

# AF Stat™ Call to Action for Atrial Fibrillation

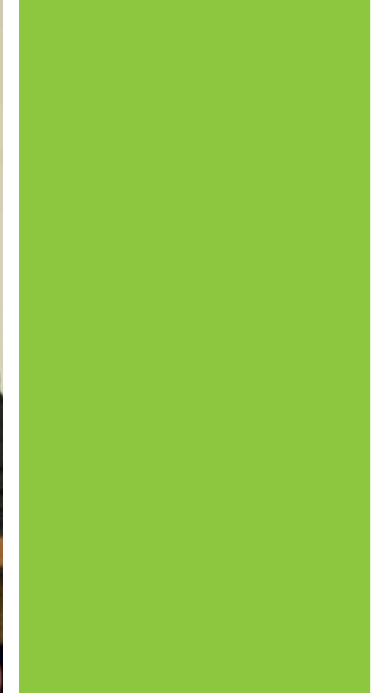


## Improving Awareness and Patient Care

*AF Stat™: A Call to Action for Atrial Fibrillation* and sanofi-aventis U.S. LLC would like to thank Medical Chair, Eric N. Prystowsky M.D., and Public Health Advisor, the National Forum for Heart Disease & Stroke Prevention for providing help and guidance in this call to action.



*AF Stat™: A Call to Action for Atrial Fibrillation* is an initiative sponsored by sanofi-aventis, U.S. LLC.



## Contents

### FOREWORD

*A message from Senator William Frist, M.D.* ..... page 04

Executive Summary ..... page 06

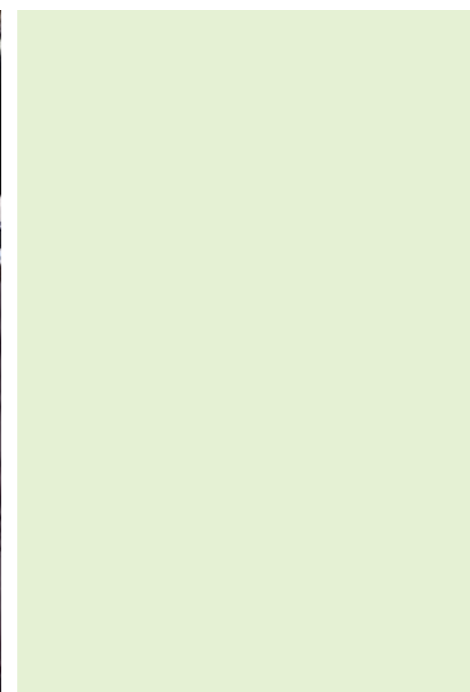
Overview: AFib — A Chronic Health Epidemic ..... page 08

AFib: Time for Action ..... page 12

*AF Stat* Recommendations ..... page 14

Endnotes ..... page 19

Acknowledgments ..... page 20



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## FOREWORD: A message from Senator William Frist, M.D.

For far too long, atrial fibrillation (AFib) has flown below the radar of many healthcare professionals, policymakers and the public. Despite the fact that AFib currently affects 2.5 million Americans and costs our nation \$6.5 billion in medical expenses, its impact and consequences have not been fully translated or prioritized. There is much work to be done on a number of fronts — as I've learned firsthand professionally, politically and personally.

Professionally, I diagnosed AFib as a medical student and described its pathophysiology, but I had little understanding of its association with other clinical conditions. As a cardiac surgeon, I appreciated how important it was just after surgery to keep the heart in normal sinus rhythm to maximize left ventricular function and heart performance. But for the most part, other cardiovascular diseases, such as atherosclerosis, heart attack and stroke, overshadowed AFib.

Politically, during my time in Congress (1995 – 2007), I was one of only two physicians in the Senate, and was a lead author of legislation for a prescription drug benefit (Part D) in Medicare. Yet, there were no advocates talking to me about AFib, even though the risk for the disease increases with age. In hindsight, I wish we had taken advantage of that opportunity to encourage an earlier dialogue about this costly, progressive disease that disproportionately affects the growing Medicare population.

Personally, the impact of AFib hit home when two of my immediate family members, who had no apparent risk factors for AFib, were diagnosed with the disease. My active and upbeat brother-in-law felt discouraged and helpless as he struggled to manage his AFib. And my older brother, physically active throughout his life, grew increasingly frustrated when AFib caused him to limit his daily routine. From my conversations with each of them, I learned that ways to manage the disease were not obvious, and reliable and accurate educational resources were hard to find.

It was this personal experience that forced me to re-examine AFib and see that much needs to be done to raise awareness of this disease on the public health agenda. This is why I am part of *AF Stat™: A Call to Action for Atrial Fibrillation*. This initiative is focused on creating urgency surrounding AFib and improving the health and well-being of people affected by it.

Why the urgency? Here are a few key reasons:

First: high costs. AFib can be costly, driving up health system expenses and increasing hospitalization and emergency care services. Today, because AFib increases healthcare utilization, medical costs for a person with AFib are as much as five times higher than those without the disease. We have to reverse this trend if there is any way we are going to manage the influx of people enrolling in the Medicare program.

Second: worse health. With AFib comes not only an increased risk of stroke but also a deterioration of other cardiovascular conditions. AFib can be a disease accelerator of other illnesses as well. Perhaps most distressing is that people with AFib are twice as likely to die from any cause than those without the disease. The current estimate of 2.5 million Americans with AFib is expected to double as our population ages. Now is the time to better prepare our healthcare system to deal with this chronic disease and improve the quality of life of those with AFib.

