Social Determinants of Health (SDH)
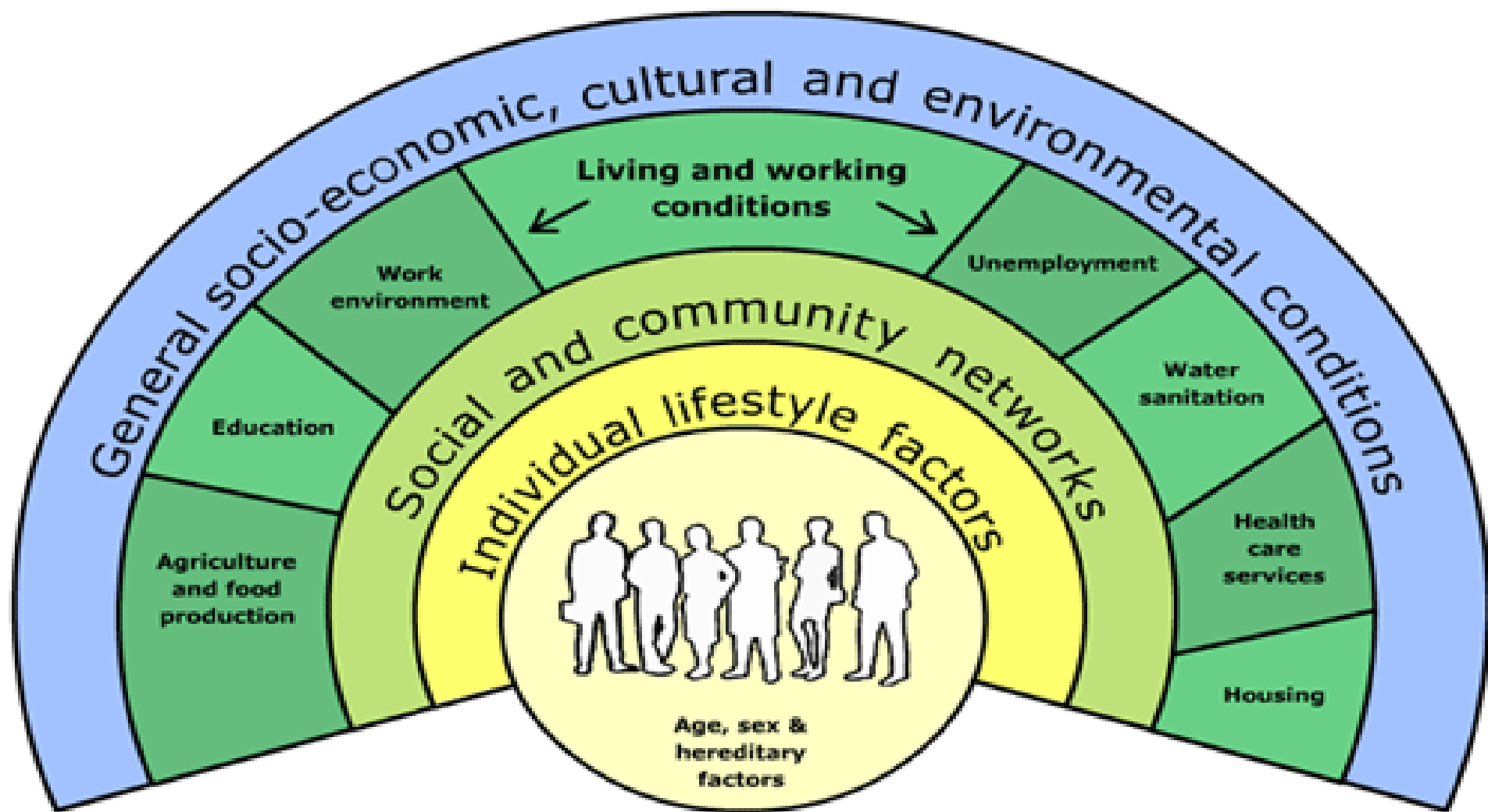
BACKGROUND

FIVE PHASES OF MODERN ERA OF HEALTH

- ➤ Miasma phase (1850-1880)
- ➤ Bacteriology (1880-1910)
- ➤ Health resources/medical (1910-1960)
- ➤ Social engineering (1960-1975)
- ➤ Health promotion period (1975-present)

The Main Determinants of Health

In the 21st Century…

Can it be morally acceptable, let alone politically stable, to have a world in which there is a 20-fold difference in IMR; a 21-year gap in life expectancy between the 51 high-income countries and the 66 poorest countries?

Objectives for this presentation are to:

➤ become aware of social determinants of health (SDH)

➤ learn why addressing SDH is important

➤ learn who should address social determinant of health

➤ know why, when and how to address SDH in our communities

➤ have a dialogue with the participants to learn if SDH are relevant here?

What Is Health?

Selected Definition of Health:

- ➢ freedom from disease or pain
- ➢ "a state of complete physical, mental, and social well- being" and not merely the absence of disease

World Health Organization (WHO), 1948

How Do We Know that:

➢ one group of people is healthier than another group in a district/county/region, etc?

➢ people living in one province/state are healthier than the neighboring places?

➢ people living in one country are healthier than those living in other countries?

Health Index/Indices/Indicators

- Life expectancy

- Infant mortality rate

- Child mortality rate

- Maternal mortality rate

- Morbidity and mortality rates

What does Disparity Mean?

Difference in incidence

And

incidence means number of the new cases of disease in a population

In the 21ˢᵗ Century…

➢ **30% of everyone alive is living in an endemic state of poverty(1)**

➢ **People in some 50 countries survive per capital incomes of $1-2 a day (ibid.)**

1) Source: World Bank

Why a such a big gap in Life expectancy?

A girl born in Zambia can expect to live:

43 years

A girl born in Japan TWICE as long:

86 years

Why a gap in life expectancy within and or across countries?

A boy born in a deprived suburbn of Calton in Glasgow, Scotland on average will live 28 years less than a boy born 13 kilometers away in affluent Lenzie

The same child born in Calton has shorter life expectancy than a child in India where 80% of population lives on $2 a day

Social Determinants of Health (SDH): Definition and Significance

SDH has expanded the health domain beyond health sector to social, economic, cultural and political systems of the society. These external factors do **also impact our health outcomes in many cases.**

The need and demand for clear scientific evidence to inform and support the health policy making process are greater than ever.

