REPORT OF THE
JOINT COMMISSION ON HEALTH CARE

Opportunities for Early Identification and Preventive Care of Chronic Diseases [SJR 325 (2009)]

TO THE GOVERNOR AND
THE GENERAL ASSEMBLY OF VIRGINIA

SENATE DOCUMENT NO. 4

COMMONWEALTH OF VIRGINIA
RICHMOND
2010

COMMONWEALTH of VIRGINIA

Joint Commission on Health Care

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October 6, 2010

The Honorable Robert F. McDonnell
Governor of Virginia
Patrick Henry Building, 3rd Floor
1111 East Broad Street
Richmond, Virginia 23219

Members of the Virginia General Assembly
General Assembly Building
Richmond, Virginia 23219

Dear Governor McDonnell and Members of the General Assembly:

The 2009 General Assembly in Senate Joint Resolution 325 requested a study by the Joint Commission on Health Care of approaches to prevent, identify, and treat chronic diseases including how "Virginia can address fragmentation of services across the health care delivery system...and identity opportunities for providing more coordinated care management for individuals with multiple chronic diseases."

The Joint Commission report, completed in response to SJR 325, is enclosed for your review and consideration.

Respectfully submitted,

Benjamin L. Cline

Code of Virginia § 30-168.

The Joint Commission on Health Care (the Commission) is established in the legislative branch of state government. The purpose of the Commission is to study, report and make recommendations on all areas of health care provision, regulation, insurance, liability, licensing, and delivery of services. In so doing, the Commission shall endeavor to ensure that the Commonwealth as provider, financier, and regulator adopts the most cost-effective and efficacious means of delivery of health care services so that the greatest number of Virginians receive quality health care. Further, the Commission shall encourage the development of uniform policies and services to ensure the availability of quality, affordable and accessible health services and provide a forum for continuing the review and study of programs and services.

The Commission may make recommendations and coordinate the proposals and recommendations of all commissions and agencies as to legislation affecting the provision and delivery of health care.

For the purposes of this chapter, "health care" shall include behavioral health care.

Joint Commission on Health Care 2009 Membership

Chairman
The Honorable R. Edward Houck

Vice-Chairman
The Honorable Phillip A. Hamilton

Senate of Virginia
The Honorable George L. Barker
The Honorable Harry B. Blevins
The Honorable L. Louise Lucas
The Honorable Ralph S. Northam
The Honorable Linda T. Puller
The Honorable Patricia S. Ticer
The Honorable William C. Wampler, Jr.

Virginia House of Delegates
The Honorable Clifford L. Athey, Jr.
The Honorable Robert H. Brink
The Honorable David L. Bulova
The Honorable Benjamin L. Cline
The Honorable Rosalyn R. Dance
The Honorable Algie T. Howell, Jr.
The Honorable Harvey B. Morgan
The Honorable David A. Nutter
The Honorable John M. O'Bannon, III

The Honorable Marilyn B. Tavenner
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Preface

Senate Joint Resolution 325, introduced by Senator Houck in 2009, directed the Joint Commission on Health Care (JCHC) to:

> "(i) examine clinical and other studies concerning the manner in which early identification and preventive care can be utilized to halt or slow the evolution of such conditions as diabetes, hypertension, kidney disease, obesity, and pneumonia into chronic and terminal conditions;
>
> (ii) assess the means by which Virginia can address fragmentation of services across the health delivery system and the patient's community in order to enhance early identification and preventive care and care management for chronic disease, and to identify opportunities for providing more coordinated care management for individuals with multiple chronic diseases; and
>
> (iii) estimate the fiscal impact on the Commonwealth and private payers from such strategies."

Chronic diseases (such as heart disease, diabetes, asthma, chronic obstructive pulmonary disease, and kidney disease) are a leading cause of adult disability and account for 70 percent of all deaths in the United States. In addition, chronic diseases accounted for more than 75 percent of the nation's $2 trillion in recent health care expenditures. Chronic disease expenses are typically driven by reoccurring acute care events such as emergency room (ER) visits and hospitalizations or costly inpatient and outpatient treatment plans. Individuals with chronic conditions typically have multiple health care providers, treatment plans, and prescriptions written by different physicians often with no coordination of the medical care.

There is a spectrum of potential approaches the Commonwealth could take to address chronic disease and the fragmentation of the health care system. This spectrum ranges from disease management programs which base care coordination around the identification of specific diseases to programs that focus on all of the person's needs and the available service delivery systems to address those needs.

Based on the study findings, JCHC members voted to make two requests by letter of the Chairman. First, a request that the Department of Medical Assistance Services report to JCHC regarding recommended options for addressing the chronic care needs of Virginia's Medicaid and FAMIS enrollees. Second, a request that the Department of Human Resource Management report to JCHC regarding the costs and benefits of the recently implemented COVA Connect pilot program for State employees.

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Opportunities for Early Identification and Preventive Care of Chronic Diseases

Authority for Study

Senate Joint Resolution 325, introduced by Senator Houck in 2009, directed the Joint Commission on Health Care (JCHC) to:

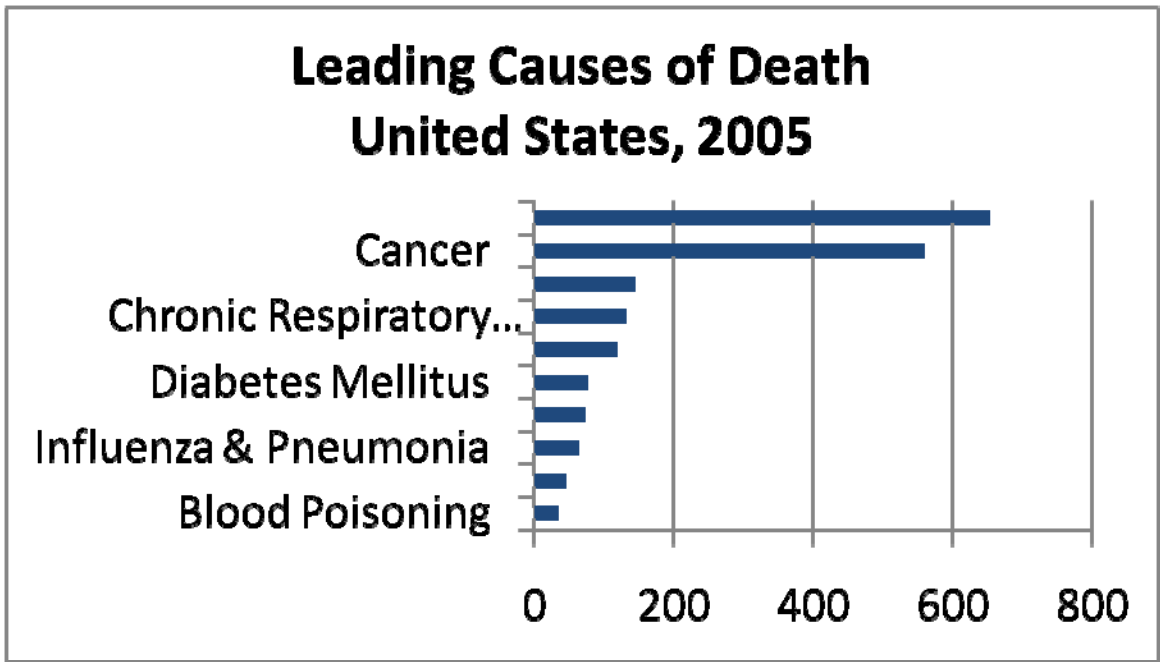
> "Examine clinical and other studies concerning the manner in which early identification and preventive care can be utilized to halt or slow the evolution of such conditions as diabetes, hypertension, kidney disease, obesity, and pneumonia into chronic and terminal conditions;
>
> Assess the means by which Virginia can address fragmentation of services across the health delivery system and the patient's community in order to enhance early identification and preventive care and care management for chronic disease, and to identify opportunities for providing more coordinated care management for individuals with multiple chronic diseases; and, estimate the fiscal impact on the Commonwealth and private payers from such strategies."