And third: life on the sidelines. AFib compromises people's quality of life, keeping them from enjoying their family and social activities, and can even lead to forced retirement. In fact, one study shows that various measures of quality of life are lower in people with AFib than in those who have suffered a heart attack.

Given all of this, it's clear that we must transform how we approach AFib — dramatically and quickly. This demands that we create a movement where people can collaborate, raise awareness and take action, which is at the heart of *AF Stat*. The initiative and this document reflect the coming together of diverse stakeholders to build an understanding of AFib and help solve the key challenges that AFib presents.

This *AF Stat Call to Action* is a good first step. I encourage you to read it, share it with others and explore ways to fulfill it. Working together, we can help improve the lives of those with AFib and change outcomes for those with the disease, as well as for our healthcare system.

A handwritten signature in black ink that reads "William H. Frist". The signature is written in a cursive, flowing style.

William H. Frist, M.D.  
Former Majority Leader, U.S. Senate

## AF Stat Call to Action: Executive Summary

### Purpose

This document is a call to action that describes gaps and recommends priority actions to enhance the approach to and management of atrial fibrillation and improve patient outcomes.

### Atrial Fibrillation: A Call to Action for Improving Awareness and Patient Care

Atrial fibrillation (AFib) is a condition in which the two upper chambers of the heart (the atria) beat in a rapid, uncoordinated and disorganized fashion, resulting in a very irregular and frequently fast heart rate. When the heart's atria are in AFib they quiver instead of beating effectively.

The most common heart arrhythmia, AFib is associated with a five-fold increase in risk for stroke; worsens underlying cardiovascular disease; and doubles the risk of all-cause mortality. It also costs the nation \$6.65 billion annually, much of which can be attributed to the increased hospital in-patient, emergency and medical services utilization rates for people with AFib. In fact, of all arrhythmias, AFib results in the most hospitalizations.<sup>1</sup>

### AF Stat™: A Call to Action for Atrial Fibrillation

is a collaboration between healthcare leaders and organizations working to improve the health and well-being of people affected by atrial fibrillation. *AF Stat* will raise awareness of AFib as a complex, costly, progressive and often debilitating disease. It will call for and help promote a change in attitudes and behaviors to enhance AFib understanding, diagnosis and management. *AF Stat* is an initiative sponsored by sanofi-aventis U.S. LLC.

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AFib (an irregular heartbeat) is a serious cardiovascular disease and the most common arrhythmia. It is a leading risk factor for stroke and it costs the nation \$6.65 billion annually in increased hospitalization and other healthcare services. Enhancing education, treatment and management of AFib can help improve health, save lives and reduce healthcare costs.

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## AF Stat Call to Action: Recommendations

In order to improve health, save lives and reduce the burden of atrial fibrillation on our nation, *AF Stat* recommends four priority actions:

### Policy and Advocacy

#### Strategy

Assess the broad impact of AFib and its relevance to key policy decisions related to healthcare reform, prevention of cardiovascular disease progression and chronic disease management priorities, noting key opportunities for reducing AFib-related costs.

#### Expected Outcome

Key stakeholders fully understand the health risks associated with AFib and the importance of comprehensive management.

### Management

#### Strategy

Create a sense of urgency among healthcare professionals to screen, identify, diagnose and comprehensively manage people who currently have or are at risk for AFib.

#### Expected Outcome

Achieve accurate diagnosis and comprehensive management across medical practices and between medical specialties.

### Education

#### Strategy

Improve recognition of AFib as an increasingly prevalent, costly and progressive disease with often debilitating symptoms that can result in significant morbidity and reduced quality of life.

#### Expected Outcome

Tools for all AFib stakeholders are available to facilitate greater understanding about the risks and the need for comprehensive early management, and to heighten awareness of this costly disease.

### Quality

#### Strategy

Promote awareness, understanding and implementation of AFib best practices across specialties to enhance quality of care for patients and the measurements of success.

#### Expected Outcome

Best practices in AFib management are defined, clinical practice guidelines are aligned and performance measures are in place to improve patient outcomes.

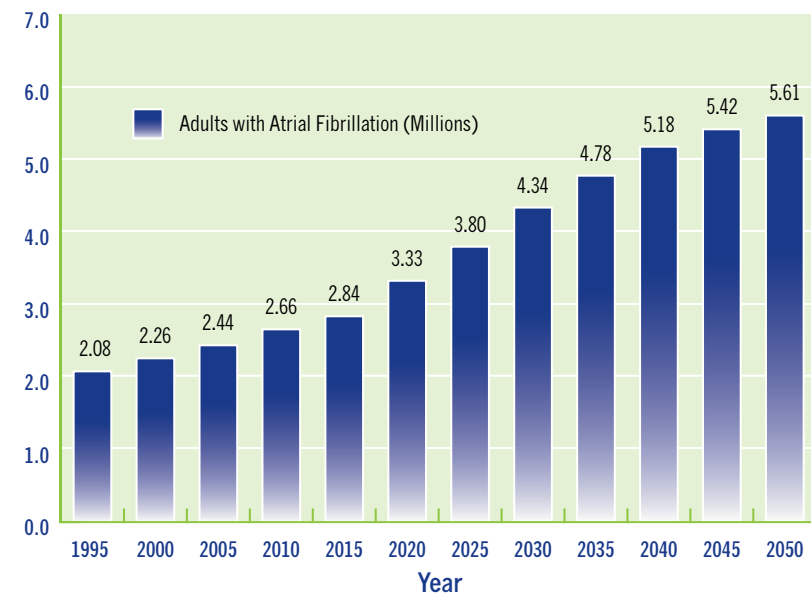
## Overview: AFib — A Chronic Health Epidemic

