Adapted from RADM Steven K. Galson's lecture, "A Call to Action to Prevent DVT and PE" delivered at Brigham and Women's Hospital, January 30, 2009

As Acting Surgeon General, I serve as our nation's chief "health educator" - responsible for giving Americans the best scientific information available on how to improve their health and reduce the risk of illness and injury.

As I travel around the country, I share information about advances in many scientific and medical disciplines.

I'm particularly pleased to be with you today because a subset of you have already done a great to help me in one of my key educational projects – to improve provider awareness and enhance Deep Vein Thrombosis (DVT) and Pulmonary Embolism (PE) prevention and care.

The fields of clinical medicine and public health, as well as untold numbers of individual patients are better for what you have already done on this issue.

<u>Leadership</u>

I appreciate the time, expertise and resources that NATF (North American Thrombosis Forum) and Dr. Goldhaber's team at Brigham and Women's Hospital have devoted to addressing DVT and PE.

Until recently, these two serious conditions received far too little attention.

But that is changing.

We are seeing important improvements in health care provider understanding of DVT and PE, and we're seeing an increasing consciousness of the risks and consequences of these conditions among patients.

The Department of Health and Human Services in Washington is honored to count the NATF and the Brigham and Women's Hospital team among our most valuable partners in improving visibility about these conditions.

This institution's history of clinical innovation and discovery associated with PE and DVT is impressive.

I wish I were here earlier to hear about it.

Drs. Sasahara, Libby, Rybicki, and Cohn, I commend you.

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This symposium provides an unusual opportunity for progress in: FIRST, continuing to advance the clinical understanding of Deep Vein Thrombosis and Pulmonary Embolism; SECOND, identifying and applying the best ways to prevent these deadly conditions; and THIRD, hopefully - ultimately establishing the ability to PREVENT DVT and PE entirely.

I know some of you here today may be familiar with the Office of the U.S. Surgeon General, hopefully not from first hand knowledge of the cigarette package warning,

With the political transition in Washington, there's been a lot in the news about the role of the Surgeon General is.

So, I want to spend a minute and shift to that big picture question.

Responsibilities

1) Helping to create and promote a culture of health and wellness; 2) emphasizing the importance of DISEASE PREVENTION; 3) encouraging healthy decisions; and 4) promoting policy change that helps this country evolve toward better health is what the Office of the Surgeon General is all about.

Today, we spend the vast proportion of our health care dollars treating preventable diseases.

Consistently investing in preventing chronic diseases will save precious lives, but it will also save on health care spending.

This spending, these costs, are increasingly painful for American families and in this time of economic turmoil it is important to recognize the role of increased per capita spending on health.

The share of household income spent on medical expenses has crept up for at least 15 years (*Bureau of Labor Statistics consumer expenditure data).*

A recent study by the Commonwealth Fund found that, "accelerated growth in health care spending has translated into increased burdens on family budgets."

According to recent data, an average of 13 million families (11 percent of American families) spent 10 percent or more of their annual income on out-of-pocket health care expenses in 2000-01.

That's up from 8 percent in 1996-97.

Many of you probably agree with me when I say that prevention-based, cost-effective care is essential.

It is part of the pressing need to effect a real change in the way we think about health care in the United States.

I want to reflect for just a moment on the changes currently taking place in Washington. Significant changes in policy, and senior leadership are taking place in Washington, but certain critical goals remain the same.

Continually improving the health of the Nation is surely one of them. This is as it should be: for improving public health is not a parochial objective. It is an imperative with real consequences for people.

There are three fundamental problems plaguing the American health care and service delivery system today: skyrocketing costs, lack of access, and disparity of quality care.

Today, 47 million Americans lack health-care coverage. It is projected that the U.S. will spend nearly $2.4 trillion on health care this year. That is almost $7,500 per person. Health Insurance Premiums have increased nearly 98% since 2000. And this increase is nearly four times faster than the growth of wages during the same period.

Too often, for individuals who lack health care coverage, the quality of health care they receive is inadequate. For instance, the U.S. lags behind other industrialized countries in basic health measures such as life expectancy and infant mortality.
Moreover, we have less same-day access to primary care physicians as individuals in other countries.