Background

Chronic disease refers to a persistent and long-lasting medical condition that does not resolve on its own and requires ongoing care. A chronic disease is rarely curable, but related complications can be managed to improve health. A chronic disease also has many preventable risk factors. The Centers for Disease Control and Prevention (CDC) reports lack of physical activity, poor nutrition, tobacco use, and excessive alcohol consumption, are modifiable risk factors for chronic diseases that exacerbate illness and suffering and lead to early death. Examples of chronic diseases include: heart disease, diabetes, asthma, chronic obstructive pulmonary disease (COPD), and kidney disease.

As the table on the next page indicates, chronic diseases are a leading cause of adult disability and death in the United States (U.S.), and account for 70% of all deaths in

the U.S. (approximately 1.7 million each year). More than 70 million people (four out of five of those 50 and older) have at least one chronic illness; 11 million have more than one. By 2020, the number of Americans with one or more chronic disease is expected to be 157 million, and 81 million will have multiple chronic conditions.



The Cost of Chronic Disease. Chronic disease is expensive. The CDC reports the U.S. spends more on health care than any other nation. In 2006, the U.S. spent $7,000 per person on health care, which is more than twice the average spent by 29 developed countries. Additionally, the U.S. has tripled its health expenditures since 1990. In spite of these investments in health care, the average life expectancy in the U.S. is below many countries that spend less on health care.

One might assume age would be a driving cost factor in health care, but costs are typically driven by the reoccurrence of acute events, such as emergency room visits, hospitalizations, or costly inpatient and outpatient treatment plans. Medical care for people with chronic diseases accounts for more than 75% of the nation's $2 trillion in medical care costs. By 2020, that number is expected to rise to 80% of overall health spending. People with chronic conditions, especially those with two or more, have a high use rate for health care services, including inpatient hospital

services, outpatient care, home health services, and prescription medications. People with five or more chronic diseases are ten times as likely to be hospitalized as those who do not have chronic conditions. People with chronic conditions account for 88% of all prescriptions filled, 72% of all physician visits, and 76% of all inpatient stays. The CDC reports the direct and indirect costs annually in the U.S. of heart disease and stroke to be approximately $448 billion, of smoking to exceed approximately $193 billion, and of diabetes to be approximately $174 billion.

A Snapshot of Chronic Disease in Virginia. The Virginia Department of Health's (VDH) 2006 report on chronic disease indicated approximately 2.2 million Virginians are living with a chronic disease at an estimated cost of $24.6 billion in health care. Virginia-specific chronic disease data for 2003 revealed that cardiovascular disease continued to be the leading cause of death for men and women, accounting for 34.5% of all deaths and 93,661 hospital stays at a total cost of $2.4 billion. Hypertension, which increases the risk of stroke, heart attacks, kidney failure and congestive heart failure, affected one quarter of adults. Hypertension, including hypertensive renal disease, was the primary cause of death of 473 Virginians. Diabetes was suffered by 7.2% of Virginians, almost twice the prevalence rate of 3.8% in 1995. People with diabetes are two to four times more likely to have a heart attack or stroke. An estimated 10% of deaths attributed to cardiovascular disease, had a contributing diagnosis of diabetes. Asthma affected 7.2% of adults and accounted for 10,498 hospitalizations with a total cost of 93.4 million.

The Health Care Delivery System and Chronic Disease

The current health care system is fragmented for many reasons, including the current payment methodology and the use of multiple health care providers (HCPs). The fee-for-service payment system contributes to the overuse of well-reimbursed services and the underuse of less lucrative services, such as care coordination. As such, fee-for-service payments create incentives to provide high volume, often at the expense of value

Additionally, the majority of Americans receive their health care from more than one HCP, such as a physician group, solo physician, hospital, laboratory, pharmacy, urgent care center, work-site clinic, school clinic, or public health site. Americans get to choose. The positive attributes of this ability allows health care

consumers to select HCPs based on location, bedside manner, culture, quality or any other reason. However, such choice inevitably leads to fragmentation. And, fragmentation, in turn, results in errors, duplication, lack of coordination, and excessive cost. "Physician groups, hospitals, and other health care organizations operate as silos, often providing care without the benefit of complete information about the patient's conditions, medical history, services provided in other settings, or medications prescribed by other clinicians." A new study from the Center for Studying Health System Change revealed: "Widespread acknowledgement that most provider payment methods don't encourage efficient or effective delivery of chronic disease care." And, "optimal care for people with chronic disease involves coordinated, continuous treatment through a multidisciplinary team."

Fragmentation in the health care system affects everyone but its impact on those with chronic disease is great. As a result of fragmentation, the health care delivery system for those with chronic conditions is complex and confusing, less effective and more costly. People with multiple chronic conditions typically receive health and home care services from different systems, often from multiple providers within each system. With these multiple HCPs come multiple treatment plans and prescriptions written by different physicians who may be unaware of the other providers treating the individual. This duplication and lack of coordination result in unnecessary emergency room and hospital admissions. Additionally, people who receive care from numerous providers often lack the ability to monitor, coordinate, or carry out their own treatment plans. This is compounded for those 25% with chronic conditions who face limitations with activities of daily living such as walking, dressing and bathing.

Prevention of Chronic Disease

There is a growing body of evidence that earlier identification of chronic diseases coupled with preventive care can halt or slow the progression of chronic diseases, thereby improving patient health and well-being while reducing medical costs. Many programs concentrate on eliminating the preventable risk factors that lead to chronic disease; many go further and focus on wellness as a precursor to prevention. However, much of prevention relies on transforming the health care delivery system from one that reacts when a person is sick to one that is proactive and focused on keeping a person as healthy as possible.

Chronic diseases are the most prevalent, most costly and most preventable of illnesses. Prevention includes interventions such as risk screenings, vaccinations, behavioral education, primary care, disease detection, monitoring and treatment. These activities can significantly reduce disease, disability and death. By way of example the CDC reports of the 50 million adults with high blood pressure, 70% do not have it under control. Such uncontrolled hypertension leads to strokes, heart attacks, renal damage, and retinopathy, and is the primary antecedent to heart failure. The good news is hypertension can be controlled through improvements in diet and physical activity, and through medication. The CDC also points to another example of how prevention works in relation to diabetes. Regular eye exams and timely treatment could prevent up to 90% of diabetes-related blindness. Regular foot examinations and timely treatment could prevent up to 85% of diabetes-related amputations.