Atrial fibrillation is a cardiovascular disease in which the two upper chambers of the heart (the atria) beat in a rapid, uncoordinated and disorganized fashion, resulting in a very irregular and frequently fast heart rate. It occurs when the heart's two small upper chambers (the atria) quiver instead of beating effectively.<sup>2</sup>

AFib, the most common arrhythmia, is a complex, progressive and debilitating chronic disease that exacerbates other cardiovascular diseases and risks. Approximately 2.5 million Americans currently have AFib and some experts believe research indicates this number may actually be much larger.<sup>3</sup> Also, because the risk increases with age, this number is expected to rise dramatically as the U.S. population gets older.<sup>4</sup> AFib can be present with, be affected by and serve as a contributing factor in a wide range of cardiovascular conditions. Risk factors for cardiovascular disease (e.g., hypertension and diabetes) also predispose patients to AFib. Additionally, AFib may increase the risk of cardiovascular disease. See *Figures 1 and 2.*

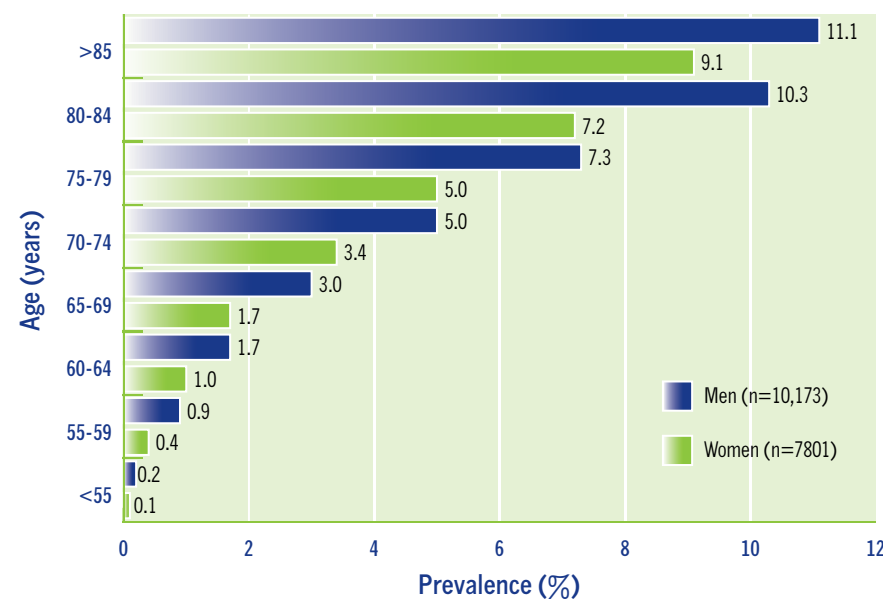
**Figure 1.**  
**Projected Increase in Atrial Fibrillation Prevalence<sup>5</sup>**

*Adapted from Go et al. Study*



**Figure 2.**  
**Atrial Fibrillation Prevalence by Age and Gender<sup>6</sup>**

*Adapted from Kaiser Permanente ATRIA Study*



### Possible Risk Factors for AFib Include:

- High blood pressure<sup>7</sup>
- Heart valve disease<sup>7</sup>
- Coronary artery disease<sup>7</sup>
- Obesity<sup>8</sup>
- Diabetes<sup>9</sup>
- Heart failure<sup>10</sup>
- Sleep apnea<sup>11</sup>
- Hyperthyroidism\*
- Age<sup>7</sup>
- Family history<sup>12</sup>

Episodes of AFib may come and go (this is called paroxysmal AFib). Over time, they may last longer and become more persistent, requiring medication or electrical treatment to stop them. Permanent AFib is less responsive to treatment and may require more extensive medical intervention in order to restore a normal rhythm.<sup>13</sup>

Not all people experience AFib symptoms or recognize them. For those who do, the symptoms experienced may vary from mild to severe. Common symptoms include:

- Tiredness or fatigue
- Feeling of overall weakness
- Palpitations (rapid, irregular, “flopping” movement or pounding sensation in the chest/neck)
- Irregular heartbeat
- Shortness of breath
- Dizziness
- Lightheadedness
- Chest pain or discomfort

\*AFib can be a symptom of this thyroid disease and therefore correctable upon treating the hyperthyroidism.

Episodes of AFib may come and go (this is called paroxysmal AFib). Over time, they may last longer and become more persistent, requiring medication or electrical treatment to stop them. Permanent AFib is less responsive to treatment and may require more extensive medical intervention in order to restore a normal rhythm.

