

Stroke: A Public Health Issue

**American Heart Association /
American Stroke Association
Cryptogenic Stroke Conference
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APHA Is The History Of Public Health In The US

APHA is a global **community of public health professionals and the collective voice for the health of the public**. APHA is the only organization that **combines 140 years of perspective, a broad-based constituency, and the ability to influence federal policy** to advocate for and improve the public's health.

Founded April 18, 1872

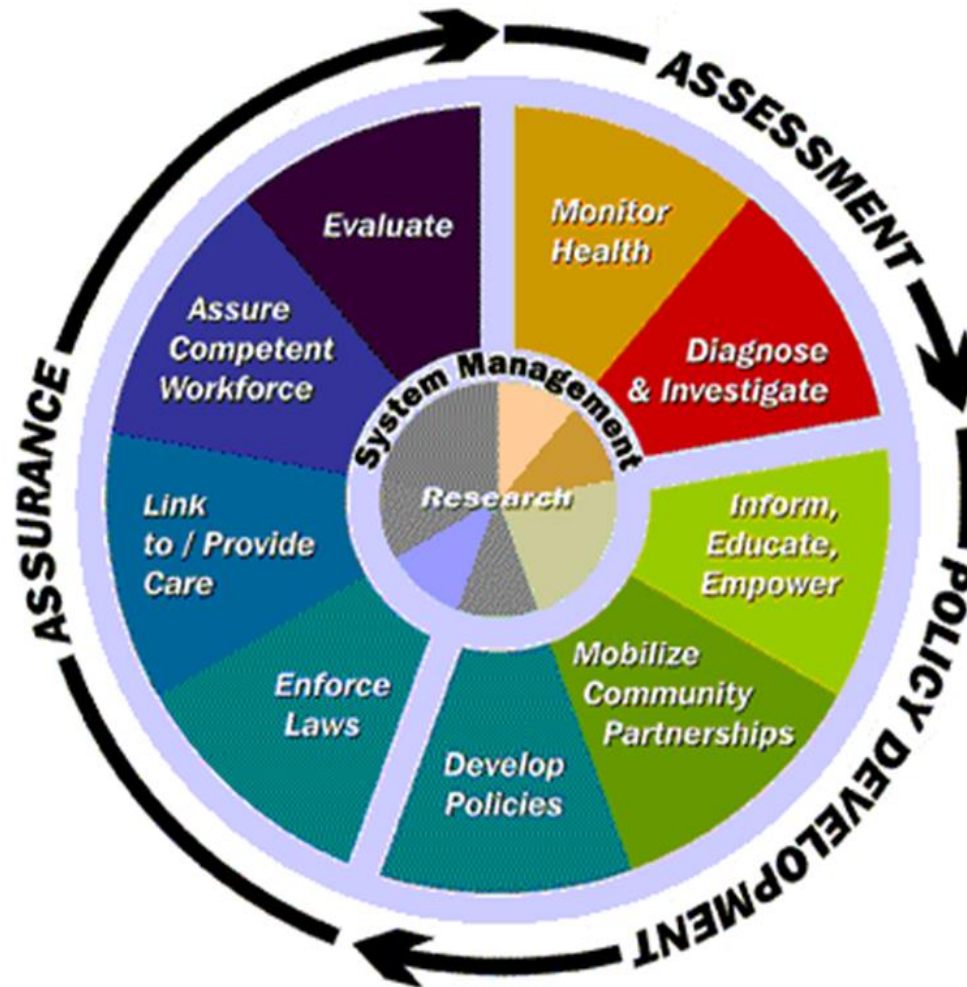


What Is Public Health?

“The science and art of preventing disease, prolonging life and promoting health through the organized efforts and informed choices of society, organizations, public and private, communities and individuals” (1920, C.E.A. Winslow).

- It is concerned with threats to health based on population health analysis
- The population in question can be as small as a handful of people or as large as the inhabitants of several continents

What Public Health Does



Definition: Population Health

“The health outcomes of a group of individuals, including the distribution of such outcomes within the group”

David Kindig, MD, PhD & Greg Stoddart, PhD

The field of population health includes health outcomes, patterns of health determinants, and policies and interventions that link these two. It is different from public health, health promotion, and social epidemiology.