Most of the precursors of chronic disease are lifestyle issues which can be altered. The CDC estimates that eliminating three risk factors – poor diet, inactivity, and smoking -would reduce 80% of heart disease and stroke, and 30% of Type 2 diabetes. This estimation is significant considering that currently two of three adults are overweight; one of four adults smoke; one of three adults has high blood pressure; one of three adults has high cholesterol; three of four adults fail to get enough exercise, and four of five adults has a poor diet.

Spectrum of Approaches to Address Chronic Diseases

There is a spectrum of potential approaches to address chronic disease and the fragmentation of the health care system. This spectrum ranges from disease management programs which base care coordination around the identification of specific disease states rather than on the whole person, to programs that focus on all of the person's needs and the service delivery system, to those that focus on prevention and wellness.

Disease Management Programs. Disease management programs are designed to coordinate the delivery of care to patients, improve clinical outcomes, and reduce costs for participants living with specific chronic conditions that have high prevalence rates and / or expensive treatment costs. The programs typically involve

combinations of enhanced screening, monitoring, self-management and education, and the coordination of care among providers.

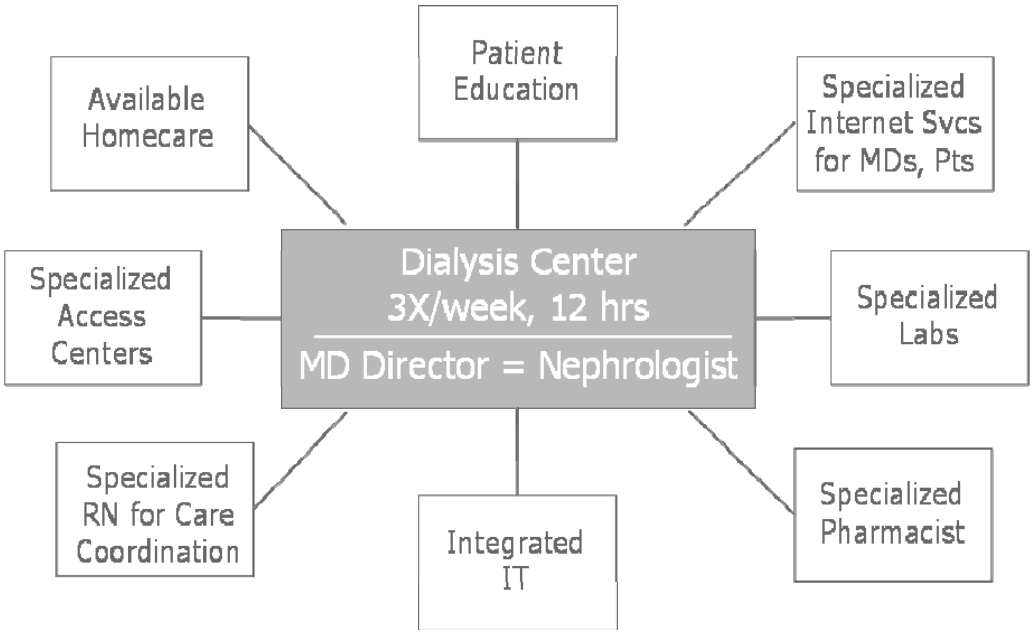
In 2006, Virginia implemented a disease management program, "Healthy Returns," for its Medicaid fee-for-service recipients who have asthma, chronic obstructive pulmonary disease (added in May 2007), heart failure, coronary artery disease, and diabetes. It was designed to help patients better understand and manage their disease through prevention, education, lifestyle changes, and adherence to prescribed plans of care. The program addresses participants' primary conditions, as well as any other chronic conditions they may have.

The Healthy Returns Disease Management Program is a voluntary (opt-in) program that includes all Medicaid and FAMIS enrollees except: individuals enrolled in Medicaid / FAMIS Managed Care Organizations, individuals enrolled in Medicare (dual eligibles), individuals who live in institutional settings such as nursing facilities, and individuals who have third party insurance. The program provides outreach and education, initial assessments, counseling, regularly scheduled follow-up assessments, and a 24 hour toll-free nurse call line. It allows for monitoring of clinical health outcome measures and tracks changes in Virginia's Medicaid and FAMIS expenditures.

Integrated Care Model: Chronic Kidney Disease. Chronic kidney disease (CKD), a precursor to kidney failure, is a growing epidemic in the U.S., with almost two-thirds of CKD patients also having diabetes, hypertension or both. The cost of caring for patients with CKD is high, and the majority of costs result from hospitalizations that are most frequent and costly in the six months prior to initiating dialysis. According to CMS, estimated annual health care costs per patient for CKD is $28,000, and for end stage renal disease (ESRD) the cost is $65,000-$85,000. In comparison, annual costs for patients with diabetes are $10,000 per patient and $5,000 per patient for congestive heart failure. CKD is not included in Virginia's Healthy Returns Disease Management Program.

The same systemic problems that persons with other chronic diseases experience, affect persons with CKD. Many CKD patients are on eight different medications, see three to five doctors, but are given little guidance. Patients have too many appointments and often have transportation issues that prevent them from making or keeping appointments. Additionally, due to gaps in preventive care, many CKD patients end up with avoidable hospital admissions. For instance, less than 50% of

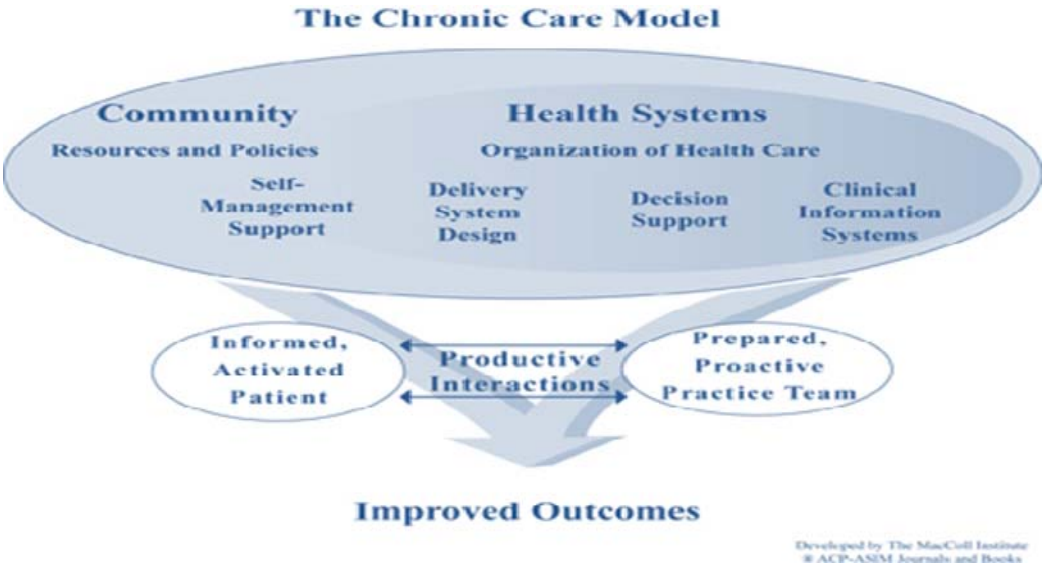
CKD patients are vaccinated for pneumonia. Additionally, catheter infections and poor diet resulting in excess fluid both lead to avoidable hospital stays. Finally, unchecked and untreated foot ulcers lead to avoidable amputations. Because the current system is not delivering integrated care, the integrated care model (ICM) for kidney patient care was developed.



