	_____
OCIG	_____
ExecSec	_____
Date Sent	6-1

OFFICE OF INSPECTOR GENERAL  
MAY 28 11 33 AM '04

Thank you for the opportunity to review and comment on the above-referenced draft report. The Nursing Home Compare Web site is a key part of the Centers for Medicare & Medicaid Services' (CMS) nursing home quality initiative and is the most frequently accessed site on Medicare.gov. The primary purpose of this tool is to provide detailed information about the past performance of every Medicare and Medicaid certified nursing home in the country. The quality measures found on the Nursing Home Compare Web site have four intended purposes:

- to give information about the care at nursing homes in order to help families and friends choose a nursing home for themselves or others;
- to provide information about the care at nursing homes where family members or friends already live;
- to get families and friends to talk to nursing home staff about the quality of care; and
- to give data to the nursing home to help them with their quality improvement efforts.

The CMS is constantly working to improve the timeliness and accuracy of the data reported on Nursing Home Compare. As such, we are strengthening state performance standards to include measures of the timeliness of data entry. We are also establishing new points of contact in CMS' regional offices so that Web site users can submit data corrections to the appropriate CMS person.

We appreciate the effort that went into this report and the opportunity to review and comment on the issues it raises. We look forward to working with OIG on this and other nursing home issues. Our response to the audit recommendations follows.

OIG Recommendation

The CMS should enhance Nursing Home Compare by requiring state agencies to verify that the most recent inspection results are in CMS databases.

CMS Response

We concur. CMS is developing a number of state performance standards that directly assess the timeliness with which states conduct surveys and then enter those surveys into the Online Survey

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Certification and Reporting/Certification and Survey Provider Enforcement Report (OSCAR/CASPER) system, our system for collecting and reporting survey data. We also propose to issue a survey and certification letter directing states to periodically review a sample of the survey data contained in OSCAR or CASPER to make sure that the surveys are the most current available. We are also developing Web-based management information tools, such as Survey and Certification Providing Data Quickly, to help states more quickly identify providers whose survey data are out of date.

OIG Recommendation

The CMS should enhance Nursing Home Compare by establishing a single point of contact for reporting Nursing Home Compare inaccuracies.

CMS Response

We do not concur. While we agree that enhancements should be made to the Nursing Home Compare data, multiple CMS components are involved in providing Nursing Home Compare data on the Web site making it impractical to have a “single point of contact for reporting discrepancies on the Web site.” The individual would need to contact the Regional Office OSCAR/ASPEN Coordinator, who in turn would need to contact the State Agency OSCAR/ASPEN Coordinator to resolve any discrepancy. CMS will consider adding the Regional Office OSCAR/ASPEN Coordinator information to the Contact Information in the search-results section on Nursing Home Compare to facilitate making corrections to the Web site contents.

Attachment

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Technical Comment

- Page i, “Inspection results on Nursing Home Compare are largely accurate, but 11 percent of nursing homes had 1 or more deficiencies missing from their inspection results, and Nursing Home Compare inaccurately presents deficiencies not found on state survey documentation for 15 percent of nursing homes.”

The largest source of “missing deficiency data” arises from the removal of duplicate deficiency tags. States often enter identical survey findings into both standard and complaint survey records. If a complaint survey is conducted within 15 days of a health survey and there are duplicate deficiencies cited (i.e., F381 on both complaint and health survey), the Web site contractor has been instructed to report that deficiency only once on Nursing Home Compare. To report it twice was found to be confusing to the user and the nursing home providers. These data are therefore not really missing and to include them on the Web site display would be misleading.



## A C K N O W L E D G E M E N T S

This report was prepared under the direction of Mark R. Yessian, Ph.D., Regional Inspector General for Evaluation and Inspections in the Boston Regional Office, and Joyce M. Greenleaf, MBA, Assistant Regional Inspector General. Other principal Office of Evaluation and Inspections staff who contributed include:

Maria E. Maddaloni, *Project Leader*

China D. Eng, *Program Analyst*

Baltimore:

Sandy Khoury, *Program Specialist*

Scott Horning, *Program Analyst*

Barbara Tedesco, *Mathematical Statistician*

▶ E N D N O T E S

<sup>1</sup> The Nursing Home Compare website can be accessed at <http://www.medicare.gov/NHCompare/home.asp>.

<sup>2</sup> The numbers presented show overall visits to Nursing Home Compare. CMS does not collect information that could be used to identify a visitor to its Web sites. Hence, CMS is not able to determine the number of unique visitors to Nursing Home Compare.

<sup>3</sup> Nursing Home Compare typically presents deficiencies from complaint investigations for about a 2-year period. For the data used in this inspection, Nursing Home Compare included deficiencies from complaint investigations between December 1, 1999 and February 28, 2003.

<sup>4</sup> Fiscal Year 2003 State Performance Review Protocol Guidance, Centers for Medicare & Medicaid Services, May 2003, pp. 41-48.

<sup>5</sup> Fiscal Year 2003 State Performance Review Protocol Guidance, Centers for Medicare & Medicaid Services, May 2003, pp. 41-48.

<sup>6</sup> A T-test found a statistically significant difference between the mean number of deficiencies for nursing homes with inaccuracies and for nursing homes with no inaccuracies at the 95 percent confidence level.

Average number of deficiencies	
Sample (n=150)	22
Nursing homes with no inaccuracies on Nursing Home Compare (n=103)	16
Nursing homes with inaccuracies on Nursing Home Compare (n=47)	35
T= -4.94	Degrees of freedom=57.6

<sup>7</sup> Fiscal Year 2003 State Performance Review Protocol Guidance, Centers for Medicare & Medicaid Services, May 2003, pp. 44-45.