### Many Patients with Heart Disease, and Specifically AFib, Have Significantly Impaired Quality of Life (QoL).<sup>21</sup>

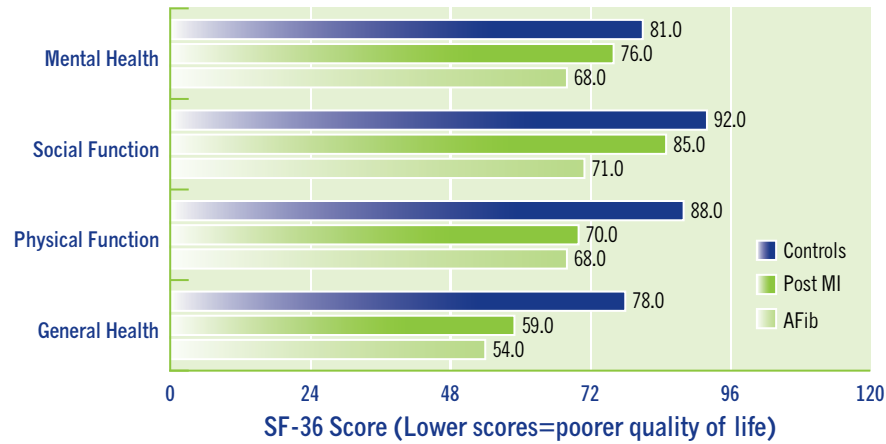
The impact of AFib on QoL varies, but generally people with AFib have significantly reduced QoL, including poorer general and mental health, and poorer physical and social functioning, when compared with people without AFib.<sup>22</sup> See Figure 3

### AFib has Significant Morbidity and Mortality Consequences.

- AFib is an independent risk factor for other cardiovascular diseases<sup>14,15</sup> and increases the risk of stroke five-fold.<sup>16</sup>
- AFib approximately doubles the risk of all-cause mortality.<sup>17</sup>
- AFib increases risks as patients move along the continuum of cardiovascular disease.<sup>18,19</sup>
- Hospitalization due to AFib has increased two-fold to three-fold in recent years.<sup>20</sup>

**Figure 3.**  
Atrial Fibrillation Adversely Affects Quality of Life<sup>24</sup>

Adapted from Dorian et al. Study



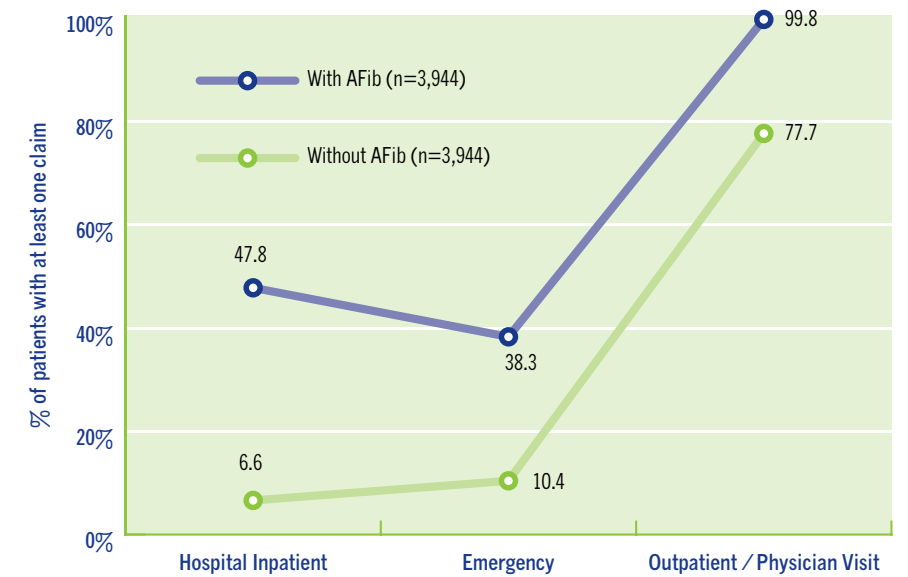
### AFib’s Impact on Our Healthcare System

AFib is a costly disease that substantially increases utilization rates for in-patient, emergency and other medical services.<sup>24</sup> See Figure 4

- Per-patient medical costs have been found to be five-fold higher in patients with AFib than in those without the disease.<sup>25</sup> See Figure 5
  - Total AFib-attributable costs are estimated at \$6.65 billion.<sup>26</sup>
  - Per hospital stay for AFib is \$8,412.<sup>27</sup>
- Costs disproportionately impact Medicare and Medicaid budgets.<sup>28,29</sup>

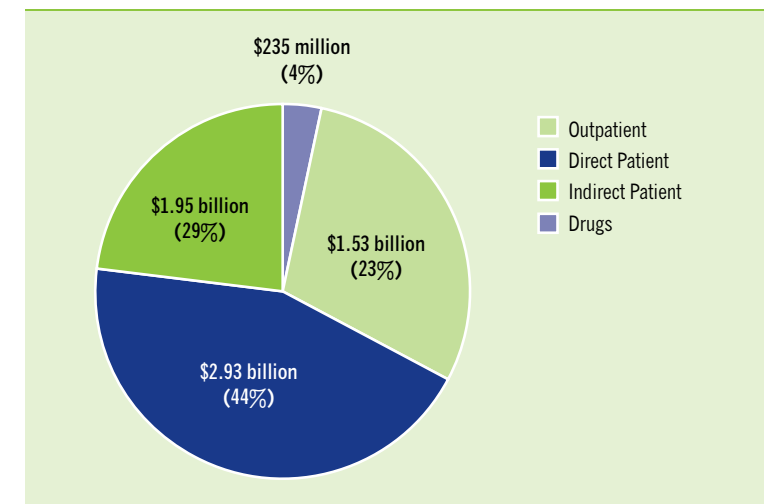
**Figure 4.**  
Medical Service Utilization Patterns of AFib and non-AFib Study Samples<sup>30</sup>

Adapted from Wu et al. Study



**Figure 5.**  
Distribution of \$6.65 Billion (2005 U.S. dollars)<sup>31</sup> in Annual Atrial Fibrillation Treatment Costs