As indicated, the ICM model delivers an integrated care plan and coordination of care with case managers, nurses, PCPs, nephrologists, and other specialists at a central location of a dialysis center. This team identifies and manages risk factors and co-morbid conditions. They provide proactive one on one health coaching, 24/7 access to a registered nurse, customized patient/family education, medication reviews and management by trained pharmacists, diet consultation and nutritional supplements, arranged transportation, social work counseling, hospital discharge support, and online info & community.

Chronic Care Management Models. Other approaches focus less on the chronic disease but on the delivery of care, with the idea that a coordinated delivery system for all will enable the prevention and early identification of chronic diseases. These chronic care management models, as shown below, are more comprehensive, community-based approaches. They focus on the needs of the whole person, rather than only the disease. The models also use community resources to address the non

-medical needs of the patient, understanding that many persons with chronic conditions have other needs that prevent them from getting care, such as, transportation, child care, and housing.



Ideally, the chronic care model focuses on the hierarchy of needs. However, at a minimum, the model comprises interrelated system changes.

- First, the focus is on community. Under the model, partnerships are formed with community organizations to develop interventions that fill any gaps in services and avoid duplication of effort.
- Second, the model changes the health system itself by encouraging open and systemic handling of errors to improve care. This goal is achieved by providing incentives that are based on the quality of care and through agreements developed to facilitate care coordination within and across organizations.
- Third, the model emphasizes self-management support by encouraging the patient's role in managing his own health. This encouragement is achieved through the use of effective self-management support that includes health literacy and cultural sensitivity.
- Fourth, the model provides decision support through the use of evidence-based guidelines and sharing of information with patients to encourage their participation. This model provides for ongoing training for staff on the latest clinical evidence and for the use of new models of provider education

that improve upon traditional continuing medical education. It also allows for integration of specialty and primary care when more complex cases are presented.

- Finally, the model introduces a clinical information system where patient and population data is organized to ensure efficient care, such as timely reminders for services with summarized data to help track and plan patient care. At the population level, it identifies groups of patients needing additional care and facilitates performance monitoring and quality improvement efforts.

Again, this model aims to transform the health care system from acute and reactive to proactive and planned.

Evidence is starting to come in about the cost-effectiveness of the chronic care model. The Chronic Care Illness Collaborative uses this model and RAND evaluated these collaboratives with favorable results. Patients with diabetes had significant decreases to their risk of cardiovascular disease. Chronic heart failure patients in one pilot study were more knowledgeable, relied more often on recommended therapy, and had 35% fewer hospital days than patients not involved. Similarly, asthma and diabetes patients involved in a pilot program were more likely to receive appropriate therapy than were other patients.

The chronic care model is also used in Virginia. As mandated by the Health Resources and Services Administration (HRSA), Virginia's community health centers have been phasing the chronic care model into their care practices. In 2007, the Virginia Association of Free Clinics received a grant from the Department of Health to identify risk factors among clinic patients and adopt best practices for prevention of chronic illnesses. The Medical Society of Virginia Foundation implemented "To Goal" and is supporting 94 family physicians in Southwest Virginia in implementing a chronic care management program. Additionally, DMAS released a request for proposal (RFP) in July 2008 to implement such a model for the Medicaid and FAMIS fee-for-service recipients at highest risk for high utilization and cost of services. DMAS subsequently withdrew the RFP due to a number of technical issues.

Patient-Centered Medical Homes. An example of an approach focusing on the delivery system is the patient-centered medical home (PCMH). This approach uses a team-based model of care led by a personal physician who provides continuous

and coordinated care throughout a patient's lifetime to maximize health outcomes. The personal physician is responsible for the "whole person" and coordinates patient care across the health system and community.

The PCMH represents a change in the way that patient care is organized, delivered and reimbursed. The American Academy of Pediatrics, American Academy of Family Physicians, American College of Physicians, American Osteopathic Association, and Patient Centered Primary Care Collaborative support this model. These groups and the National Committee for Quality Assurance developed a recognition process to ensure that a qualifying practice meets the PCMH model. There are at least 50 national demonstration projects implementing this model.

The PCMH requires a fundamental shift in the relationship between patients and their primary care provider who must help their patients navigate a fragmented system by offering a higher level of personalized care coordination and access. It moves beyond the needs of acute care episodes. The PCMH makes practice resources more readily available and identifies key medical and community resources available to meet patients' needs. The PCMH employs an electronic record infrastructure to identify patients with chronic disease and then facilitate proactive care management. In effect, it reinserts the physician back into the equation to monitor chronic diseases by coordinating care, communication, and information sharing among all physicians and non physicians. The PCMH is based on the chronic care management model and is helpful for patients with multiple chronic diseases whose care can be especially fragmented. However, it is applicable to everyone. Healthy people also benefit from a single site of integrated care because it allows for a system to be in place to intervene early and mange any condition that arises.

Within a PCMH each patient receives care from a personal physician who leads a team of providers who are responsible for planning ongoing care. The personal physician responsible for "whole person" and patient care is coordinated across the health system and community. The PCMH offers enhanced access to care through open scheduling, expanded hours, and new care options such as group visits. Typically providers who adopt the medical home model receive additional compensation to reflect the change in the delivery of health care services. Some receive fee-for-service payments for all of the services they provide plus additional payments to provide care coordination. Some are rewarded for managing patient

care and for meeting or exceeding quality and performance standards, such as through implementing electronic health records, e-prescribing, coordinating medication management with pharmacists, tracking test and referrals, providing telephone access after business hours, and the increasing percentage of children who receive well-child visits.

A Dartmouth study, among countless others, indicates that patients in PCMHs have better outcomes and lower costs, fewer intensive care unit and hospital admissions, lower mortality rates and decreased health care utilization and spending. Many states have implemented the model. North Carolina implemented the PCMH model in its Medicaid program and has improved outcomes related to diabetes and asthma and saved the state $200-220 million per year.

Prevention and Wellness Approaches. Other approaches recognize the growing body of evidence that earlier identification of chronic diseases coupled with preventive care can halt or slow the progression of chronic diseases, thereby improving patient health and well-being while reducing medical costs. Some employers are adding on-site medical clinics in an effort to save on health care costs and encourage employee wellness. The greatest potential for avoidable health care spending comes from employees with chronic conditions. 87.5% of health care claim costs are due to an individual's lifestyle, such as smoking and obesity. Clinics encourage and provide health risk assessments and preventive care. They allow the medical provider to spend time with each patient to explain health improvement and wellness activities.