Social determinants of health

- The social gradient
- Stress
- Early life
- Social exclusion
- Work
- Unemployment

- Social support
- Addiction
- Food
- Transport

SES Gradient in Health Outcomes

There is a SES gradient in health outcomes: As social advantages (wealth, status) accrue, health improves. Like rungs on a ladder, health is better at each successive level.
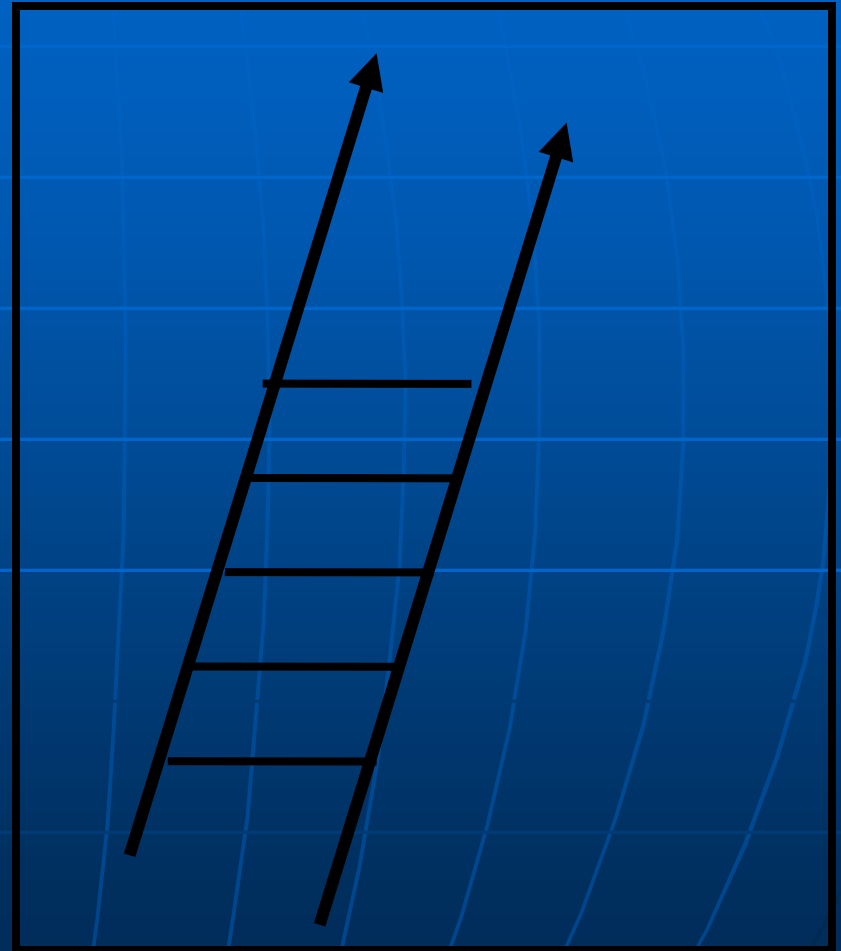
1. THE SOCIAL GRADIENT

- Life expectancy is shorter and most diseases are more common <u>further down the social ladder</u> in each society.

> Health policy must tackle the social and economic determinants of health.

- Poor social and economic circumstances affect health throughout life.

THE SOCIAL GRADIENT

- People <u>further down the social ladder </u>usually run at least twice the risk of serious illness and premature death as those near the top.

- Both material and psychosocial causes contribute to these differences and their effects extend to most diseases and causes of death.

Disadvantage (of THE SOCIAL GRADIENT):

1. having few family assets
2. having a poorer education during adolescence
3. having insecure employment
4. becoming stuck in a hazardous or dead-end job,
5. living in poor housing
6. trying to bring up a family in difficult circumstances and living on an inadequate retirement pension

- This result in:
  - The longer people live in stressful economic and social circumstances, the greater the physiological wear and tear they suffer, and the less likely they are to enjoy a healthy old age.

Policy implications

(of THE SOCIAL GRADIENT):

- If policy fails to address these facts:
  - it not only ignores the most powerful determinants of health standards in modern societies,
  - it also ignores one of the most important social justice issues facing modern societies.

- Life contains a series of critical transitions (emotional and material changes in early childhood, the move from primary to secondary education, starting work, …) Each of these changes can affect health .

- Because people who have been disadvantaged in the past are at the greatest risk in each subsequent transition,

welfare policies need to provide not only safety nets but also springboards to offset earlier disadvantage.
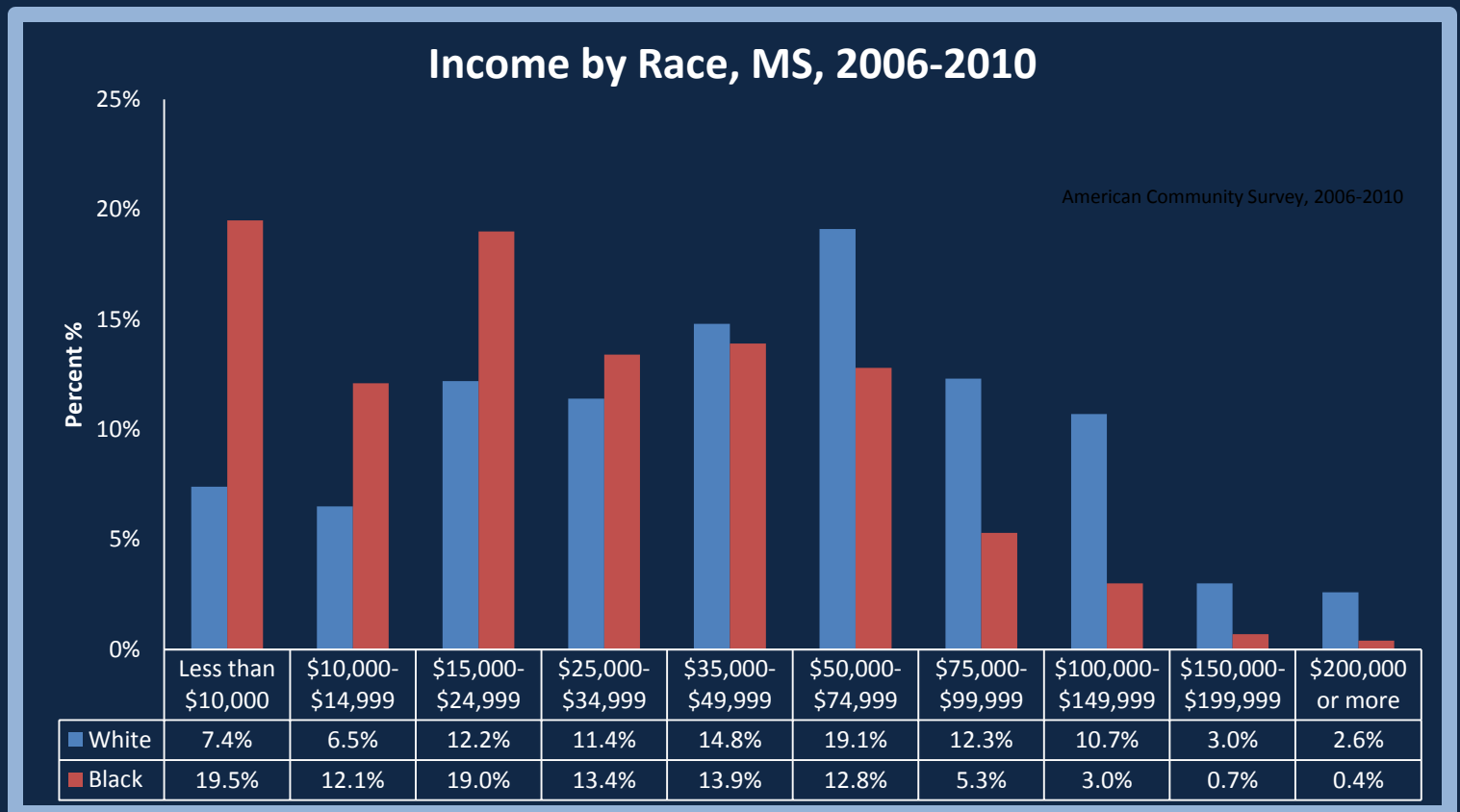
Societies that enable all citizens to play a full and useful role in the social, economic and cultural life of their society **will be healthier than** those where people face insecurity, exclusion and deprivation.