Within HHS, we have been talking for some time about how important it is that we have a system which is quality and value-driven. Today, providers cannot offer the best care they are capable of and consumers do not have the ability to consider value when they make their health care purchasing decisions.

Accordingly, the future must be one in which consumers are able to find out which hospital in their area has the highest success rate for the procedure they need, can compare doctors, not just on what they charge, but also in the quality of the care they give, and approach health care they way they would any other major purchase - by consulting an impartial source

of information on quality and cost.

The situation illustrates what virtually every stakeholder interested in a healthier, fitter Nation understands: a profound cultural change is required.

Prevention

Americans need to focus more on preventing illness and staying well and less on treating disease. We must move from a system of medical care that values diagnosing and curing diseases, to one that focuses on Disease Prevention.

This brings me back to DVT and PE

As many of you are aware, deep vein thrombosis and pulmonary embolism affect an estimated 350,000 to 600,000 Americans each year, and the numbers are expected to increase as the U.S. population ages. Together, they contribute to at least 100,000 deaths annually.

At least 70% of fatal PE detected post-mortem are not suspected or diagnosed *(Stein PD, et al. Chest 1995;110:978-98. Sandler DA, et al. J R Soc Med 1989;82:203-205; and 10-27-08 Galloway powerpoint).*

This is why last year I issued the *"Surgeon General's Call to Action on Deep Vein Thrombosis and Pulmonary Embolism,"* which was a formal starting point and catalyst for improving prevention, detection and treatment.

What is a Call to Action?

A Call to Action is a science-based document to stimulate action nationwide to solve a major public health problem. It is based on expert scientific evidence and public input; reviews the nature and scope of the public health concern, effective treatment and interventions, preventive measures, and diagnostic issues; and addresses disparities.

CTAs are published with the intent to mobilize individuals, health care providers, and society to take immediate action in addressing an urgent public health concern.

Dr. Sam Goldhaber, who, of course, introduced me a moment ago, and Dr. Thomas Ortel of Duke Medical School, served as Scientific Editors of the Surgeon General's Call to Action on DVT and PE. The CTA reflects their

expertise. As its contents are widely understood and applied by caregivers I am confident that the incidence of PE an DVT will decrease.

New relevant scientific research is also underway.

The first multi-center, randomized, clinical trial of genotype-guided dosing of warfarin therapy, the most commonly used blood-thinning treatment (*sponsored by the National Heart, Lung and Blood Institute, within the National Institutes of Health*) is at hand.

Investigators will examine whether the use of clinical plus genetic information during the initiation of warfarin can lead to better and safer treatment in patients, especially those with DVT, atrial fibrillation, who are at risk for stroke, or who require warfarin therapy following orthopedic surgery.

This and other NIH-sponsored research complements the efforts of the six established Thrombosis and Hemostasis Centers supported by the Centers for Disease Control and Prevention.
By significantly enhancing our Federal research investment in DVT, these efforts will augment scientific knowledge of DVT/PE and venous disease broadly.

The promises of this medical research, and the improvements in care of DVT and PE all of us want, cannot be fully achieved if we do not simultaneously address health literacy.

We cannot make improvements in health care and prevention if our messages aren't being understood.

In 2003, an estimated 77 million American adults, about 36 percent of the population, were reported to be at or below basic health literacy levels (*Source: National Center for Education Statistics, Institute for Education Sciences*).

When a patient does not understand that certain triggering events *(being hospitalized or confined to bed rest, having major surgery, breaking a leg, or perhaps traveling over a period of several hours)* all increase the risk for DVT and PE, that is a problem; when a patient is not cognizant that DVT and PE risk increases with age, especially after age 50, that is a problem; when an individual with an inherited blood clotting disorder or women who take hormones are not conscious of their increased risk, that is a problem; when users of tobacco, or persons significantly overweight, remain unaware that smoking and obesity are risk factors for DVT and PE, it is a problem.

Accordingly, Improving Health Literacy is another OSG priority.

It should also be clear that health literacy includes making sure that every health professional

is fully aware of how we understand DVT and PE today:

Does every practitioner properly appreciate that our concepts of DVT and PE have changed?