Adapted from Coyne et al., 2006



## AFib: Time For Action

There is a lack of urgency to change the status quo surrounding AFib, according to interviews with the broad spectrum of organizations and individuals participating in *AF Stat™: A Call to Action for Atrial Fibrillation* [see list page 20]. These interviews revealed that this lack of awareness might be due to the following key barriers:

- **Limited understanding** about the array of potential AFib consequences, including: disease progression from episodic to a permanent state, structural and electrical remodeling of the heart, worsening of other cardiovascular diseases, increased hospitalizations and/or death
  - Often, key stakeholders do not fully understand the health risks associated with AFib and the importance of comprehensive management.
  - Currently available information about AFib is not adequately reaching or sufficiently educating patients.
- **Disconnected dialogue** between AFib patients and healthcare professionals about the disease, including its symptoms, management and treatment options
  - Restricted time with patients is a widespread and ongoing problem in our healthcare system and prevents healthcare professionals from having detailed discussions with patients.<sup>33</sup> Experts believe this is exacerbated in the treatment of patients with AFib due to the complexity of AFib management and the high prevalence of co-morbidities that often take precedence in patient/physician discussions.

- **Lack of comprehensive and consistent management** across medical practices and specialties treating AFib patients
  - Competing priorities in managing cardiovascular disease make it difficult for healthcare professionals to manage AFib comprehensively, and often result in an exclusive focus on stroke prevention.
  - Professional organizations note that caring for the AFib patient is complex, requiring a clear management plan across multiple providers.

Overall, experts interviewed agreed there is a need for enhancing the availability of and access to education, resources and tools to help improve the AFib understanding, dialogue and management.

### *AF Stat™: A Call to Action for Atrial Fibrillation*

is a collaboration between healthcare leaders and organizations working to improve the health and well-being of people affected by atrial fibrillation.

*AF Stat* will raise awareness of AFib as a complex, costly, progressive and often debilitating disease. The program also calls for helping promote a change in attitudes and behaviors to enhance AFib understanding, diagnosis and management.

Achieving the vision of *AF Stat* and reducing the burden of atrial fibrillation on patients and the healthcare system will require a comprehensive public health strategy and a sustained commitment to its implementation. Such a strategy will guide the needed action, from accurate diagnosis to appropriate management of the disease.

The public health advisor to *AF Stat* is the National Forum on Heart Disease & Stroke Prevention (National Forum). Comprised of more than 80 organizations, the National Forum was established in 2003 to implement *A Public Health Action Plan to Prevent Heart Disease and Stroke*, a strategy that provides a comprehensive public health strategy and a framework to guide health practitioners' and policy makers' actions in heart disease and stroke prevention.

To proceed from a comprehensive public health strategy to a practical plan of action necessitates that specific recommendations be developed and concrete action steps be proposed. Accordingly, the *AF Stat Call to Action* aligns with the National Forum's recommendations. The AFib action steps and expected outcomes are presented in a complementary format, reflective of the larger umbrella of goals and strategies defined in *A Public Health Action Plan to Prevent Heart Disease and Stroke*.

This *AF Stat Call to Action* was developed based on comprehensive research, including in-depth discussions and interviews with more than 40 individuals representing 24 different advocacy, medical/professional, quality, aging and cardiovascular organizations. These organizations also participated in an *AF Stat* working group, which convened for the first time on May 18, 2009 to help finalize the *AF Stat Call to Action* and begin brainstorming its implementation.

In addition to the National Forum, guidance on the document and the initiative was provided by the *AF Stat* Medical Chair, Eric N. Prystowsky, M.D. and an *AF Stat* planning committee including representatives from the American College of Cardiology, the Heart Rhythm Society and StopAfib.org.

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*A Public Health Action Plan to Prevent Heart Disease and Stroke* embraces the two overarching goals of *Healthy People 2010*<sup>34</sup>: increasing the quality and number of years of healthy life, and eliminating disparities. Major discrepancies are widely recognized in the burden of heart disease and their risk factors among different racial and ethnic groups; however, relevant data for some groups are scant or non-existent because data have not been collected to address this concern adequately.

In addition, the data is also focused on the *Healthy People 2010* goals that are specific to heart disease and stroke: prevention of risk factors, detection and treatment of risk factors, early identification and treatment of heart attacks and strokes, and prevention of recurrent cardiovascular events.

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# AF Stat Recommendations

## Policy and Advocacy

### Strategy

Assess the broad impact of AFib and its relevance to key policy decisions related to healthcare reform, prevention of cardiovascular disease progression and chronic disease management priorities, noting key opportunities for reducing AFib-related costs.

### Activity

#### Federal

- Demonstrate the overall value of effective, comprehensive AFib management, including:
  - Create a value analysis of patient costs (Medicare, Medicaid and other payers) over time, including re-hospitalization and long-term care.
  - Further examine the role of AFib in cardiovascular disease, including progression, safety and quality consequences.
  - Feature the impact of guideline adherence and early intervention to prevent progression on AFib patient and system costs.
  - Demonstrate the value of more comprehensive AFib management and examine comparative effectiveness in randomized trials of treatments and procedures.
- Highlight the issue that better management of chronic conditions like AFib may substantially reduce healthcare costs in debates on healthcare reform, comparative effectiveness and CMS policies.
- Further explore and research the potential of primary prevention of AFib as well as the impact of secondary preventative efforts on the progression of cardiovascular disease, specifically by obtaining a better understanding of the impact of traditional risk factors (e.g., obesity, hypertension, etc.) and how modifying them may affect AFib.
- Encourage establishment of a national heart disease and stroke surveillance system (e.g., registry efforts) and include AFib as an essential element. The first step is calling for baseline AFib measurements, including prevalence data.
- Increase government resources for AFib consumer and healthcare professional educational efforts.
- Encourage the Surgeon General to examine AFib as part of larger reports on heart disease and stroke.
- Encourage CMS to adopt policies to address AFib management and care coordination, including development and implementation of quality measures for Medicare among others (e.g., National Quality Forum).
  - Examine payment issues around bundled coding and explore development of an observation code for AFib.
  - Evaluate the cost benefit of avoiding admitting patients that could be better served by observation.
- Advocate CMS to incorporate quality measures and quality improvement around AFib into Quality Improvement Organizations (QIO) scope of work.
- Research demographic and ethnic differences surrounding AFib.