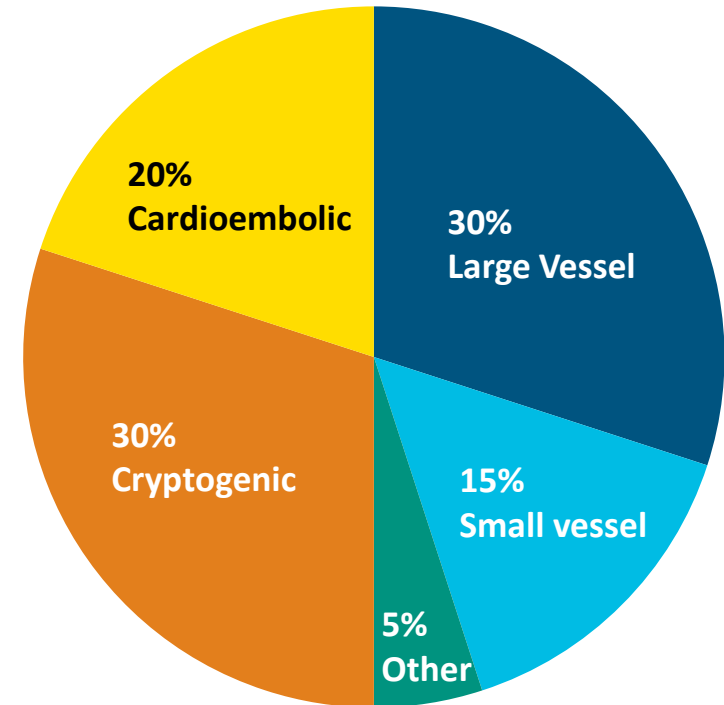
Leading Causes Of Death

- **Heart disease: 611,105**
- **Cancer: 584,881**
- **Chronic lower respiratory diseases: 149,205**
- **Accidents (unintentional injuries): 130,557**
- **Stroke (cerebrovascular diseases): 128,978**
- **Alzheimer's disease: 84,767**
- **Diabetes: 75,578**
- **Influenza and Pneumonia: 56,979**
- **Nephritis, nephrotic syndrome, and nephrosis: 47,112**
- **Intentional self-harm (suicide): 41,149**

CDC 2013

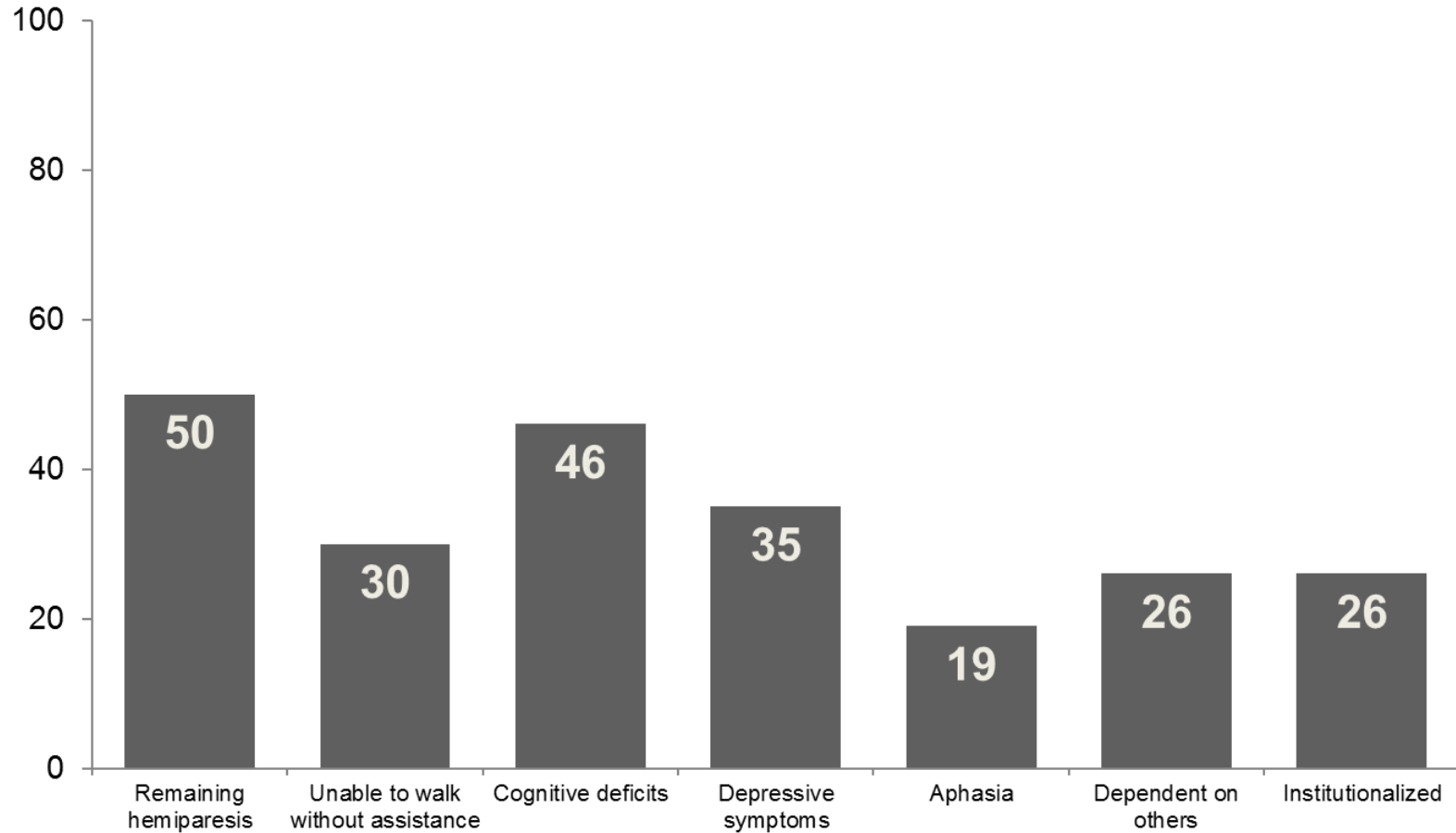
The Stroke Problem In The U.S.

