STATEMENT OF
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BEFORE THE
COMMITTEE ON VETERANS AFFAIRS
U.S. HOUSE OF REPRESENATIVES

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Mr. Chairman and Members of the Committee: I am pleased to be here this morning to discuss Milliman's role in the development of the Department of Veterans Affairs' (VA's) actuarial health care demand model. Mr. Chairman, if I may I would like to present a summary of my testimony and submit the longer version for the record.

Background

My name is Kathi Patterson and I am a principal and consulting actuary with Milliman, an international firm of actuaries and consultants. Milliman has been evaluating financial risk for clients since 1947. Our firm is broadly acknowledged to be the leading consulting firm to health care insurers and providers. Health care utilization and expenditure projections are at the core of the actuarial consulting that we, as health actuaries, provide to our clients. As a firm, we have served thousands of clients in the area of health care modeling, each effort with specific needs, characteristics, and applications.

Our health care clients consist of the majority of the health insurers in the nation, including Blue Cross Blue Shield plans, HMOs, and health insurance companies. In addition, our consultants provide cost modeling services to many health care providers, including hospitals, physician groups, pharmacy benefit managers, and other provider organizations. Our firm contracts with a number of

governmental agencies to assist them with health care cost forecasting, including state Medicaid programs, state mental health agencies, state employee plans, state insurance departments, numerous county and municipal entities, and other federal agencies, such as Department of Defense and Centers for Medicaid & Medicare Services.

In addition to our direct client work, we have remained committed to conducting front-line industry research, and developing and maintaining a series of consulting tools that have shaped the way we measure health care costs and efficiency. One such tool that is integral to VA's actuarial health care demand model, referred to as the VHA Enrollee Health Care Demand Model, is our Health Cost Guidelines© (HCG) series, which was launched almost 50 years ago. Over the years the HCGs (now published in seven volumes) have become an industry standard and are used in-house by more than 90 insurers in understanding or estimating expected health care insurance claim costs. Among the critical data recorded in the guidelines are utilization rates for specific health care services and variations in service costs observed within each state across the country. Traditional health carriers and managed care organizations use this information in product pricing. It also provides utilization benchmarks for managed risk arrangements.

Our firm also publishes the Health Cost Index® database, which provides measurements of national and regional monthly rates of increase in health care provider net revenues, capturing the impact of price, utilization, and mix/intensity changes in providing health care. The Index's database contains indices for hospital inpatient, hospital outpatient, physician, and prescription drug benefits. The research that goes into producing this publication has been a valuable resource while working with VHA to establish the trend rates used in the VA projection model.

VHA was in need of the expertise to develop a demand model. As actuarial consultants, we are frequently called upon to design and implement projection models for our clients, particularly when those models include elements of financial risk. Public and private health systems, even those with

health actuaries on their staff, frequently use Milliman actuaries for their broad experience base and access to extensive research and data. A large consulting firm, such as Milliman, offers an extensive range of experts who specialize in all aspects of health care financial risk. In addition, an outside actuarial firm offers clients an external perspective deemed valuable to the client and its actuaries.

I have 19 years of health actuarial experience and I have been consulting with Milliman for the past 10 years. I am a Fellow in the Society of Actuaries and a member of the Academy of Actuaries. I have been involved with VHA as a consultant since 1996 when they first began exploring ideas on how to measure the impact of eligibility reform legislation. Moving from an inpatient-based system to a comprehensive health care network, Milliman and VA determined that historical costs were not necessarily appropriate to use for projecting future demands on the VA health care system. Until March of this year Milliman worked as a subcontractor to develop a health care demand projection model for VHA. As of March 2005, Milliman was awarded a direct contract with VHA to provide continued support for this model.

Over the years, VA and Milliman have developed a strong partnership. Milliman brings specialized expertise, access to extensive amounts of data, and first rate research to the modeling effort. VA experts provide valuable input to the majority of the individual analyses used to develop the model assumptions. In addition, VA experience data is incorporated into many of the analyses. This partnership of experts and data from both VA and Milliman is a powerful combination that provides VA with the best resources to develop an outstanding model.