#### State

- Identify if there are key states currently bearing, or likely to bear in the future, an inordinate AFib burden, including high prevalence, high rates of stroke and hospitalization due to AFib.
- Identify regional variances in care for AFib that impact both clinical outcomes and costs (The Dartmouth Atlas of Health Care).
- Work with State Stroke Advisory Committees and state public health programs to include a focus of AFib within broader cardiovascular and stroke initiatives.
- Evaluate existing public health programs for effectiveness in screening for AFib.

#### Employer

- Demonstrate the impact of AFib on employers in the U.S. in terms of employee (patient and caregiver) absenteeism, forced retirement, reduced productivity and overall health insurance costs.
- Educate employers on what information and resources are available from the state and federal databases and public health programs.

#### Patient

Better define the economic and patient quality of life burden of AFib, (e.g., medical debt, employment, caregiving statistics, clinical burden, etc.).

### Expected Outcome

Key stakeholders fully understand the health risks associated with AFib and the importance of comprehensive management.

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*“We need to understand AFib and improve its outcomes. It should be at the top of every doctor’s mind who sees such a patient. We need to raise awareness by letting people know what it’s about and the options available to them.”*

*-Eric N. Prystowsky, M.D.*

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## Education

### Strategy

Improve recognition of AFib as an increasingly prevalent, costly and progressive disease with often debilitating symptoms that result in significant morbidity and reduced quality of life.

### Activity

- Further identify the educational needs of different stakeholders (patients, caregivers, healthcare professionals, policy makers, employers, payers, medical students) in order to tailor information accordingly.
- Develop comprehensive and tailored educational tools to address the needs of AFib patients in a clear, culturally-relevant way to drive appropriate behavior (e.g., compliance with medical recommendations), featuring:
  - Concerns of morbidity and mortality.
  - Appropriate management, including risks and benefits of available treatments and medical procedures.
  - Quality of care.
  - Quality of life.
- Educate key stakeholders about the disease, risk factors, co-morbidities and its far-reaching impact, beyond stroke, such as:
  - Cost impact on federal and state budgets (e.g., Medicare, Medicaid, etc.).
  - Employer costs.
  - Recurrent hospitalization rates.
  - Complications and quality of care.
- Prioritize AFib education on local levels through partnerships and outreach among:
  - State public health programs (e.g., National Area Health Education Centers, State Stroke Advisory Committees and Multi-State Stroke Networks).
  - Patient and healthcare professional organizations' regional and state offices.
  - Hospital and outpatient clinic administrators.
- Identify opportunities to include AFib education within programs and tools about other co-morbidities and the disease state.
- Facilitate patient self-management and compliance by providing appropriate tools and helping them navigate the Internet to access relevant, credible information.

### Expected Outcome

Tools for all AFib stakeholders are available to facilitate greater understanding about the risks and the need for comprehensive early management and to heighten awareness of this costly disease.

## Management

### Strategy

Create a sense of urgency among healthcare professionals to screen, identify, diagnose and comprehensively manage people who currently have or are at risk for AFib.

### Activity

- Demonstrate the gaps in knowledge about AFib to motivate changes in behavior in diagnosis/identification of the disease, as well as management:
  - Identify the need for AFib information and turn knowledge into action.
- Demonstrate the need for healthcare professionals to identify management approaches for the right patient at the right time, noting the risks of not doing so:
  - Tailor materials and resources for specific healthcare providers (e.g., nurse practitioners, physician assistants, nurses and physicians in primary care (PCPs), registered pharmacists, internal medicine practitioners (IMs), cardiologists, electrophysiologists (EPs), thoracic surgeons, hospitalists, emergency room physicians, etc).
  - Prioritize AFib education for healthcare professionals, beginning with graduate/medical school through residency and beyond.
  - Facilitate communication among healthcare professionals to promote a team-based approach to care that ensures consistent quality across healthcare, professional and medical specialties.
  - Provide educational tools that translate treatment guidelines into real-world usability.
- Improve the quality of the AFib dialogue between healthcare professionals and their patients.
  - Develop tools to help patients monitor and report their progress to their healthcare professional to improve compliance and enhance productivity of in-office conversation (e.g., patient diary).
  - Assist with transitions of care so patients understand the importance of compliance, irrespective of their primary source(s) of AFib education and ongoing care (e.g., PCPs, IMs, cardiologists, EPs, etc.).
- Educate healthcare professionals on the value of early, comprehensive management as well as the need for a long-term commitment to AFib care.
  - Encourage physicians and nurses to consider AFib care management and educational implications beyond stroke.
  - Incorporate AFib training for advanced (life-saving) personnel.
- Highlight the need and increase involvement of the healthcare team, including NPs, PAs, RNs, RPHs, PCPs, IMs, cardiologists, EPs, thoracic surgeons, hospitalists and emergency medical specialists in managing and educating patients over the long term.
  - Offer additional training to strengthen AFib expertise among allied health professionals.