Those ways of **improving health** that will also **reduce the social gradient** in health.

Social Determinants of Health
Income

US Census

Income by Race, MS, 2006-2010

American Community Survey, 2006-2010

	Less than $10,000	$10,000-$14,999	$15,000-$24,999	$25,000-$34,999	$35,000-$49,999	$50,000-$74,999	$75,000-$99,999	$100,000-$149,999	$150,000-$199,999	$200,000 or more
White	7.4%	6.5%	12.2%	11.4%	14.8%	19.1%	12.3%	10.7%	3.0%	2.6%
Black	19.5%	12.1%	19.0%	13.4%	13.9%	12.8%	5.3%	3.0%	0.7%	0.4%

2. STRESS

- Stressful circumstances, making people feel worried, anxious and unable to cope, are <u>damaging to health and may lead to premature death</u>.

- Social and psychological circumstances can cause long-term stress.

- Continuing anxiety, insecurity, low self-esteem, social isolation and lack of control over work and home life, have powerful effects on health.

- Such psychosocial risks accumulate during life and increase the chances of poor mental health and premature death.

- Why do these psychosocial factors affect physical health? In emergencies, our hormones and nervous system prepare us to deal with an immediate physical threat by triggering the fight or flight response: raising the heart rate, mobilizing stored energy, diverting blood to muscles and increasing alertness.

- For brief periods, this does not matter; but if people feel tense too often or the tension goes on for too long, they become more vulnerable to a wide range of conditions including infections, diabetes, high blood pressure, heart attack, stroke, depression and aggression.

Policy implications

(for stress):

- Control of stress with drug   BUT

- attention should be focused upstream, on reducing the major causes of chronic stress.

- In schools, workplaces and other institutions, the quality of the social environment and material security are often *as important to health as the physical environment*. Institutions that can give people a sense of belonging, participating and being valued are likely to be healthier places than those where people feel excluded, disregarded and used.

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- Governments should recognize that welfare programs need to address both psychosocial and material needs:
  - both are sources of anxiety and insecurity.
  - In particular, governments should :
    - support families with young children,
    - encourage community activity,
    - combat social isolation,
    - reduce material and financial insecurity,
    - and promote coping skills in education and rehabilitation.

3. EARLY LIFE

- A good start in life means supporting mothers and young children: the health impact of early development and education lasts a lifetime.

- adult health are laid in early childhood and before birth.

- Slow growth and poor emotional support raise the lifetime risk of poor physical health and reduce physical, cognitive and emotional functioning in adulthood.

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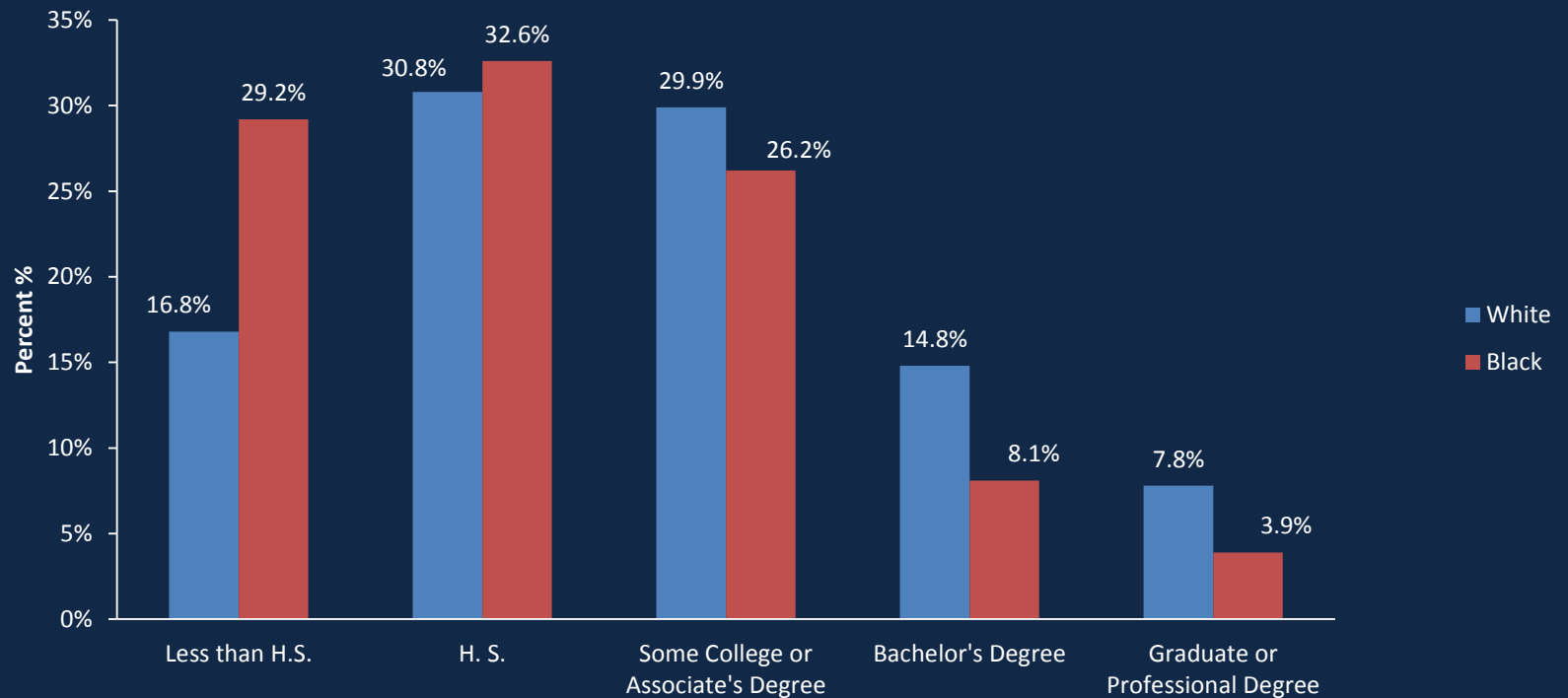# Very Low Birthweight - Mississippi

Rank Among States

(1=   highest)