On-site medical clinics have been shown to reduce medical benefit costs as they typically charge based on wholesale rather than retail costs for physician services, prescription drugs, and laboratory tests. The clinics also increase productivity by providing scheduled 20-minute appointment times that reduce time away from work and have been shown to improve employee health. It has been reported that it is the physician/patient relationship that drives compliance and behavior change. On-site clinics bolster this relationship through the provision of free health care visits, health care coaching, and a 24-hour nurse line.

Given that most chronic conditions can be attributed to poor lifestyle habits, it follows that they are better controlled with improved lifestyles. As such, wellness programs in general are a growing trend in the private sector, which is mandating

health testing and wellness programs in order to improve employee health and decrease costs.

Well over half of larger companies have launched such initiatives. One example is AmeriGas, based in Valley Forge, Pennsylvania. AmeriGas faced health expense increases of 10% per year and had a self-insured health plan that paid more than two dozen insurance claims in the previous year for amounts greater than $100,000. Workers within the company had high rates of diabetes and heart disease and were not getting their required tests. As a result, AmeriGas decided to mandate participation in the wellness plan. Under the mandated wellness plan checkups are free. The plan does not charge for generic drugs for diabetes, blood pressure, asthma and cholesterol, but copayments are reduced for brand-name medications for those conditions. Since implementation, 90% of the workers have gotten their required examinations and the use of needed drugs rose. There is anecdotal evidence of improved health. However, health care costs were at least 3% higher in the first year given the increased utilization.

In July 2009, a pilot program for State employees in the Hampton Roads area was implemented to focus on wellness and preventive care. The two-year contract with Optima Health for the pilot program, designated as "COVA Connect" will cover 17,000 State employees and seek to reduce chronic conditions and control health care costs. The plan focuses on convenience in an effort to encourage lifestyle changes. Under the plan, age-appropriate health screenings are provided at no cost to the employee. Health coaches and personalized diet and exercise programs are provided also.

Policy Options and Public Comments

Staff presented four policy options for public comment and consideration. Comments were submitted by Becky-Bowers Lanier on behalf of AmeriHealth Mercy (an "organization of Medicaid managed care plans"); Lisa Specter-Dunaway, President / CEO of CHIP of Virginia; and Marcia A. Tetterton, Executive Director of the Virginia Association for Home Care and Hospice. All three comments addressed Option 2.

JCHC members voted to approve Option 2 and Option 4.

Option 1: Take no action.

 **Option 2:** By letter of the Chairman, request that DMAS report to JCHC no later than August 2010, regarding recommended options for addressing the chronic care needs of Virginia's Medicaid and FAMIS enrollees. The options should consider at a minimum issues related to:

- whether to retain a disease management program (perhaps incorporating additional diseases and an integrated care model for Chronic Kidney Disease),
- whether to reissue a proposal for chronic care management services, and
- whether to initiate one or more demonstration projects for a patient-centered medical home.

Three Public Comments Were Received. Two comments addressed support and made suggestions regarding chronic care management. The third comment addressed the role of prenatal and childhood home visitation programs in chronic care management.

Becky-Bowers Lanier, commenting on behalf of AmeriHealth Mercy, indicated:

"We [AmeriHealth Mercy] have found that due to the complexity of health issues experienced by the Medicaid population, management of a single condition does not optimally support the participants nor does it drive improved cost efficiency. Too often, other contributing factors are not considered, such as co-morbidities, behavioral/mental health issues, safety, housing and other concerns that affect appropriate access to care. If the Commonwealth pursues the creation of a chronic disease prevention and chronic care management program for Medicaid recipients, AmeriHealth Mercy would be very interested in discussing this."

Lisa Specter-Dunaway, of CHIP of Virginia, noted "surprise at the absence of research or discussion about the prevention of chronic diseases that result from premature and/or low-birth weight, childhood asthma, or adverse events in the lives of infants and young children." Ms. Specter-Dunaway continued by saying: "There are significant data at the national and local levels highlighting opportunities for low cost chronic care models, specifically prenatal and early

childhood home visitation programs….The Commonwealth has an opportunity to wisely invest scarce resources in proven programs that can decrease short and long term health care costs associated with chronic diseases. I urge you to consider the role home visiting programs can have in accomplishing this goal."

Marcia Tetterton of the Virginia Association for Home Care and Hospice commented in support of Option 2 with the "modification that home health also be included in the model….The Chronic Care Model (CCM)…is an accepted model of chronic care management….It has recently been suggested that this model be expanded to be a home-based chronic care model."

Option 3: By letter of the Chairman, request that the Department of Human Resource Management report to JCHC regarding the feasibility and advisability of initiating a pilot program with on-site medical clinics for state employees.

 **Option 4:** By letter of the Chairman, request that the Department of Human Resource Management report to JCHC regarding the costs and benefits of the recently implemented COVA Connect pilot program.

JCHC Staff for this Report

Jaime H. Hoyle
Senior Staff Attorney / Health Policy Analyst

Joint Commission on Health Care

Staff Report: Opportunities for Early Identification and Preventive Care of Chronic Diseases (SJR 325 – 2009)

September 1, 2009

Jaime Hoyle
Sr. Staff Attorney/Health Policy Analyst

SJ 325 Study Mandate

- SJ 325 directs the JCHC to:
  i. "Examine clinical and other studies concerning the manner in which early identification and preventive care can be utilized to halt or slow the evolution of such conditions as diabetes, hypertension, kidney disease, obesity, and pneumonia into chronic and terminal conditions;
  ii. assess the means by which Virginia can address fragmentation of services across the health delivery system and the patient's community in order to enhance early identification and preventive care and care management for chronic disease, and to identify opportunities for providing more coordinated care management for individuals with multiple chronic diseases; and,
  iii. estimate the fiscal impact on the Commonwealth and private payers from such strategies."

Chronic Disease

- Refers to a persistent and long-lasting medical condition that does not resolve on its own and requires ongoing care.
- Is rarely curable, but related complications can be managed to improve health.
- Has many preventable risk factors.
- Examples include: heart disease, diabetes, asthma, chronic obstructive pulmonary disease (COPD), and kidney disease.

Chronic Disease Statistics

- Chronic diseases are a leading cause of adult disability and death in the US.
  - Account for 70% of all deaths in the U.S. (approximately 1.7 million each year). http://www.cdc.gov/nccdphp/
- More than 70 million (4 out of 5 of those 50 and older) have at least one chronic illness; 11 million have more than one.
  - By 2020, the number of Americans with one or more chronic disease is expected to be 157 million, and 81 million will have multiple chronic conditions. (Robert L. Mollica and Jennifer Gillespie. "Care Coordination for People with Chronic Conditions," Partnership for Solutions, Johns Hopkins University. January 2003.)