### Expected Outcome

Achieve accurate diagnosis and comprehensive management across medical practices and between medical specialties.

## Quality

### Strategy

Promote awareness, understanding and use of clinical guidelines across specialties to enhance quality of care for AFib patients and the measurements of success.

### Activity

- Define best practices in AFib management (e.g., clinical research, comparative effectiveness, compliance, team-based approach and health services delivery).
  - Compile an AFib inventory.
  - Prioritize research agenda.
- Implement comprehensive quality metrics for AFib, including performance measures to increase value and improve clinical outcomes.
  - Support systems of care versus a silo approach to encourage team-based approach to AFib management.
- Identify need, feasibility and means to track patient/caregiver and provider satisfaction related to AFib management.
  - Evaluate current levels of treatment compliance and opportunities to improve.
- Encourage state coalitions focused on medical quality issues to address AFib diagnosis and management outside of Medicare.

### Expected Outcome

Best practices in AFib management are defined, clinical practice guidelines are utilized and performance measures are in place to improve patient outcomes.

**Mary George**, M.D., Centers for Disease Control and Prevention, Division for Heart Disease and Stroke Prevention, and **Julie Harvill**, National Forum for Heart Disease & Stroke Prevention



Best practices in AFib management are defined, clinical practice guidelines are utilized and performance measures are in place to improve patient outcomes.