2013-   **1st***   of 50

Tied with Alabama and Louisiana
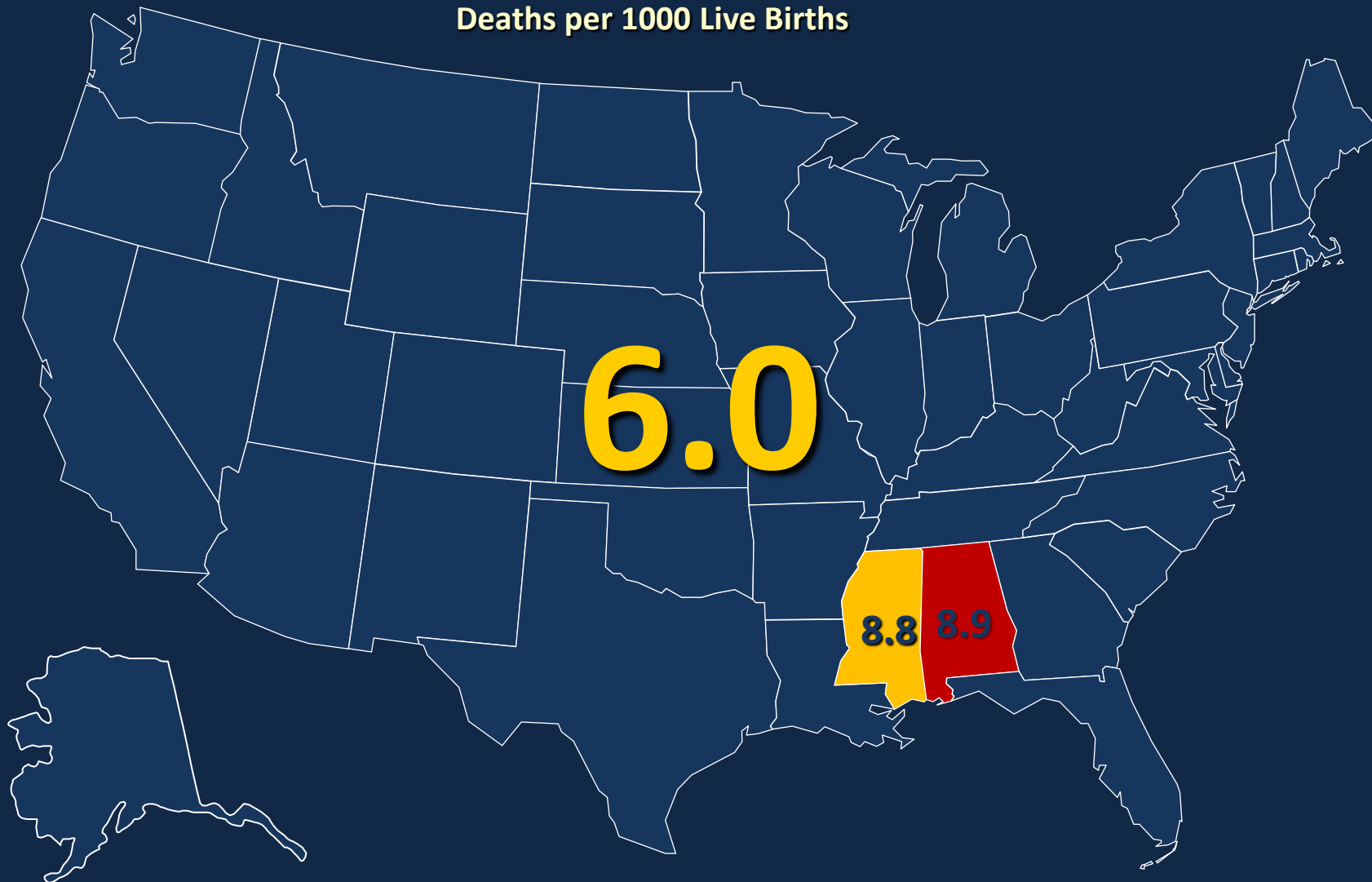
Social Determinants of Health Education

Educational Attainment by Race, 25+, MS, 2008-2010

American Community Survey, 2008-2010

Infant Mortality, 2012
Deaths per 1000 Live Births

6.0

8.8 8.9

Source: National Center for Health Statistics, *Deaths: Final Data for 2012*.

Policy implications
(for early life):

- These risks to the developing child are significantly greater among those in poor socioeconomic circumstances and they can best be reduced through:

  - improved preventive health care before the first pregnancy

  - and for mothers and babies in pre- and postnatal

  - infant welfare and school clinics,

  - and through improvements in the educational levels of parents and children.

- **Policies for improving health in early life should aim to:**
  - increase the general level of education and provide *equal opportunity* of access to education, *to improve the health of mothers and babies in the long run;*

  - provide good nutrition, health education, and health and preventive care facilities, and adequate social and economic resources, before first pregnancies, during pregnancy, and in infancy, *to improve growth and development before birth and throughout infancy, and reduce the risk of disease and malnutrition in infancy;*

– <u>ensure</u> that parent-child relations are supported from birth, ideally through home visiting and the encouragement of good parental relations with schools, to increase parental knowledge of children's emotional and cognitive needs, to stimulate cognitive development and pro-social behavior in the child, and to prevent child abuse.

4. SOCIAL EXCLUSION

- Life is short where its quality is poor. By causing hardship and resentment, poverty, social exclusion and discrimination cost lives.

- _Poverty_, _relative deprivation_ and _social exclusion_ have a major impact on health and premature death.

- Those living on the streets suffer the highest rates of premature death

- Relative poverty means being much poorer than most people in society and is often defined as living on less than 60% of the national median income.

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- The greater the length of time that people live in disadvantaged circumstances, the more likely they are to suffer from a range of health problems, particularly cardiovascular disease.

- Poverty and social exclusion increase the risks of divorce and separation, disability, illness ,addiction and social isolation and vice versa.

Policy implications

(for social exclusion):

- All citizens should be protected by minimum income guarantees, minimum wages legislation and access to services.

- Interventions to reduce poverty and social exclusion are needed at both the individual and the neighborhood levels.

- Public health policies should remove barriers to health care, social services and affordable housing.

- Labour market, education and family welfare policies should aim to reduce social stratification.

5. WORK

- Stress in the workplace increases the risk of disease. People who have more control over their work have better health.

- In general, having a job is better for health than having no job.

- Evidence shows that stress at work plays an important role in contributing to the large social status differences in health, sickness absence and premature death.

- health suffers when people have little opportunity to use their skills and low decision-making authority.

- Further, receiving inadequate rewards for the effort put into <u>work has been found to be associated with increased cardiovascular risk</u>.

- Rewards can take the form of money, status and self-esteem.

- psychosocial environment at work is <u>an important determinant</u> of health and contributor to the social gradient in ill health.

Policy implications
(for work);

- improved conditions of work will lead to a *healthier work force*, which will lead to *improved productivity*, and hence to the *opportunity to create a still healthier*, more *productive workplace.*

- Appropriate involvement in decision-making is likely to benefit employees at all levels of an organization.

- Good management involves ensuring *appropriate rewards* - in terms of money, status and self-esteem - for all employees

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- To reduce the burden of musculoskeletal disorders, workplaces must be *ergonomically appropriate*.

- workplace health protection should also include workplace health services with people *trained in the early detection* of mental health problems and appropriate interventions.

6. UNEMPLOYMENT

- Job security increases health, well-being and job satisfaction.

- Higher rates of unemployment cause more illness and premature death.

- Unemployment puts health at risk, and the risk is higher in regions where unemployment is widespread.

- Anxiety about insecurity is also detrimental to health.

- Job insecurity has been shown to increase effects on
  - mental health (particularly anxiety and depression),
  - self-reported ill health,
  - heart disease and
  - risk factors for heart disease.

Policy implications
(for unemployment):

- Policy should have three goals:

  – to prevent unemployment and job insecurity;

  – to reduce the hardship suffered by the unemployed; and

  – to restore people to secure jobs.

7. SOCIAL SUPPORT

- Friendship, good social relations and strong supportive networks improve health at home, at work and in the community.

- Social support and good social relations make an important contribution to health.