General Health Care Projection Modeling Concepts

Traditionally, VHA developed expenditure forecasts based on trended historical expenditures. With the implementation of Eligibility Reform, the evolving VA health care system created the need for a more flexible and comprehensive enrollment, utilization, and expenditure projection model. Under eligibility reform, veterans, with some exceptions, are required to enroll in the VA

health care system in order to receive health care services. The previous patient-based system was transformed into an enrollee-based system, similar to existing private and public sector health plans. Once enrolled, VA takes on the responsibility for providing the health care services requested by enrollees. Health plans/insurers have been dealing with the task of pricing their member-(enrollee-) based products since their inception and Milliman health actuaries have played a major role in developing the projection models needed to accomplish this task.

Generally, in an enrollee-based health care system, the carrier (in this case VHA) is financially responsible (except for any cost sharing requirements) for providing any covered health care services requested by the enrollee. Therefore, in order to estimate the expected future costs of the system, health care service utilization must be modeled for each covered enrollee, as well as the expected costs for providing each of those services. Within the health care system it is understood that some enrollees will not require any health care services, some will require low or medium cost services and a few will require very high cost services during any given year. Certain enrollee characteristics can be used to help predict these future health care needs, such as age and gender. The general concepts for modeling health care services and costs for an enrollee based health care system are outlined below.

Concept 1: Each enrollee in a health care system has a unique health care profile

Concept 2: Individual enrollee health care profiles change over time

Concept 3: New enrollees are continually entering and current enrollees are continually leaving (death or choosing another system such as Medicare) the health care system

Concept 4: A health care system is made up of all their enrollees with their respective health care profiles

Concept 5: A health care system can change policies (benefits, eligibility, delivery system, cost sharing, etc.)

Concept 6: VHA is a health care system

Concepts 1 through 5 must be considered when modeling the costs for a health care system because health care systems are not static. Each of these general modeling concepts are applicable to VHA, which is a dynamic health care system. For concept 1, the typical health care profile of a veteran patient of the VHA health care system prior to Eligibility Reform is different from the typical health care profile of today's veteran enrollee. The health care profiles of veteran patients and enrollees changes over time (Concept 2) due to such things as aging, life style, medical advances, etc. Concept 3 relates to the fact that a different mix of veterans was coming to VHA for services prior to eligibility reform than is coming today. Concept 4 refers to patients of VHA prior to eligibility reform and as well as veteran enrollees today. Policy changes under Concept 5 could impact the entire health care system.

VHA is a dynamic health care system, therefore, it is appropriate to use generally accepted health care modeling techniques to forecast future health care expenditures. Historical budget forecasting methodologies previously used by VHA have extreme limitations in a dynamic environment. We have worked very closely with VHA to develop a demand model, employing the above modeling concepts, that reflects the unique characteristics of the veteran enrolled population, the unique characteristics of the VHA health care system, and other exogenous variables such as anticipated medical advances, inflation, technology, etc.