- 800,000 new or recurrent strokes yearly
- \$34 Billion annual costs
- 87% ischemic; 13% hemorrhagic
- Fifth leading cause of death
- A leading cause of serious long-term disability in the US
- 200,000 are cryptogenic



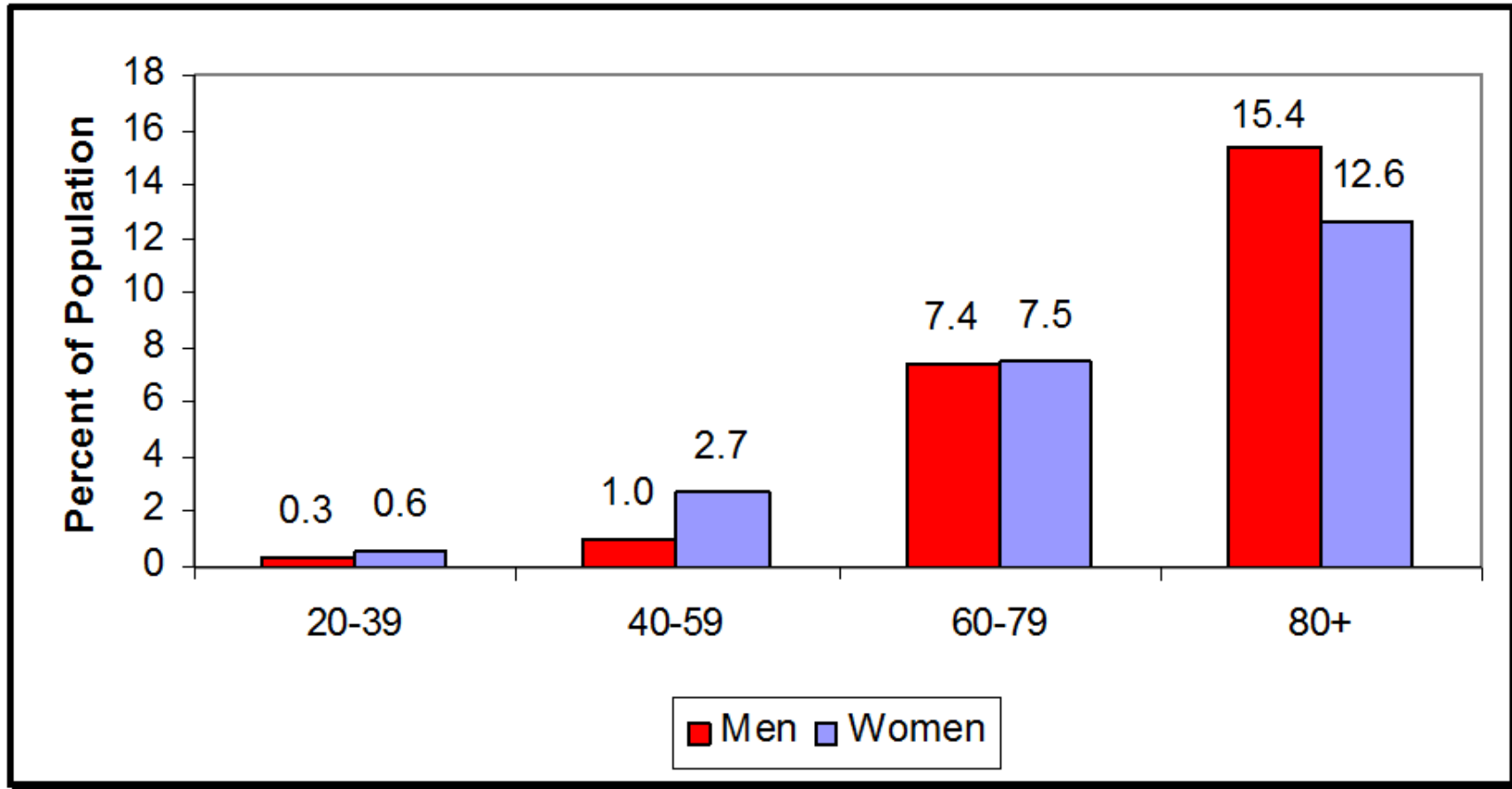
Ischemic subtypes

Disability Associated With Stroke



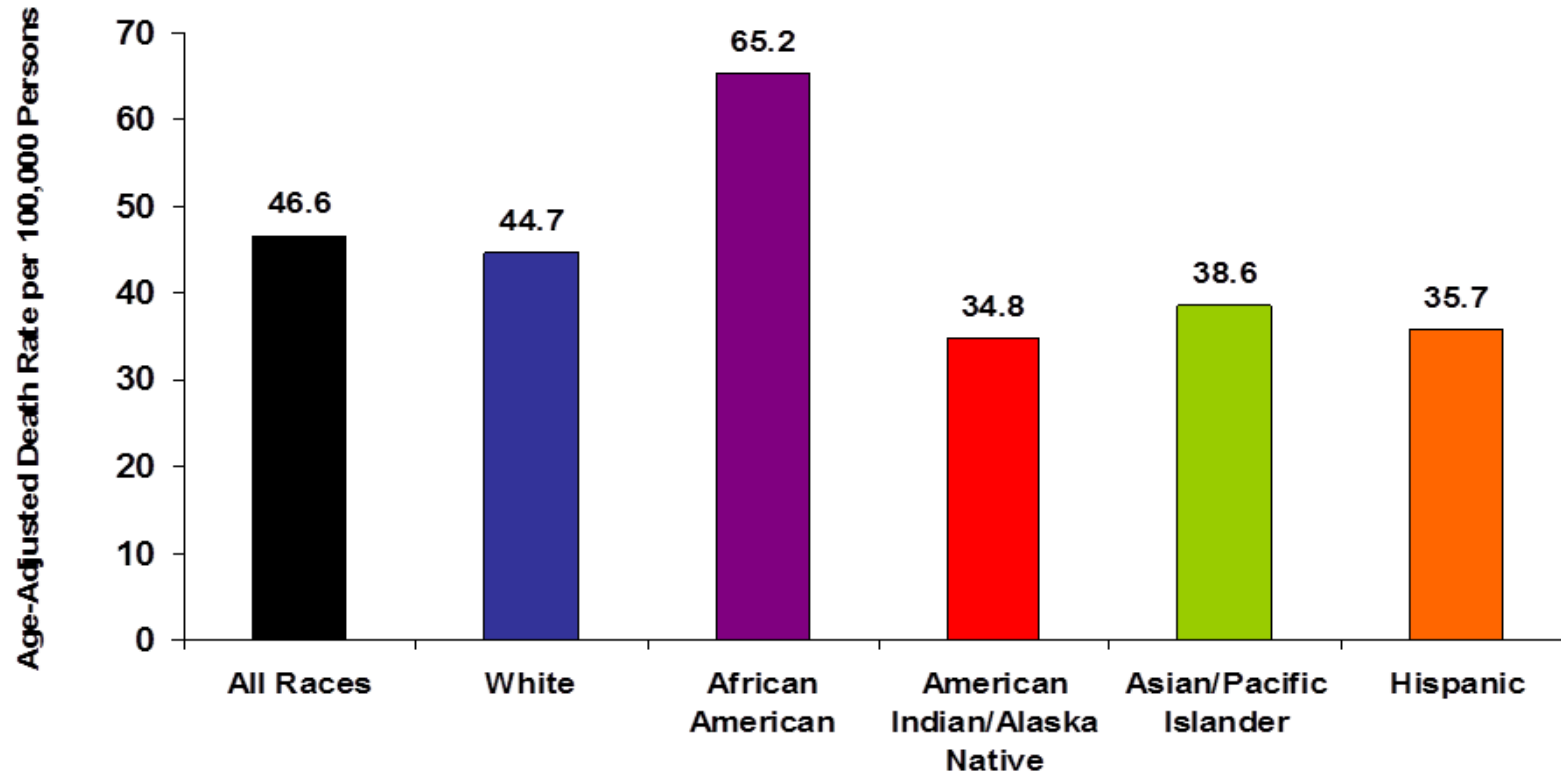
Go AS et al. Circulation. 2013;127:e6-e245.