- Social isolation and exclusion are associated with *increased rates of premature death* **and** *poorer chances of survival after a heart attack.*

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- People who get less social and emotional support from others are more likely to experience *less well-being, more depression, a greater risk of pregnancy complications and higher levels of disability from chronic diseases.*

- Social cohesion - defined as the quality of social relationships and the existence of trust, mutual obligations and respect in communities or in the wider society - helps to protect people and their health.

- When social cohesion declined, heart disease rates rose

Policy implications

(for social support):

⊛ Experiments suggest that good social relations can reduce the physiological response to stress.

• Reducing social and economic inequalities and reducing social exclusion can lead to greater social cohesiveness and better standards of health.

• Improving the social environment in schools, in the workplace and in the community more widely, will help people *feel valued and supported in more areas of their lives and will contribute to their health, especially their mental health.*

- Designing facilities to encourage meeting and social interaction in communities could improve mental health.

8. ADDICTION

- Individuals turn to alcohol, drugs and tobacco and suffer from their use, but use is influenced by the wider social setting.

- Social deprivation -whether measured by poor housing, low income, lone parenthood, unemployment or homelessness

- ill health and premature death

Policy implications

(for addiction):

- Work to deal with problems of both legal and illicit drug use needs:

  - not only to support and treat people who have developed addictive patterns of use,
  - but also to address the patterns of social deprivation in which the problems are rooted.

Policies need to regulate :

- availability through pricing and licensing,

- and to inform people about less harmful forms of use,

- to use health education to reduce recruitment of young people and

- to provide effective treatment services for addicts.

9. FOOD

- Because global market forces control the food supply, healthy food is a political issue.

- A good diet and adequate food supply are *central for promoting health and well-being.*

- A shortage of food and lack of variety cause malnutrition and deficiency diseases.

- Excess intake (also a form of malnutrition) contributes to *cardiovascular diseases, diabetes, cancer, degenerative eye diseases, obesity and dental caries.*

- Food poverty exists side by side with food plenty.

- The important public health issue is the availability and cost of healthy, nutritious food.

- with nutritional transition, when diets, particularly in western Europe, changed to *overconsumption of energy-dense fats and sugars*, producing more obesity.

- At the same time, obesity became more common among the poor than the rich.

- In many countries, the poor tend to substitute cheaper processed foods for fresh food.

- High fat intakes often occur in all social groups. People on low incomes, such as young families, elderly people and the unemployed, are least able to eat well.

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- Dietary goals to prevent chronic diseases emphasize:
  - eating more fresh vegetables, fruits and pulses (legumes) and
  - more minimally processed starchy foods, but
  - less animal fat, refined sugars and salt.

- *Over 100 expert committees have agreed on these dietary goals.*

Policy implications
(for food):

- Local, national and international government agencies, nongovernmental organizations and the food industry should ensure:

  - the integration of public health perspectives into the food system to provide affordable and nutritious fresh food for all, especially the most vulnerable;

- support for sustainable agriculture and food production methods that conserve natural resources and the environment;

- a stronger food culture for health, especially through school education, to foster people's knowledge of food and nutrition, cooking skills, growing food and the social value of preparing food and eating together;

- the availability of useful information about food, diet and health, especially aimed at children;

- the use of scientifically based nutrient reference values and food-based dietary guidelines to facilitate the development and implementation of policies on food and nutrition.

10. TRANSPORT

- Healthy transport means less driving and more walking and cycling, backed up by better public transport.

- Transport policy can play a key role in combating sedentary lifestyles by 1- reducing reliance on cars, 2- increasing walking and cycling, and 3- expanding public transport.

- Regular exercise protects against heart disease and, by limiting obesity, reduces the onset of diabetes. It promotes a sense of well-being and protects older people from depression.

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- Reducing road traffic would also reduce the toll of road deaths and serious accidents.

- cycling, walking and public transport stimulate social interaction on the streets.

- Reduced road traffic decreases harmful pollution from exhaust.

- Walking and cycling make minimal use of non-renewable fuels and do not lead to global warming. They do not create disease from air pollution, make little noise and are preferable for the ecologically compact cities of the future.

The determinants of health

- Education – low education levels are linked with poor health, more stress and lower self-confidence.

Policy implications
(for transport):

- The 21st century must see a reduction in people's dependence on cars. Despite their health-damaging effects, however, journeys by car are rising rapidly.

- Roads should give precedence to cycling and walking for short journeys, especially in towns.

- Public transport should be improved for longer journeys, with regular and frequent connections for rural areas.

- Changes in land use are also needed, such as
  - converting road space into green spaces,
  - removing car parking spaces,
  - dedicating roads to the use of pedestrians and cyclists,
  - increasing bus anlow-d cycle lanes, and
  - stopping the growth of density suburbs and out-of-town supermarkets, which increase the use of cars.

- Increasingly, the evidence suggests that building more roads encourages more car use, while traffic restrictions may, contrary to expectations, reduce congestion.

The determinants of health are complex

- The determinants of health include the way we live our lives, such as what we eat, what other substances we choose to let into our bodies, how much we exercise, and the environment around us
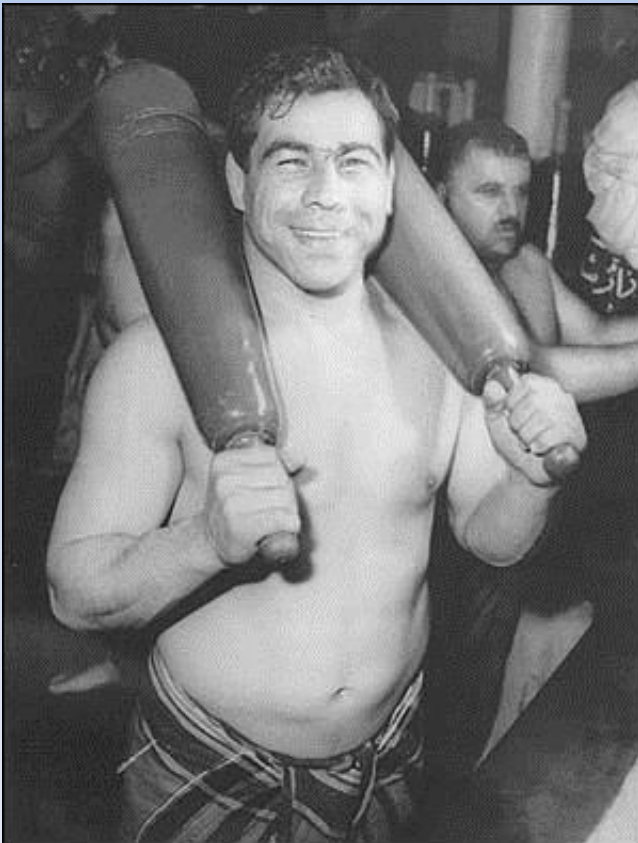
Social Determinants

Do they influence health outcomes?