Costs of Chronic Disease

- Expenses for chronic diseases are typically driven by the reoccurrence of acute events, such as emergency room visits, hospitalizations, or costly inpatient and outpatient treatment plans.
- The medical care costs for people with chronic diseases account for more than 75% of the nation's $2 trillion in medical care costs. By 2020, that is expected to rise to 80% of overall health spending.
  www.cdc.gov/nccdphp/overview.htm
- People with chronic conditions account for 88% of all prescriptions filled, 72% of all physician visits, and 76% of all inpatient stays.
- In the U.S., the Centers for Disease Control (CDC) reports the direct and indirect costs annually of:
  - Heart disease and stroke to be approximately $448 billion,
  - Smoking estimated to exceed $193 billion, and
  - Diabetes to be approximately $174 billion.

Costs of Chronic Disease in Virginia

- The Virginia Department of Health's 2006 report on chronic disease indicated approximately 2.2 million Virginians are living with a chronic disease at an estimated cost of $24.6 billion in health care. Virginia-specific chronic disease data for 2003 revealed:
  - Cardiovascular disease continued to be the leading cause of death for men and women.
    - 93,661 hospital stays; total cost of $2.4 billion.
    - 34.5% of all deaths.
  - Hypertension (high blood pressure) affected 1/4th of adults.
    - Increases risk of stroke, heart attacks, kidney failure and congestive heart failure.
    - Hypertension, including hypertensive renal disease, was the primary cause of death of 473 Virginians.
  - Diabetes was suffered by 7.2% of Virginians, almost twice the prevalence rate of 3.8% in 1995.
    - People with diabetes are 2-4 times more likely to have a heart attack or stroke.
    - An estimated 10% of deaths attributed to cardiovascular disease, had "a contributing diagnosis of diabetes."
    - 11,231 diabetes-related hospitalizations resulted; at a total cost of $165.8 million.
  - Asthma affected 7.2% of adults; the mortality rate has declined from 5.0 per 100,000 in 1995 to 3.8 per 100,000 in 2003.
    - 10,498 hospitalizations; total cost of $93.4 million.

Source: Virginia Department of Health, Division of Chronic Disease, Prevention and Control, "Chronic Disease in Virginia: A Comprehensive Data Report" (2006 addition).

Fragmentation

- People with multiple chronic conditions typically receive health and home care services from different systems, often from multiple providers within each system. As a result, the health care delivery system for those with chronic conditions is complex and confusing, and care is often fragmented, less effective and more costly.
- People who receive care from numerous providers often lack the ability to monitor, coordinate or carry out their own treatment plans.
  - Often have multiple health care providers (HCPs), treatment plans and prescriptions written by different physicians who may be unaware of the other providers treating the individual; resulting in unnecessary ER and hospital admissions.
  - About 25% of those with chronic conditions face limitations with activities of daily living such as walking, dressing and bathing.

Source: Robert L. Mollica and Jennifer Gillespie. "Care Coordination for People with Chronic Conditions," Partnership for Solutions, Johns Hopkins University. January 2003.

Fragmentation

- "Physician groups, hospitals, and other health care organizations operate as silos, often providing care without the benefit of complete information about the patient's conditions, medical history, services provided in other settings, or medications prescribed by other clinicians." Ernest Clevenger, "How Primary Care, America's Best-Kept Secret, Can Reduce Health Care Costs for Self-Funded Employers" HealthWatch, September 2008.
- A new study from the Center for Studying Health System Change revealed:
  - "widespread acknowledgement that most provider payment methods don't encourage efficient or effective delivery of chronic disease care."
  - And, "optimal care for people with chronic disease involves coordinated, continuous treatment by a multidisciplinary team."

Prevention of Chronic Disease

- There is a growing body of evidence that earlier identification of chronic diseases coupled with preventive care can halt or slow the progression of chronic diseases, thereby improving patient health and well-being while reducing medical costs. (www.aha.org)
- Many programs concentrate on eliminating the preventable risk factors that lead to chronic disease; many go further and focus on wellness as a precursor to prevention.
  - Transforming the system from one that reacts when a person is sick, to one that is proactive and focused on keeping a person as healthy as possible. (www.improvingchroniccare.org)

Prevention of Chronic Disease

- Chronic diseases are the most prevalent, most costly and most preventable of illnesses.
  - Prevention includes interventions such as risk screenings, vaccinations, education on behavior, primary care, disease detection, monitoring and treatment.
    - These activities can significantly reduce disease, disability and death. (www.aha.org)
- The CDC reports:
  - Of 50 million adults with high blood pressure, 70% do not have it under control; Uncontrolled hypertension leads to strokes, heart attacks, renal damage, and retinopathy, and is the primary antecedent to heart failure.
  - Hypertension can be controlled through improvements in diet and physical activity, and medication.
  - Regular eye exams and timely treatment could prevent up to 90% of diabetes-related blindness
  - Regular foot examinations and timely treatment could prevent up to 85% of diabetes-related amputations.

Prevention of Chronic Disease

- Most of the precursors of chronic disease are lifestyle issues which can be altered.
  - The CDC estimates that eliminating 3 risk factors -poor diet, inactivity, and smoking- would reduce 80% of heart disease and stroke and 30% of Type 2 diabetes.
    - 2 of 3 adults are overweight
    - 1 of 4 adults smoke
    - 1 of 3 adults has high blood pressure
    - 1 of 3 has high cholesterol
    - 3 of 4 adults fail to get enough exercise
    - 4 of 5 adults need to improve their diet.

Addressing Chronic Disease through Care Coordination Approaches

- Disease Management
- Integrated Care Model: Kidney Disease
- Chronic Care Management Models
- Patient Centered Medical Home
- On-Site Medical Clinics
- Wellness Programs

Disease Management Programs

- Designed to:
  - Coordinate the delivery of care to patients,
  - Improve clinical outcomes, and
  - Reduce costs for participants living with specific chronic conditions that have high prevalence rates and/or expensive treatment costs.
- Used by almost all health insurers, employers and a majority of states to manage chronic diseases.
- Typically involve combinations of enhanced screening, monitoring, self-management and education, and the coordination of care among providers.

Department of Medical Assistance Services (DMAS) Directed to Implement Disease Management Programs

- DMAS was directed in the 2005 Appropriations Act "to update on its efforts to contract for and implement disease management programs into the Medicaid program."
  - DMAS review found that "Virginia's health data reflects national trends for chronic illness."
  - In FY2005, DMAS spent approximately $825 million on health care expenses related to chronic illnesses.

Report of the Department of Medical Assistance Services, "Disease Management and Virginia's Medicaid Program." HD 90 2005.

Virginia Medicaid Healthy Returns Disease Management Program (DM Program)

- Implemented January 13, 2006 for Medicaid fee-for-service patients with:
  - asthma,
  - congestive heart failure,
  - coronary artery disease,
  - diabetes, and
  - chronic obstructive pulmonary disease (COPD); added in May 2007.
- Designed to help patients better understand and manage their disease through prevention, education, lifestyle changes, and adherence to prescribed plans of care.
- Addresses participants' primary conditions, as well as any other chronic conditions they may have.