Prevalence Of Stroke



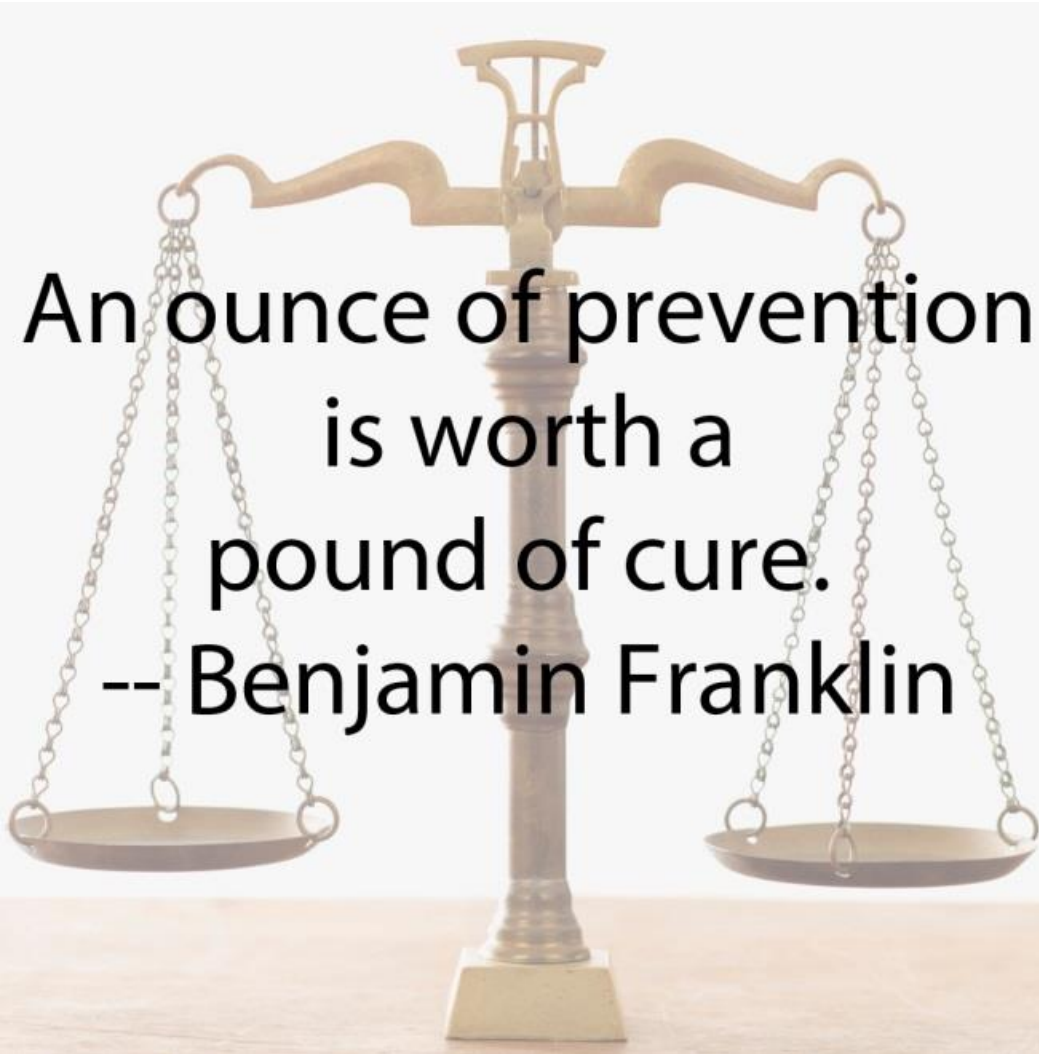
Prevalence of stroke by age and sex (NHANES: 2003-2006). Source: NCHS and NHLBI.