Impact of Social Determinants

Fig. 11
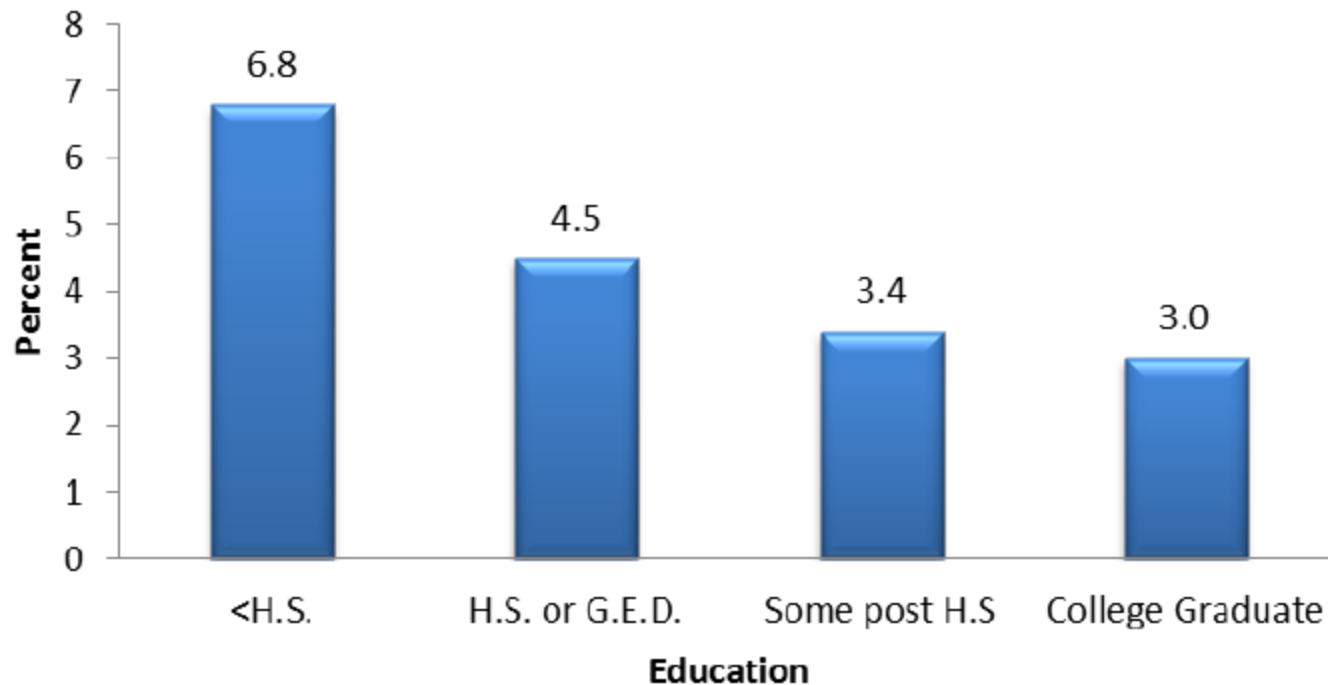
Hypertension Prevalence by Education, MS, 2011
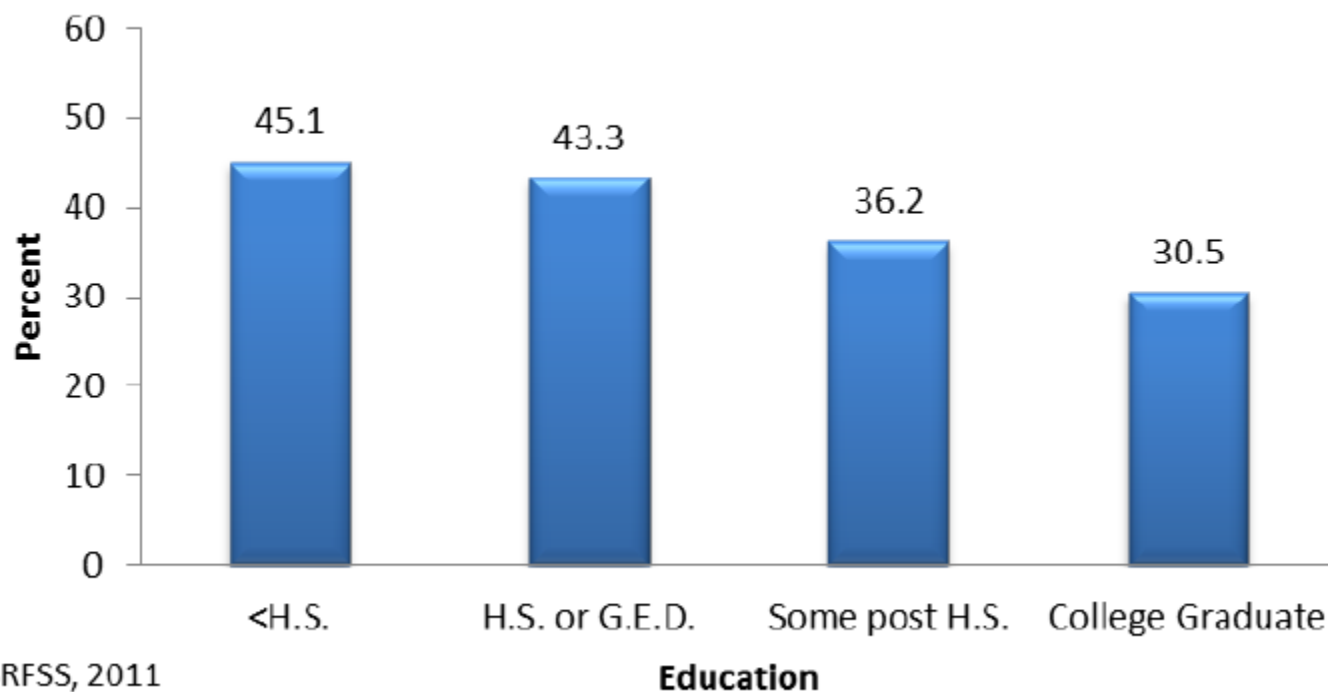
BRFSS, 2011