Healthy Returns DM Program

- Voluntary (opt-in) program.
- Includes all Medicaid and FAMIS enrollees except:
  - Individuals enrolled in Medicaid/FAMIS MCOs
  - Individuals enrolled in Medicare (dual eligibles)
  - Individuals who live in institutional settings such as nursing facilities
  - Individuals who have 3rd party insurance
- Provides outreach and education, initial assessments, counseling, regularly scheduled follow-up assessments, and a 24 hour toll-free nurse call line.
- Monitors clinical health outcome measures and tracks changes in Virginia's Medicaid and FAMIS expenditures.

Integrated Care Model: Chronic Kidney Disease

- Chronic kidney disease (CKD), a precursor to kidney failure, is a growing epidemic in the US, with almost two-thirds of CKD patients also having diabetes, hypertension or both.
- Cost of caring for patients with CKD is high, and the majority of costs result from hospitalizations that are most frequent and costly in the 6 months prior to initiating dialysis.
- According to the Centers for Medicare and Medicaid Service (CMS), estimated annual health care costs per patient for CKD is $28,000 and for end stage renal disease (ESRD) is $65,000-$85,000.
  - In comparison, annual costs for patients with diabetes is $10,000 per patient and $5,000 per patient for congestive heart failure.
  - CKD is not included in Virginia's Healthy Returns DM Program.

Current Fragmented System Not Delivering Integrated Care

Gaps In Preventive Care

- < 50% vaccinated for pneumonia

Inadequate Access to Expertise

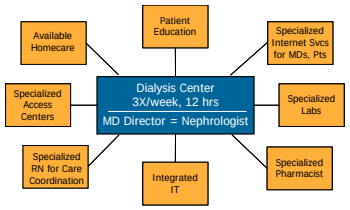
- ~8 meds, 3-5 MDs, but little guidance
- Too many appts; transport issues

Avoidable Hospital Admits

- Catheter infection → hospital
- Diet → excess fluid → hospital
- Foot ulcer → amputation

Source: DaVita 2009

ICM Improves Kidney Patient Care



- **Integrated care plan/coordination of care with case managers, nurses, PCPs, nephrologists, and other specialists**
- **Identification and management of risk factors and co-morbid conditions**
- **Proactive 1:1 health coaching**
- **24/7 access to RN**
- **Customized patient/family education**
- **Medication reviews and management by trained pharmacists**
- **Diet consultation and nutritional supplements**
- **Arranged transportation**
- **Social work counseling**
- **Hospital discharge support**
- **Online info & community**

Source: DaVita 2009

CMS Has Recognized the Integrated Care Model's Potential for Savings

Two CMS Demonstration Examples

- *DVA ESRD Demo* (CA)→ 400 enrolled, saves 6.5%, beats quality targets[1]
- *DVA CKD Demo* → 1,600 enrolled, reducing hospitalizations ~8%[1]

1 Source: DaVita analysis of claims costs vs. benchmark/control; not validated by CMS

Chronic Care Management Models

- More comprehensive, community-based approach to address needs of patients with chronic disease.
- Focuses on needs of the whole person, rather than only the disease.
- Uses all community resources to address needs of patient.
  - Attention to the hierarchy of needs
  - Many persons with chronic conditions have other problems that prevent them from getting the help they need:
    - poverty, transportation, mental illness, child care, housing, etc.

Components of Chronic Care Model

- Community:
  - form partnerships with community organizations to develop interventions that fill any gaps in services; avoid duplication of effort.
- Health system:
  - encourage open and systemic handling of errors/quality to improve care; provide incentives based on quality of care; and develop agreements that facilitate care coordination within and across organizations.
- Self-management support:
  - emphasize patient role in managing own health; use effective self-management support; include health literacy and cultural sensitivity.

Chronic Care Model

- Decision support:
  - use evidence-based guidelines and share information with patients to encourage their participation; ongoing training for staff on latest clinical evidence; use of new models of provider education that improve upon traditional continuing medical education; and integration of specialty and primary care when more complex cases are presented.
- Clinical information system:
  - organize patient and population data to help ensure efficient care: timely reminders for services with summarized data to help track and plan patient care; at the population level, identify groups of patients needing additional care and facilitate performance monitoring and quality improvement efforts.

Chronic Care Model

- Chronic Care illness collaboratives:
  - Use this model
  - RAND evaluated these collaboratives
    - Patients with diabetes had significant decreases to their risk of cardiovascular disease
    - Chronic heart failure pilot patients were more knowledgeable, relied more often on recommended therapy, and had 35% fewer hospital days than patients not involved
    - Asthma and diabetes pilot patients were more likely to receive appropriate therapy than were other patients.

Chronic Care Model in Virginia

- As mandated by Health Resources and Services Administration (HRSA), Virginia's community health centers have been phasing the Chronic Care Model into their care practices.
- In 2007, the Virginia Association of Free Clinics received a grant from the Department of Health to identify risk factors among clinic patients and adopt best practices for prevention of chronic illnesses.
- The Medical Society of Virginia Foundation implemented "To Goal" and is supporting 94 family physicians in Southwest Virginia in implementing a chronic care management program.

Source: "Chronic Care Management, Summary of Research and Key Findings," Virginia Health Care Foundation, December 8, 2008.

DMAS Issued Request-for-Proposals (RFPs) for a Care Management Program

- Released RFP in July 2008.
- Designed to focus on Medicaid and FAMIS fee-for-service recipients at highest risk for high utilization of services and cost of services.
- Withdrew RFP because too expensive and CMS would not approve certain elements.

Patient Centered Medical Home (PCMH)

- Supported by American Academy of Pediatrics, American Academy of Family Physicians, American College of Physicians, American Osteopathic Association, Patient Centered Primary Care Collaborative.
- These groups and National Committee for Quality Assurance developed recognition process to ensure that qualifying practice meets PCMH model.
- 50 national demonstration projects.

Patient Centered Medical Home

- Team-based model of care led by personal physician who provides continuous and coordinated care throughout a patient's lifetime to maximize health outcomes.
- Components include:
  - Each patient receives care from personal physician who leads team of providers who are responsible for planning ongoing care;
  - personal physician responsible for "whole person";
  - patient care coordinated across health system and community;
  - enhanced access to care offered through open scheduling, expanded hours, and new care options such as group visits;
  - payment structure recognizes enhanced value provided to patients.

Patient Centered Medical Home

- Typically providers who adopt the medical home model receive additional compensation to reflect the change in the delivery of health care services. Some:
  - Receive fee-for-service payments for all services they provide plus additional payments to provide care coordination.
  - Are rewarded for managing patient care and for meeting or exceeding quality and performance standards, such as:
    - by implementing electronic health records,
    - e-prescribing,
    - coordinating medication management with pharmacists,
    - tracking test and referrals,
    - providing telephone access after business hours, and the percentage of children who receive well-child visits.

Patient Centered Medical Home

- Congress passed Medicare Medical Home Demonstration Project in 2006.
  - Coordinated by American Medical Association, is 3-year demonstration project that will focus on rural, urban, and underserved areas in up to 8 states.
  - Will provide participating internists with care coordination fee for managing care of patients with multiple chronic conditions and allow physicians to share in cost savings, such as from reduced hospitalizations, that result from effective physician-directed care management.