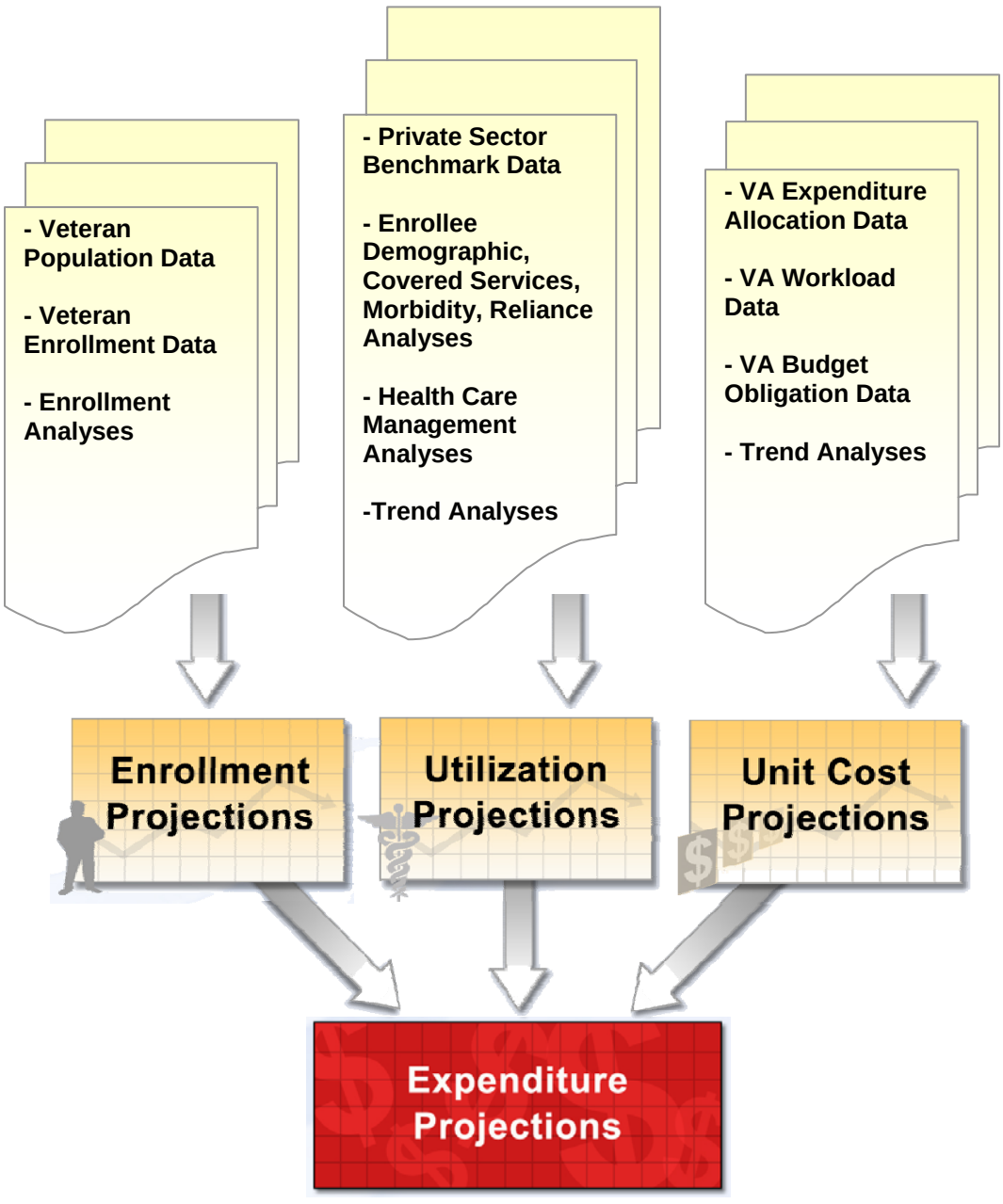
The resulting model is a set of very detailed health care utilization and expenditure projection models. We model multiple health care services separately for many different enrollee profiles (age, gender, priority level, etc.) and geographic regions. This produces over 40,000 individual utilization and expenditure models for each projection year. Given this level of detail, policy changes can be readily measured with this type of model.

Enrollment is projected using veteran population estimates, current enrollment levels, historical rates of enrollment, and enrollee mortality

assumptions. The expenditure model, in general, begins with benchmarks that are adjusted to reflect the age, gender, reliance, and morbidity mix of the projected veteran enrollee population. They are also adjusted to reflect the VA benefit package, any enrollee cost-sharing, health care practice patterns specific to the VHA health care system and VA unit costs. The model assumptions are developed using both VA and non-VA data. For example, reliance, which measures the portion of an enrollee's total health care demand that is provided by VHA, is estimated using both VA and CMS data.

Annually, the model is updated and fine-tuned to ensure that the model reflects, as best possible, actual VHA expenditures. Milliman and VHA regularly monitor model projections with actual outcomes. In addition, Milliman conducts an extensive model validation study. The results of this study identify any strengths and weaknesses of the model and provide information about how the model can be improved. These studies are also used to evaluate the impact of proposed or implemented model enhancements. The following graphic depicts the modeling process.

VA Enrollee Health Care Projection Model Overview



The expenditure projections produced by the model are used as the basis for the VHA budget process. The model assumptions can be modified to reflect various policy scenarios to measure the estimated impacts of these policies on

projected enrollment, patients, workload, expenditure and cost-sharing revenue. The model also has the functionality to measure impacts of other factors such as changing economic conditions, future military conflicts, and policy changes impacting other private or public health care systems.

Conclusion

Mr. Chairman, in closing, I believe that the VHA Enrollee Health Care Demand Model is based upon sound health care projection modeling techniques and is appropriate for use in the budget formulation process. This completes my statement. I will be happy to respond to questions from the Committee.