Impact of Social Determinants

Fig. 12 Hypertension Prevalence by Income, MS, 2011
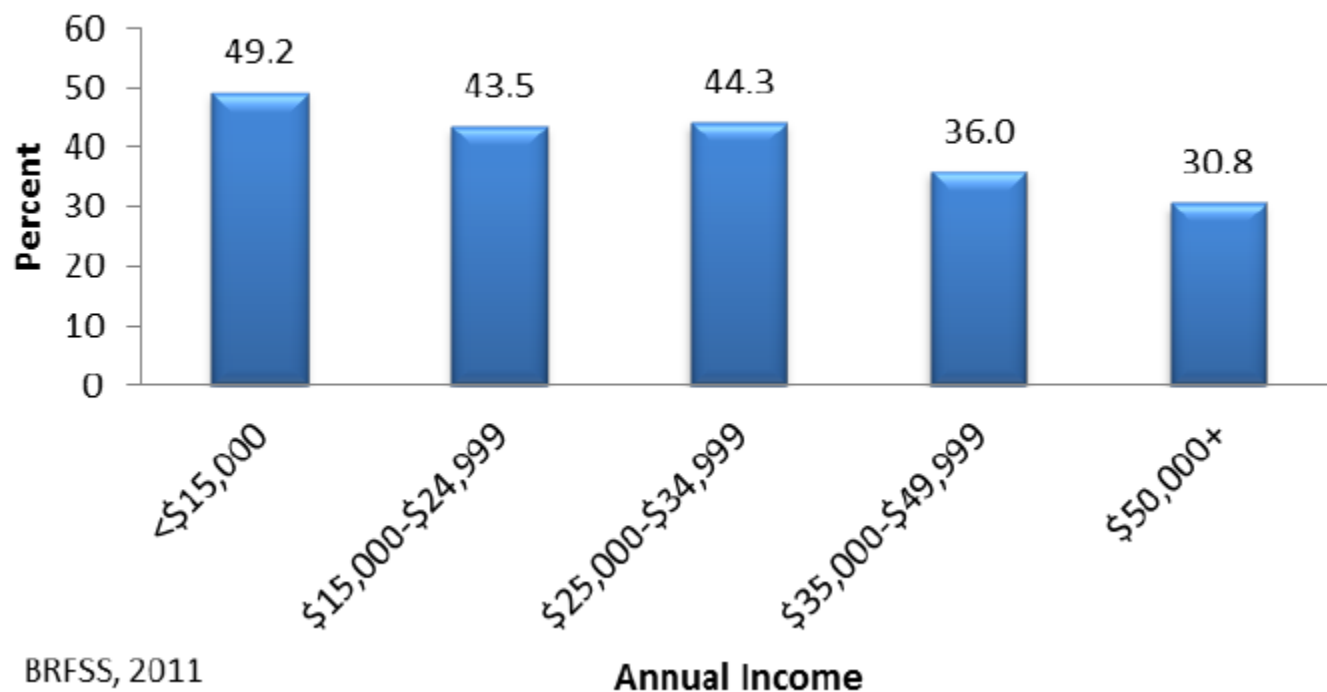
BRFSS, 2011

Impact of Social Determinants

Fig. 17

Stroke Prevalence by Education, MS, 2012
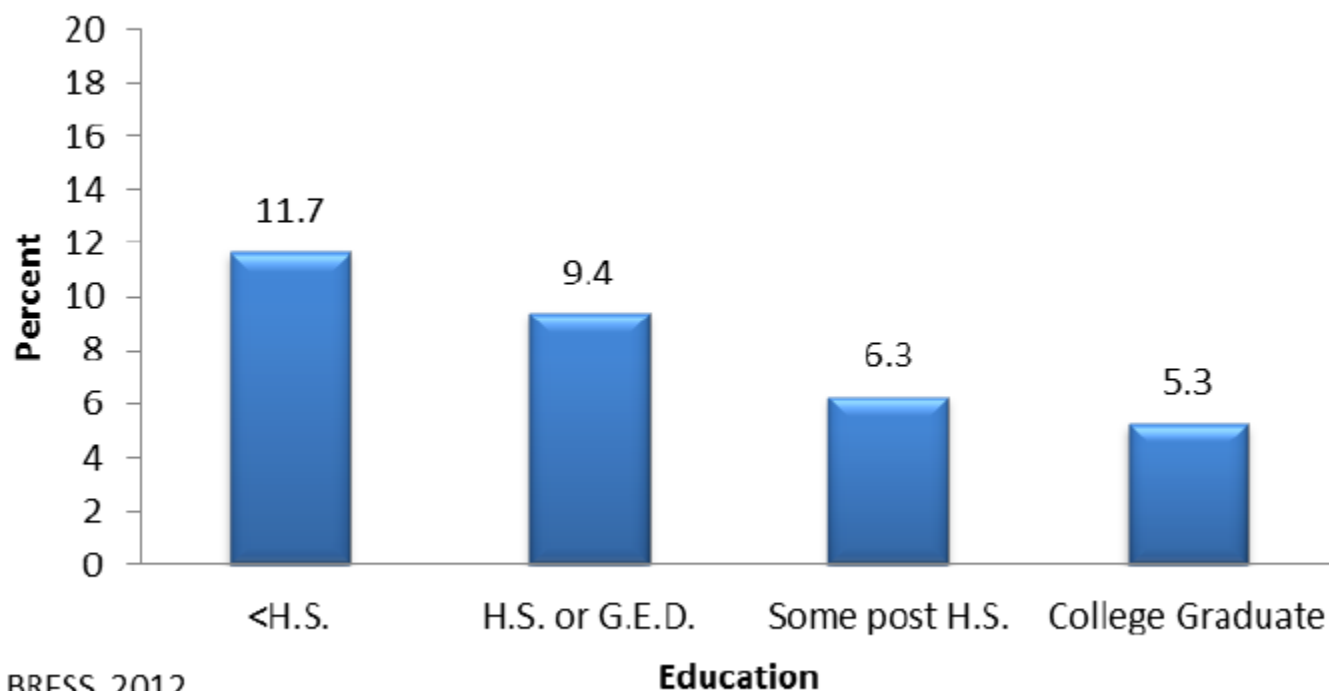
BRFSS, 2012

Impact of Social Determinants

Fig. 39

Diabetes Prevalence by Education, MS, 2012
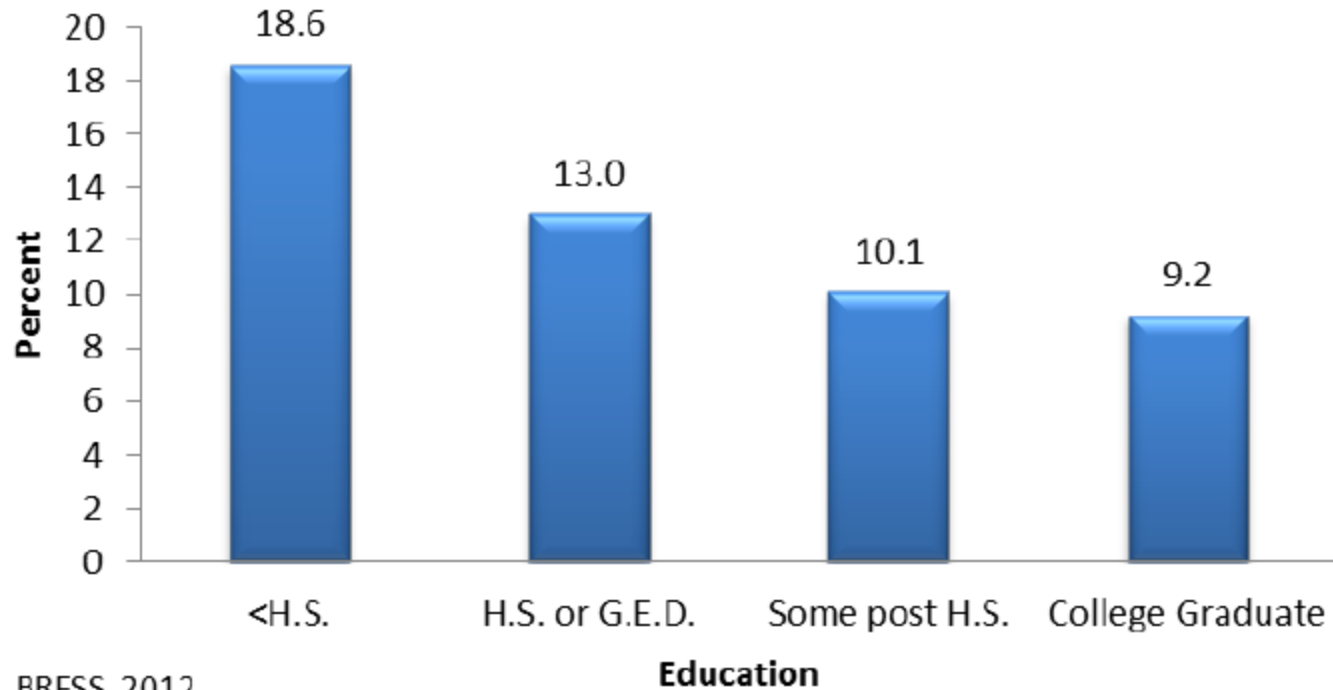
BRFSS, 2012