## Endnotes

- <sup>1</sup>Wattigney, W, Mensah, G, Croft, J. Increasing Trends in Hospitalization for Atrial Fibrillation in the United States, 1985 Through 1999. *Circulation*. 2003. Available at: <http://www.circ.ahajournals.org/cgi/content/abstract/108/6/711>.
- <sup>2</sup>American Heart Association. Atrial Fibrillation, Available at [www.americanheart.org/presenter.jhtml?identifier=4451](http://www.americanheart.org/presenter.jhtml?identifier=4451). Last accessed June 9, 2008.
- <sup>3</sup>Neary, W. Atrial fibrillation is more common than suspected. University of Washington News, April 9, 2003. Available at: <http://uwnews.org/article.asp?articleID=2102>. Last accessed June 16, 2009.
- <sup>4</sup>Go AS, Prevalence of Atrial Fibrillation in Adults: National Implications for Rhythm Management and Stroke Prevention: The Anticoagulation and Risk Factors in Atrial Fibrillation (ATRIA) Study. *JAMA*, May 9, 2001-Vol 285, No. 18.
- <sup>5</sup>Go AS, Hylek EM, Phillips KA, et al. Prevalence of diagnosed atrial fibrillation in adults: national implications for rhythm management and stroke prevention: the Anticoagulation and Risk Factors In Atrial Fibrillation (ATRIA) Study. *JAMA*. 2001;285:2370-2375.
- <sup>6</sup>Go AS, Hylek EM, Phillips KA, et al. Prevalence of diagnosed atrial fibrillation in adults: national implications for rhythm management and stroke prevention: the Anticoagulation and Risk Factors In Atrial Fibrillation (ATRIA) Study. *JAMA*. 2001;285:2370-2375.
- <sup>7</sup>Shea, J. A Patient's Guide to Living with Atrial Fibrillation. *Circulation*. 2008; 117:e340-e343. Available at <http://circ.ahajournals.org/cgi/content/full/117/20/e340>. Last accessed July 3, 2008.
- <sup>8</sup>ACC/AHA/ESC. 2006 Guidelines for the Management of Patients with Atrial Fibrillation. *Circulation*. 2006; 114: 700-752.
- <sup>9</sup>American Heart Association. Living with atrial fibrillation. Available at <http://www.americanheart.org/presenter.jhtml?identifier=9>. Last accessed July 3, 2008.
- <sup>10</sup>Shea, J. A Patient's Guide to Living with Atrial Fibrillation. *Circulation*. 2008; 117:e340-e343. Available at <http://circ.ahajournals.org/cgi/content/full/117/20/e340>. Last accessed July 3, 2008.
- <sup>11</sup>Mayo Clinic. Sleep Apnea: Can It Cause Heart Disease? Available at <http://www.mayoclinic.com/health/sleep-apnea/HB00095>. Last accessed May 5, 2009.
- <sup>12</sup>Fox, C et al. Parental Atrial Fibrillation as a Risk Factor for Atrial Fibrillation in Offspring. *JAMA*. 2004; 292: 1175
- <sup>13</sup>HRS Information for Patients <http://www.hrsonline.org/PatientInfo/HeartRhythmDisorders/AFib/index.cfm>
- <sup>14</sup>Fuster V, Rydén LE, Cannom DS, et al. ACC/AHA/ESC 2006 Guidelines for the Management of Patients with Atrial Fibrillation: a report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines and the European Society of Cardiology Committee for Practice Guidelines (Writing Committee to Revise the 2001 Guidelines for the Management of Patients With Atrial Fibrillation): developed in collaboration with the European Heart Rhythm Association and the Heart Rhythm Society. *Circulation*. 2006;114:e257-e354
- <sup>15</sup>Stewart S, Hart CL, Hole DJ, McMurray JJ. A population-based study of the long-term risks associated with atrial fibrillation: 20-year follow-up of the Renfrew/Paisley study. *Am J Med*. 2002; 113:359-364.
- <sup>16</sup>Wolf PA, Abbott RD, Kannel, WB. Atrial fibrillation as an independent risk factor for stroke: the Framingham Study. *Stroke*. 1991; 22:983-988.
- <sup>17</sup>Benjamin EJ, Wolf PA, D'Agostino RB, Silbershatz H, Kannel WB, Levy D. Impact of atrial fibrillation on the risk of death: the Framingham Heart Study. *Circulation*. 1998; 98:946-952.
- <sup>18</sup>Fuster V, Rydén LE, Cannom DS, et al. ACC/AHA/ESC 2006 Guidelines for the Management of Patients with Atrial Fibrillation: a report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines and the European Society of Cardiology Committee for Practice Guidelines (Writing Committee to Revise the 2001 Guidelines for the Management of Patients With Atrial Fibrillation): developed in collaboration with the European Heart Rhythm Association and the Heart Rhythm Society. *Circulation*. 2006;114:e257-e354.
- <sup>19</sup>Benjamin EJ, Wolf PA, D'Agostino RB, Silbershatz H, Kannel WB, Levy D. Impact of atrial fibrillation on the risk of death: the Framingham Heart Study. *Circulation*. 1998;98:946-952.
- <sup>20</sup>Wattigney WA, Mensah GA, Croft JB. Increasing trends in hospitalization for atrial fibrillation in the United States, 1985 through 1999: implications for primary prevention. *Circulation*. 2003;108:711-716.
- <sup>21</sup>Dorian P, Jung W, Newman D, et al. The impairment of health-related quality of life in patients with intermittent atrial fibrillation: implications for the assessment of investigational therapy. *J Am Coll Cardiol*. 2000;36:1303-1309.
- <sup>22</sup>Dorian P, Jung W, Newman D, et al. The impairment of health-related quality of life in patients with intermittent atrial fibrillation: implications for the assessment of investigational therapy. *J Am Coll Cardiol*. 2000;36:1303-1309
- <sup>23</sup>Dorian P, Jung W, Newman D, et al. The impairment of health-related quality of life in patients with intermittent atrial fibrillation: implications for the assessment of investigational therapy. *J Am Coll Cardiol*. 2000;36:1303-1309
- <sup>24</sup>Wu EQ, Birnbaum HG, Mareva M, et al. Economic burden and co-morbidities of atrial fibrillation in a privately insured population. *Current Medical Research and Opinion*. 2005; 21(10):1693-1699.
- <sup>25</sup>Wu EQ, Birnbaum HG, Mareva M, et al. Economic burden and co-morbidities of atrial fibrillation in a privately insured population. *Current Medical Research and Opinion*. 2005; 21(10):1693-1699.
- <sup>26</sup>Coyne KS, Paramore C, Grandy S, Mercader M, Reynolds MR, Zimetbaum P. Assessing the direct costs of treating nonvalvular atrial fibrillation in the United States. *Value Health*. 2006;9:348-356.
- <sup>27</sup>Coyne KS, Paramore C, Grandy S, Mercader M, Reynolds MR, Zimetbaum P. Assessing the direct costs of treating nonvalvular atrial fibrillation in the United States. *Value Health*. 2006;9:348-356.
- <sup>28</sup>Go AS, Hylek EM, Phillips KA, et al. Prevalence of diagnosed atrial fibrillation in adults. *JAMA*. 2001;285:2370-2375.
- <sup>29</sup>AgingStats.gov. Federal Interagency Forum on Aging. Use of Healthcare Services.
- <sup>30</sup>Wu EQ, Birnbaum HG, Mareva M, et al. Economic burden and co-morbidities of atrial fibrillation in a privately insured population. *Current Medical Research and Opinion*. 2005; 21(10):1693-1699
- <sup>31</sup>Coyne KS, Paramore C, Grandy S, Mercader M, Reynolds MR, Zimetbaum P. Assessing the direct costs of treating nonvalvular atrial fibrillation in the United States. *Value Health*. 2006;9:348-356
- <sup>32</sup>Robert M. Califf, M.D.; Christopher M. O'Connor, M.D. Blocker Therapy for Heart Failure: The Evidence Is In, Now the Work Begins. *JAMA*. 2000;283:1335-1337.
- <sup>33</sup>US Department of Health and Human Services. *Healthy People 2010: Understanding and Improving Health and Objectives for Improving Health*. 2nd ed. Vol 1. Washington, DC US Government Printing Office, November 2000.

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For more information about *AF Stat* and the *AF Stat Call to Action*, visit [www.AFStat.com](http://www.AFStat.com).

## Select Working Group Participants

- American Academy of Nurse Practitioners
- American College of Cardiology
- American College of Chest Physicians
- American College of Clinical Pharmacy
- American Heart Association
- American Society of Consultant Pharmacists
- Association for Black Cardiologists
- Centers for Disease Control and Prevention, Division for Heart Disease and Stroke Prevention
- Heart Rhythm Society
- National Alliance for Thrombosis & Thrombophilia
- National Business Coalition on Health
- National Business Group on Health
- National Council on Aging
- National Family Caregivers Association
- National Forum for Heart Disease and Stroke Prevention
- National Patient Advocate Foundation
- National Stroke Association
- Nurse Practitioner Healthcare Foundation
- Preventive Cardiovascular Nurses Association
- Society of Chest Pain Centers
- Society for Hospital Medicine
- Spirit of Women
- StopAfib.org

*The listed organizations do not necessarily endorse or support all recommendations in this plan.*