Significant Health Disparities Exist



Stroke, Age-Adjusted Death Rates per 100,000 Persons by Race & Hispanic Origin: U.S., 2005. CDC, NCHS, 2007

Prevention Works

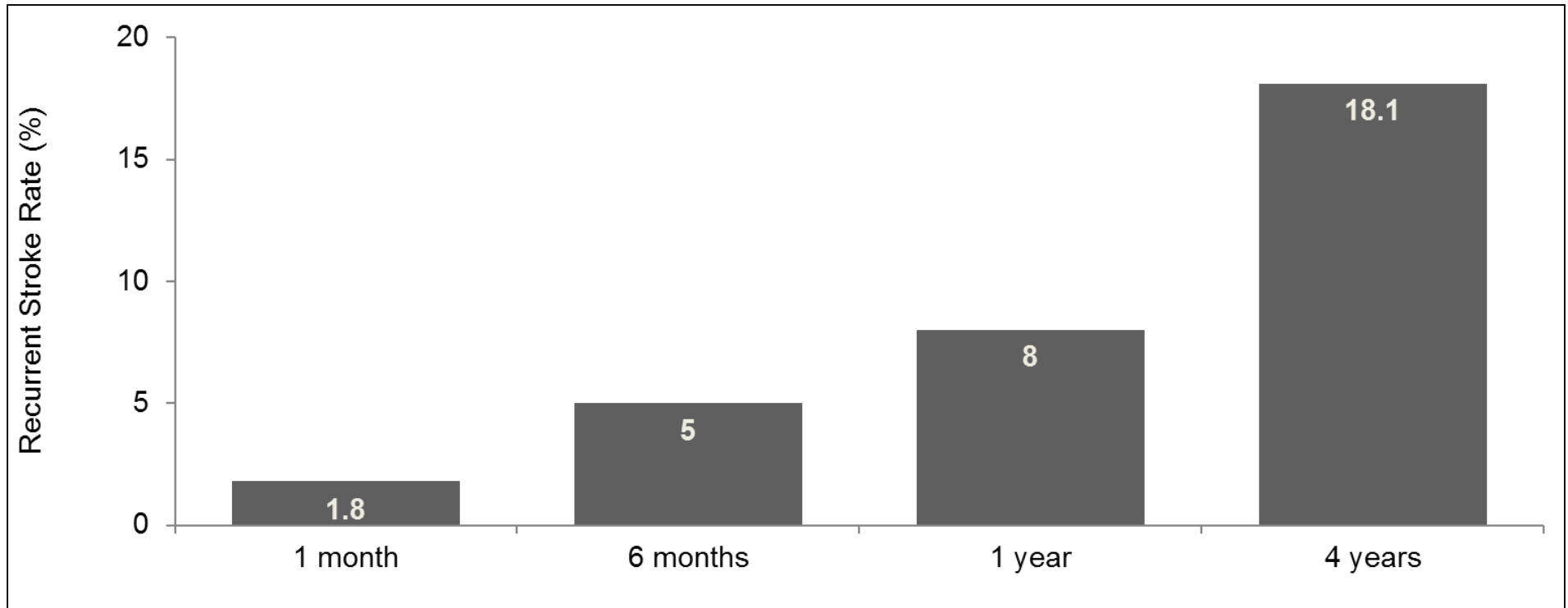


Three Levels of Prevention

Disease:

	Primary	Secondary	Tertiary
Population	General or At-risk	Exposed or Early disease	Advanced disease or Complications
Goal	↓ new cases	↓ severity ↓ complications	↓ impact ↓ deaths
Rationale	↓ risk by ↓ exposure	Early identification allows earlier treatment	Minimize impact of disease on person
Interventions	Education Prophylaxis Health promotion	Screening Early treatment Access to care	Treatment Rehabilitation
Evaluation (Outcomes)	↓ incidence of exposure	↓ incidence of disease ↓ morbidity	↓ prevalence ↓ morbidity ↓ mortality