Impact of Social Determinants

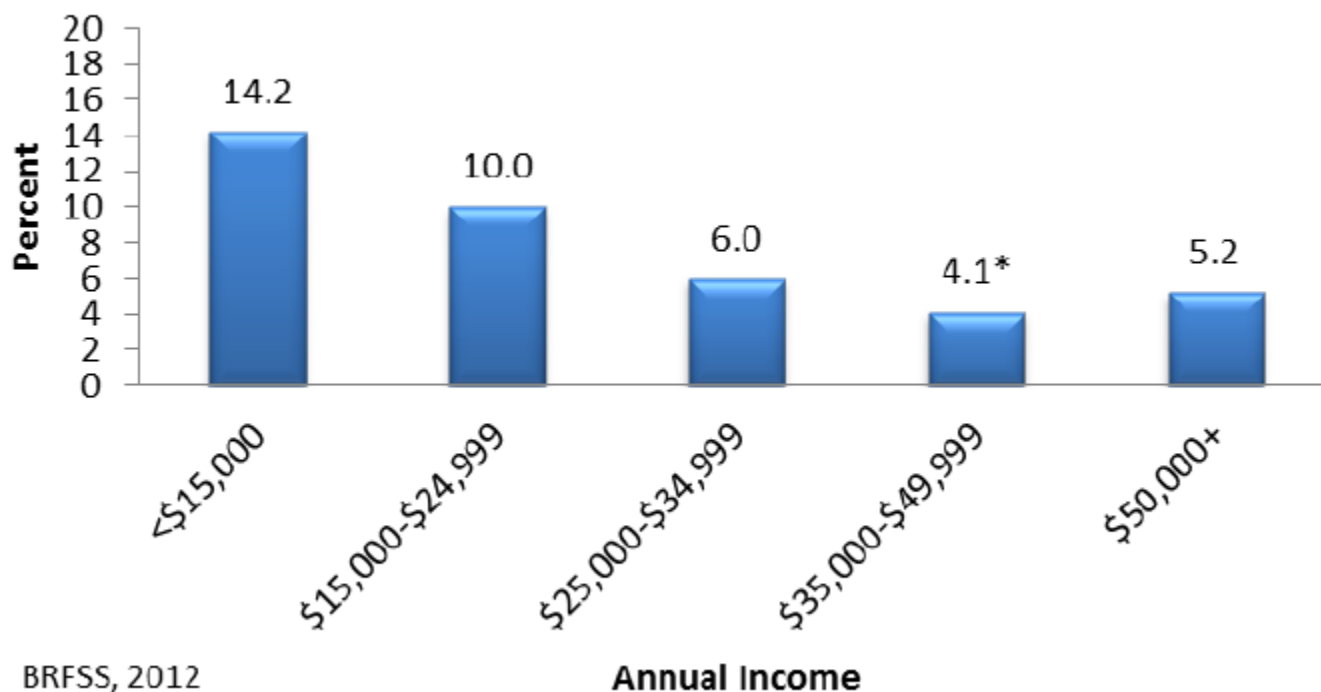Fig. 45   **Current Asthma Prevalence by Education, MS, 2012**

BRFSS, 2012

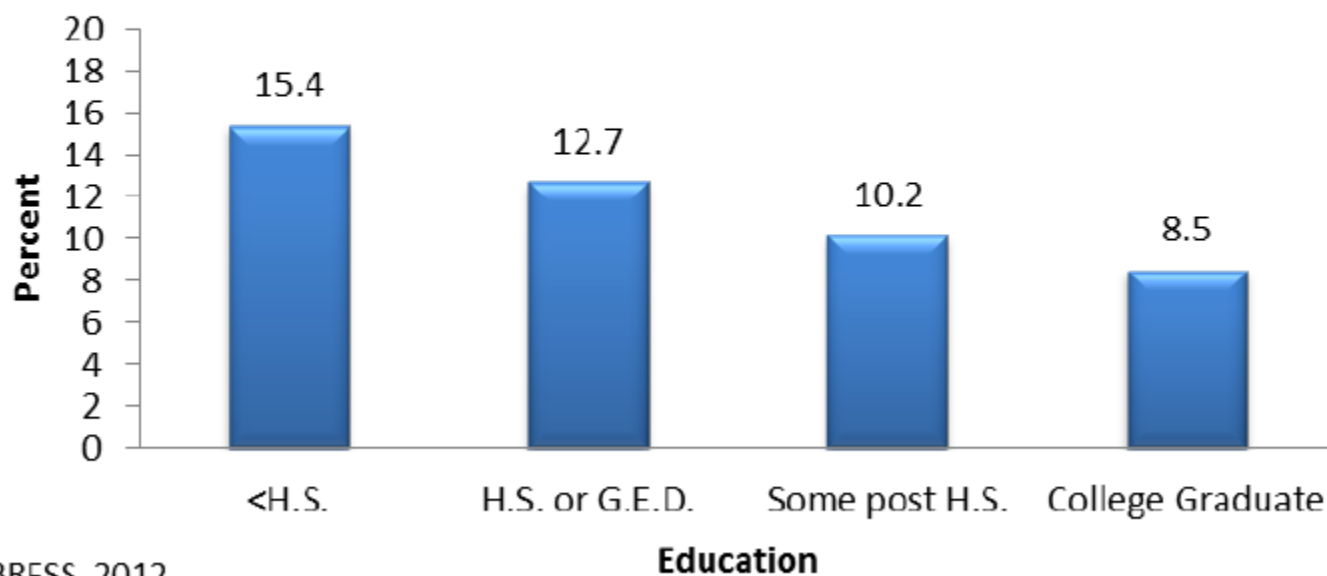# Impact of Social Determinants

Fig. 46 Current Asthma Prevalence by Income, MS, 2012

BRFSS, 2012

Impact of Social Determinants

Fig. 49 **Lifetime Asthma Prevalence by Education, MS, 2012**

BRFSS, 2012

•The determinants of health

- Genetics - inheritance plays a part in determining lifespan, healthiness and the likelihood of developing certain illnesses.

Frieden TR. Am J Public Health 2010;100(4):590-5

Resources for Policies that Work

Commissioned Reports

Social Determinants of Health: A Synthesis of Review of Evidence by Maureen Dobbins and Daiva Tirilis

- Published in CDC's MMWR Recommendations and Reports supplement, July, 2009: http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5807a1.htm
- The Community Guide: http://www.thecommunityguide.org/index.html
- The County Health Rankings: http://www.countyhealthrankings.org
- March of Dimes, Less than 39 weeks toolkit

http://www.marchofdimes.com/professionals/medicalresources_39weeks.html

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