Does every caregiver recognize these conditions usually represent a chronic illness, analogous to Coronary Artery Disease (CAD) or diabetes?

If we are not certain they do, then improving care of PE/DVT will not be as successful as it should be.

It is nonetheless unsettling to realize that DVT and PE are still far under-recognized, under-treated, and under prevented.

Building on What We Know

The good news is that we do know how to prevent both. Earlier, I cited data reflecting the disturbing failure to diagnose PE relative to the large number detected post-mortem.

Of course, providers should assess our patients for the development of VTE and then treat the patient when a DVT or PE occurs.

However, the problem with such an approach is that VTE diagnosis may be difficult and often goes undetected until it is too late. Studies have also shown that at autopsy, approximately 63% of DVT cases were clinically undiagnosed.

The 2001 ACCP Consensus Conference publication states that it is inappropriate to wait for the symptoms and then rely on the diagnosis and treatment of established VTE.
Moreover, the Institute of Medicine (IOM) noted in 1999 that failure to provide appropriate prophylaxis for DVT/PE is a hospital error.

NQF Guidance

So what available evidence do we have to clue us into, or point to, the types of patients who are at risk for VTE that enter our hospitals?

To answer this question, we can turn to the National Quality Forum for some practical advice. The NQF has issued a consensus report that details 30 healthcare practices that should be

universally utilized in applicable clinical care settings to reduce the risk of harm to patients.

Although this set of safe practices is not intended to capture all activities that might reduce adverse healthcare events, it has been carefully reviewed and endorsed.

From the NQF consensus report, it is recommended that patients should be evaluated upon admission, and regularly thereafter, for the risk of developing deep vein thrombosis or venous thromboembolism.

Furthermore, we should be utilizing clinically appropriate methods to prophylax against DVT which may lead to PE.

Put another way, we need to be looking at patients that enter our institutions for their respective risk of developing VTE, take the necessary steps to prevent VTE with appropriate strategies, and recognize that such an activity would improve quality of patient care, preserve countless lives and save money.

This is consistent with recommendations jointly made in 2004 by the NQF in concert with the Joint Commission of the Accreditation of Healthcare Organization (JCAHO) as part of a collaborative DVT Prevention and Care Project. This project recommended that health care organization: 1) develop and standardize performance measures for the prevention, as well as the care, of deep vein thrombosis (DVT); and 2) To develop organizational policies and procedures, care practices, and appropriate improvement interventions.

The JCAHO-NQF 2006 policy statement also focuses on evaluation and performance measurement such as: measuring the percentage of surgery patients with recommended prophylaxis ordered; and implementing consensus practice guidelines is the responsibility of every hospital and teaching program and for many of you in the room.

Consensus

Individually and together, I think these consensus standards reflect a large amount of agreement on how to prevent VTE. You with the NATF and staff at this and other area hospitals, with your record of leadership, are positioned more than most to make the greatest difference.

You, more than most, can prevent DVT and PE. As you do, the human, social and economic

benefits will be immense.

As I close, I want to share a vision of the future for DVT/PE prevention and management.

That vision is one of a future when prospective patients whose knowledge of (*and healthy respect for*) the risks associated with for DVT, PE, and venous disease is as complete as it should be.

It is a future when evidence-based practices for screening, diagnosing, treating, and preventing DVT/ PE are clearly understood and routinely applied by all medical professionals in all settings.

It is a not-far-off era when discoveries relevant to DVT and PE are regularly and expeditiously integrated into clinical practice.

It is a future when the efforts of organizations like NATF, clinicians, researchers, regulators and others are all going in the same direction on prevention of DVT and PE.

As the Call to Action makes clear, we know more than enough to move forward with confidence now. We know more than enough to redouble our commitment to translate the dynamic science of venous disease - as promptly as new findings emerge - into risk reduction and a steadily improving ability to prevent DVT and PE.

Our every success will have the collective effect of increasing the years and quality of life of perhaps thousands of people whose names we may never know. I can scarcely imagine a greater reward.

I know you will join me in pursuing this grand possibility.