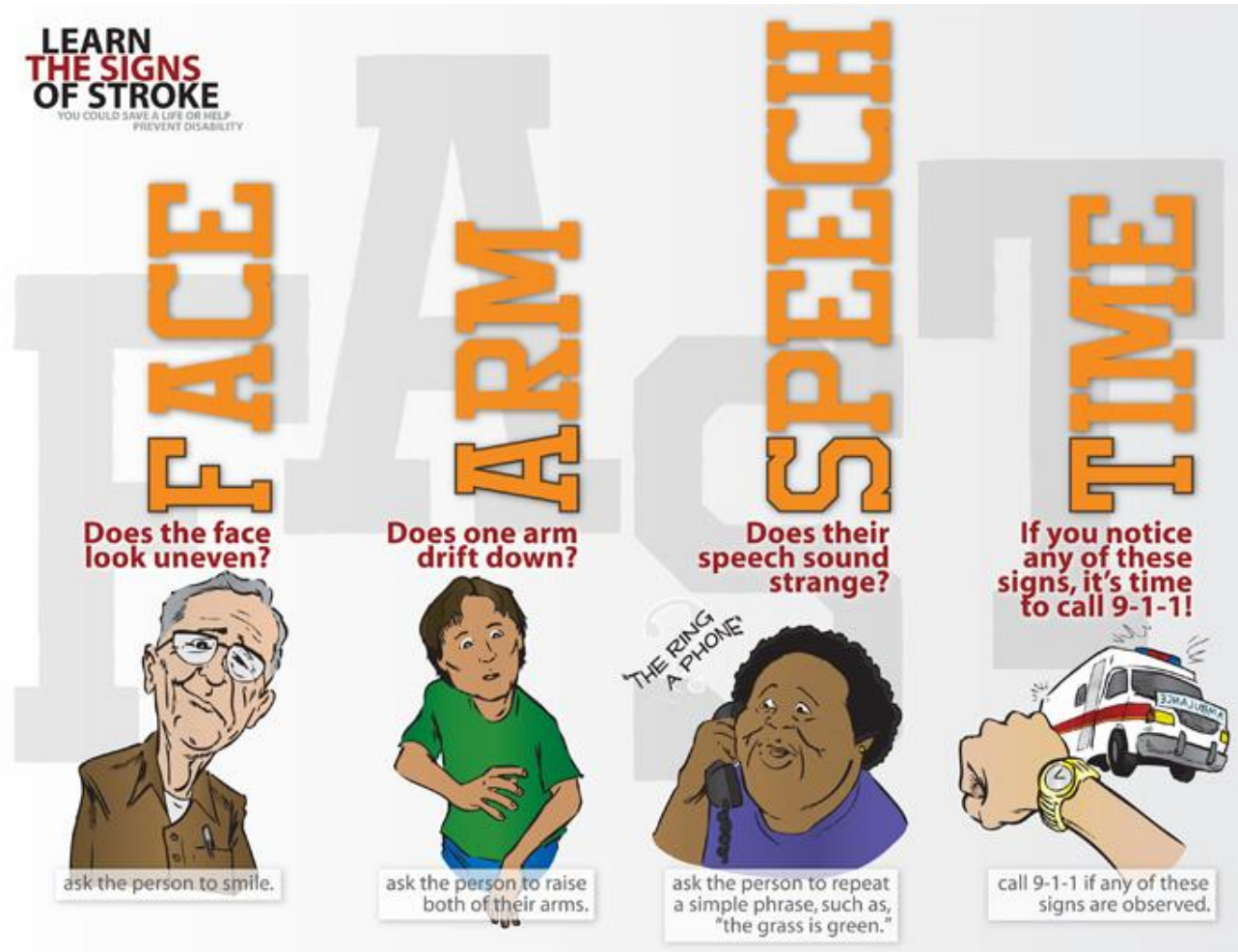
Importance of Secondary Ischemic Stroke Prevention



Recurrent Stroke Rate Among Patients Discharged With a Primary Diagnosis of Stroke, South Carolina, 2002 (N=10,399)