On-Site Medical Clinics

- Some employers are adding on-site medical clinics in an effort to save on health care costs and encourage employee wellness.
  - The greatest amount of avoidable health care spending comes from employees with chronic conditions.
    - 87.5% of health care claim costs are due to an individual's lifestyle, such as smoking and obesity.
- Clinics encourage and provide health risk assessments and preventive care, allow the medical provider to spend time with each patient to explain health improvement and wellness activities.

Cost savings of On-Site Medical Clinics

- Reduce medical benefit costs
  - Exchange retail for wholesale on physician services, prescription drugs, and laboratory tests
- Increase productivity
  - Scheduled 20-minute appointment times that reduce time away from work
- Improve employee health
  - Encourage relationship with physician through free health care visits; it has been reported that it is this relationship that drives compliance and behavior change
  - Provide health care coaching, 24 hour nurse line,

Wellness Programs

- Growing trend in private sector is to mandate health testing and wellness programs in order to improve employee health.
  - Well over half of big companies have launched such initiatives
  - One example is AmeriGas, based in Valley Forge, PA
    - Faced health expenses increases of 10% per year.
    - Self-insured health plan
    - Paid more than 2 dozen insurance claims in previous year for amounts greater than $100,000
    - Workers had high rates of diabetes and heart disease
    - People were not getting their required tests so decided to mandate.
    - Under the mandated wellness plan:
      - Checkups free
      - Plan doesn't charge for generic drugs for diabetes, blood pressure, asthma and cholesterol; Copayments reduced for brand-name medications for those conditions.
  - Since implementation, 90% have gotten required exams; use of needed drugs rose.
  - Anecdotal evidence of improved health
  - Health care costs were at least 3% higher in the first year given increased utilization.

Anna Wilde Mathews, "When All Else Fails: Forcing Workers into Healthy Habits," The Wall Street Journal. July 8, 2009.

Virginia's Focus on Wellness

- Age-appropriate health screenings are provided at no cost to the employee under the State Employee Health Plan.
- COVA Connect was implemented in July 2009.
  - Pilot program for State employees in Hampton Roads area.
  - Administered by Optima Health.
  - Focus on wellness and preventive care to reduce on chronic conditions and control health costs.
  - Focus on convenience to encourage lifestyle change.
  - Provide health coaches, and personalized diet and exercise programs.
  - 2 year contract will cost the State $5 million in administrative costs and cover 17,000 State employees
  - Optima projects it has already saved 17% by identifying those at high risk for developing chronic diseases and enrolling them in health management programs.

Policy Options

- Option 1: Take no action.
- Option 2: By letter of the Chairman, request that DMAS report to JCHC no later than August 2010, regarding recommended options for addressing the chronic care needs of Virginia's Medicaid and FAMIS enrollees. The options should consider at a minimum issues related to:
  - whether to retain a disease management program (perhaps incorporating additional diseases and an integrated care model for Chronic Kidney Disease),
  - whether to reissue a proposal for chronic care management services, and
  - whether to initiate one or more demonstration projects for a patient-centered medical home.

Policy Options

- Option 3: By letter of the Chairman, request that the Department of Human Resource Management report to JCHC regarding the feasibility and advisability of initiating a pilot program with on-site medical clinics for state employees.
- Option 4: By letter of the Chairman, request that the Department of Human Resource Management report to JCHC regarding the costs and benefits of the recently implemented COVA Connect pilot program.

Public Comments

- Written public comments on the proposed options may be submitted to JCHC by close of business on September 29, 2009.
- Comments may be submitted via:
  - E-mail: sreid@jchc.virginia.gov
  - Fax: 804-786-5538
  - Mail: Joint Commission on Health Care
    P.O. Box 1322
    Richmond, Virginia 23218
- Comments will be summarized and presented to JCHC during its October 7th meeting.

Internet Address

Visit the Joint Commission on Health Care website:
http://jchc.state.va.us

Contact Information
jhoyle@jchc.virginia.gov
900 East Main Street, 1st Floor West
P. O. Box 1322
Richmond, VA 23218
804-786-5445
804-786-5538 fax

Appendix A

SENATE JOINT RESOLUTION NO. 325

Directing the Joint Commission on Health Care to study opportunities for early identification and preventive care of chronic diseases. Report.

Agreed to by the Senate, February 4, 2009
Agreed to by the House of Delegates, February 26, 2009

WHEREAS, an estimated 60 percent of Americans ages 18 and older, or more than 1 in 2 adults, suffer from a diagnosable chronic disease in a given year; and

WHEREAS, chronic diseases are a leading cause of adult disability and death in the United States; and

WHEREAS, every year, hundreds of thousands of Virginians suffering from chronic disease are served by the Commonwealth's medical services system; and

WHEREAS, the cost of chronic disease treatment is borne by the Commonwealth's Medicaid program as well as by private health plans, employers, medical facilities, as well as patients and their families; and

WHEREAS, there is a growing body of evidence indicating that earlier identification of chronic diseases coupled with preventive care can halt or slow the progression of chronic diseases, thereby improving patient health and well-being while reducing medical costs; and

WHEREAS, the current public health and medical services system in Virginia and beyond may not be optimally structured to allow for early identification and preventive care in a broad-based fashion; and

WHEREAS, the current public health and medical services system in Virginia may not be optimally structured to allow for care management of those with more than one chronic disease; and

WHEREAS, the demand for treatment of chronic diseases in Virginia will continue to increase as the population of older persons and others at risk continues to grow; now, therefore, be it

RESOLVED by the Senate, the House of Delegates concurring, That the Joint Commission on Health Care be directed to study opportunities for early identification and preventive care of chronic disease.

In conducting its study, the Commission shall (i) examine clinical and other studies concerning the manner in which early identification and preventive care can be utilized to halt or slow the evolution of such conditions as diabetes, hypertension, kidney disease, obesity, and pneumonia into chronic and terminal conditions, (ii) assess the means by which Virginia can address fragmentation of services across the health care delivery system and the patient's community in order to enhance early identification and preventive care and care management for chronic disease, and to identify opportunities for providing more coordinated care management for individuals with multiple chronic diseases, and (iii) estimate the fiscal impact on the Commonwealth and private payers from such strategies.

Technical assistance shall be provided to the Commission by the Departments of Health and Medical Assistance Services. All agencies of the Commonwealth shall provide assistance to the Commission for this study, upon request.

The Joint Commission on Health Care shall complete its meetings by November 30, 2009, and the Chairman shall submit to the Division of Legislative Automated Systems an executive summary of its findings and recommendations no later than the first day of the 2010 Regular Session of the General Assembly. The executive summary shall state whether the Commission intends to submit to the General Assembly and the Governor a report of its findings and recommendations for publication as a House or Senate document. The executive summary and report shall be submitted as provided in the procedures of the Division of Legislative Automated Systems for the processing of legislative documents and reports and shall be posted on the General Assembly's website.

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