Stroke Is Treatable

Public Awareness Is Essential

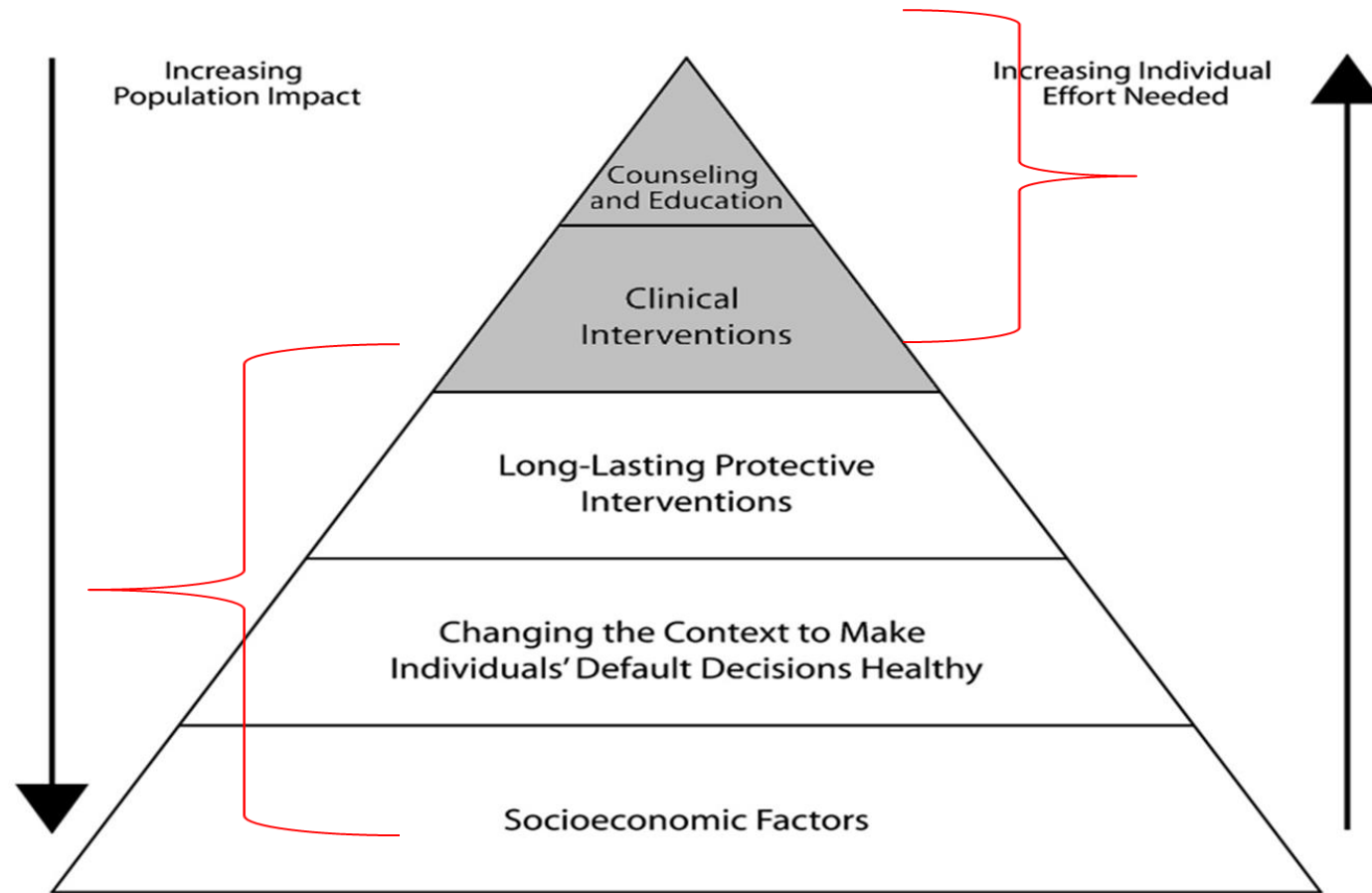


Stroke Is Preventable

- 80% can be prevented
- Long term morbidity can be mitigated
- Preventive steps include
 - Hypertension control
 - Tobacco control
 - Salt reduction in food
 - Lowering cholesterol
 - Weight control
 - Physical activity



Shifting To Multidisciplinary Interventions Beyond Health Care



Frieden T., A framework for public health action: The health impact pyramid, Am J Public Health. 2010 Apr;100(4):590-5

Population Based Stroke Interventions

Physical Inactivity

- Building walkable, bikeable communities
- Fix playgrounds
- Reinstate physical activity in school

Population Based Stroke Interventions

Nutrition

- Eliminating trans fats
- Menu labeling
- Reducing the salt in food
- Cholesterol reduction
- Eliminating food desserts

Population Based Stroke Interventions

Tobacco Control

- Tobacco is the number one preventable cause of death
 - 400,000 deaths
 - Numerous morbidities
- Starts in early adolescence & adulthood
- Costs everyone
- There are individual & community based solutions
 - Health education
 - Cessation therapy
 - Smoke free policy & laws
 - Reduce access to youth



Population Based Stroke Interventions

Blood Pressure Control

- Early identification & population based screening
- Individual factors
 - Self monitoring of BP
 - Weight control
 - Tobacco
 - Salt reduction
- Environmental stress reduction

Questions



ABOUT APHA

The American Public Health Association champions the health of all people and all communities. We strengthen the profession of public health, promote best practices and share the latest public health research and information. We are the only organization that influences federal policy, has a 140-plus year perspective and brings together members from all fields of public health. Learn more at www.apha.org.



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