

**Developmental Physiology and School Hygiene**  
**Public Health and Personal Hygiene**

**Lecture 14**

**Public health functions and achievements**

**Facts about personal hygiene**

**Counts against nicotine, alcohol, and stimulants**

**Special problem of a brain worker**

# What does Public Health do?

- Provide disease control and prevention
- Assure air and water quality
- Promote healthy lifestyles

**Public Health is a wise investment**

It helps people:

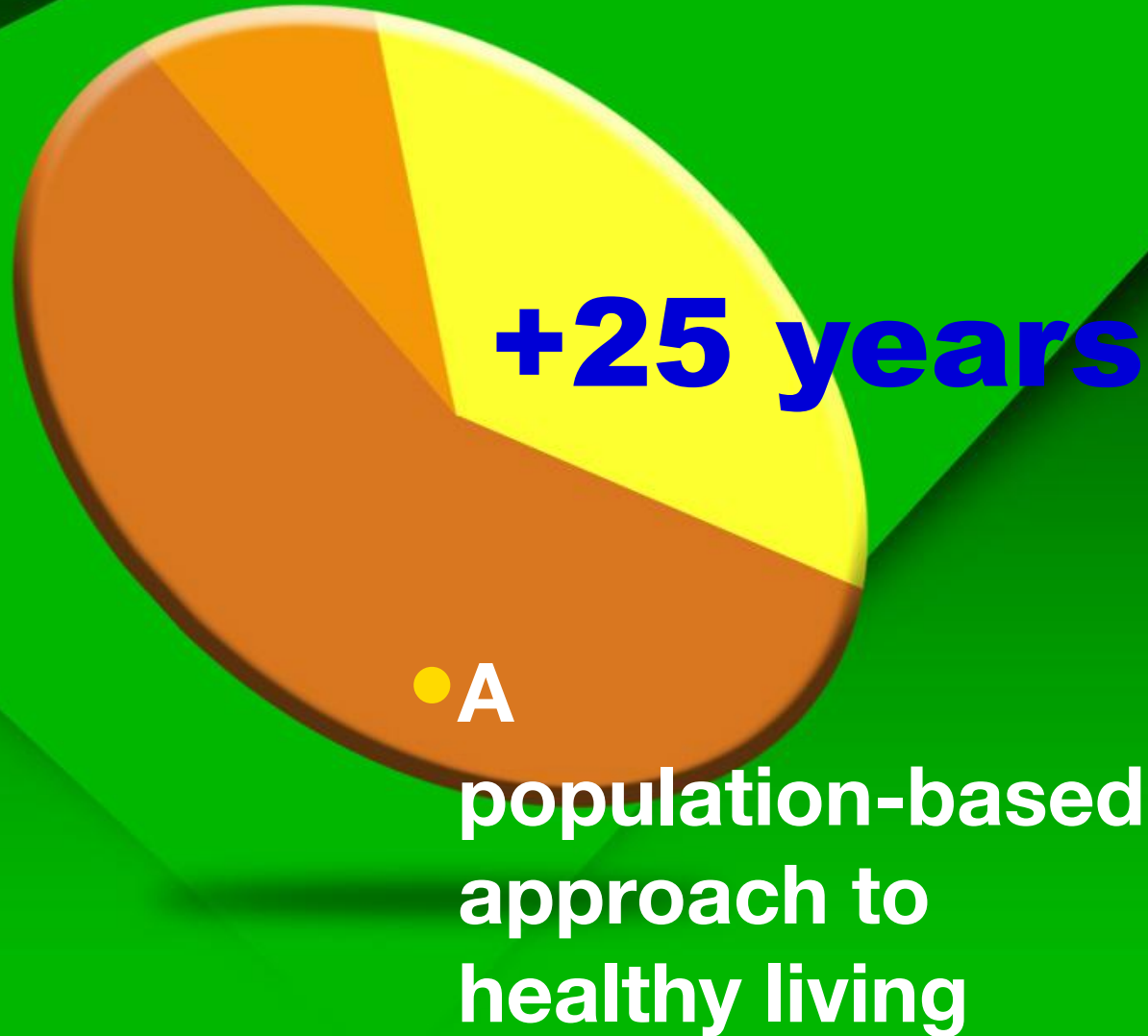
- Save money
- Enjoy good health
- Live longer



People are living longer!  
Drugs and medical care



# Public Health impact



Public Health achievements in the 20th century

# Immunizations

have virtually eliminated:

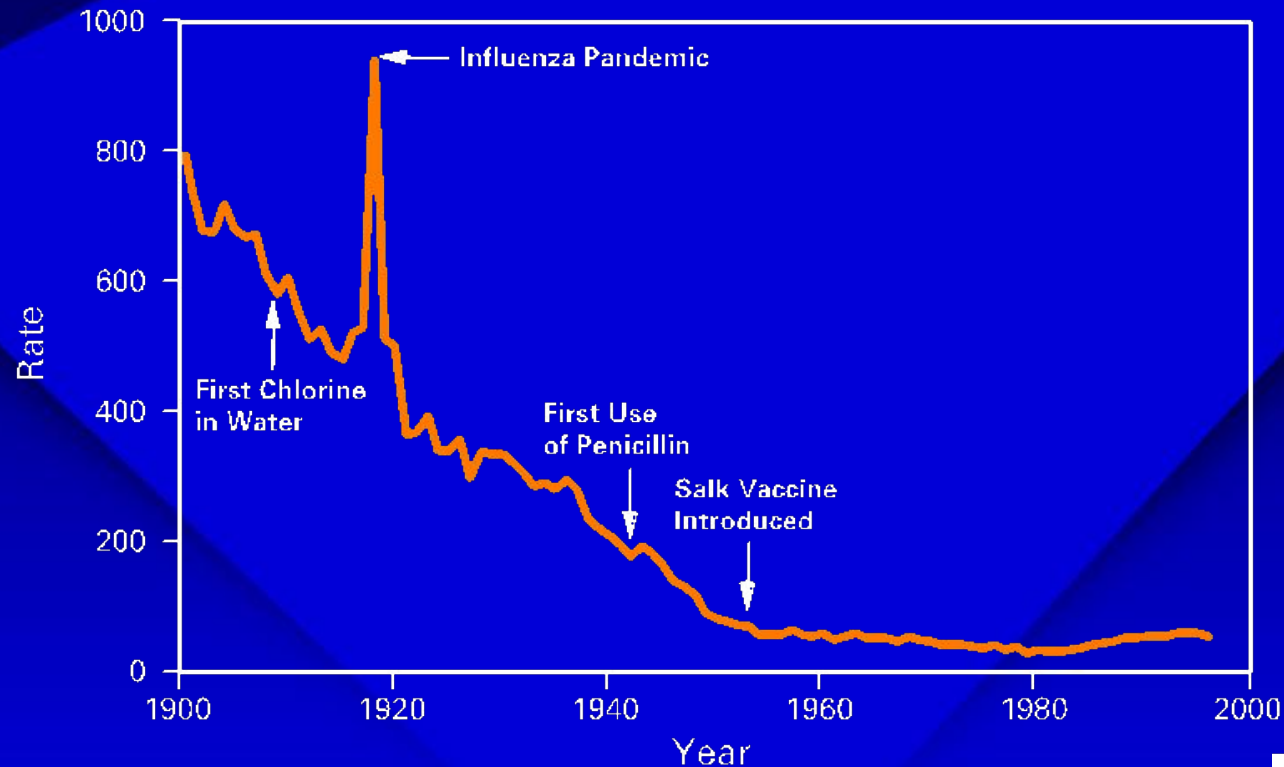
- Smallpox
- Diphtheria
- Pertussis
- Tetanus
- Polio
- Measles
- Rubella



# Public Health achievements in the 20th century

## Infectious disease control

Infectious Diseases Rate – 1900-1996



\*Per 100,000 population per year.

Public Health achievements in the 20th century

# Safe and healthier foods are now commonplace because of:

- Hand washing
- Sanitation
- Refrigeration
- Pasteurization
- Pest control
- Healthier animal care, feeding,  
and processing
- Improved food supply safety

Public Health achievements in the 20th century

# Fluoridation

- Primary factor in the decline of tooth decay
- Benefits all, regardless of age, education, or income





Public Health achievements in the 20th century

# Mother and infant mortality rates

- Maternal mortality rates down 99%
- Infant mortality rates down 90%



A photograph of a female doctor with short brown hair and glasses, wearing a white lab coat, examining a baby. She is using a green stethoscope to listen to the baby's chest. The baby is lying on its back, wearing a white diaper. The background is a plain, light-colored wall. The image is framed by a large, dark blue diamond shape that points towards the top right corner.

Public Health achievements in the 20th century

# Mother and infant mortality rates

- Improved standards of living
- Technological advances in medicine
- Greater access to maternal and well-baby care
- Desired birth spacing and family size

Public Health achievements in the 20th century

## Recognition of tobacco as a health hazard

Smoking, once socially acceptable, is on the decline among adults.

% of population who smoke

- 1965–42.4%
- 1997–24.7%



# Facts about personal hygiene

Hygiene comes from  
the word  
**HYGIEA**-a Greek  
Goddess of health  
and cleanliness

## Expensive Hand Sanitizers

- Antibacterial soap is no more effective at preventing infection than regular soap. After studying over 11,000 children it was found that an overly hygienic environment increases the risk of skin conditions and asthma.

# FLUSH PLEASE

- During the 18<sup>th</sup>-century, London did not have a sewer system. Toilet water was just dumped out of the windows on to the streets, where it contaminated the city's water supply.
- They did not know at the time that boiling water would help make the water safer to drink.
- In 1854 there were 616 deaths related to the water supply in London alone.
- Because of this, it was a common practice to drink alcoholic beverages at every meal and in-between.

# TV KILLS

- A study by the University of Arizona determined that the TV remote control in hospitals are the worst carriers of bacteria in hospital rooms; worse even than toilet handles. The remote can spread the infection MRSA, which contributes to over 90,000 deaths a year.

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# Teeth: Bad Breath Myths

**Myth #1 - Mouthwash will make bad breath go away.**

- Mouthwash only gets rid of bad breath temporarily.

**Myth #2 - As long as you brush your teeth, you shouldn't have bad breath.**

- To sufficiently clean all the surfaces of your teeth, a person should brush for at least 2 minutes and at least twice a day. Brushing the tongue is important too because the bacteria loves to hang out there. Also, flossing helps remove harmful plaque and food particles that become stuck between the teeth and gums.

**Myth #3 - If you breathe into your hand, you'll know when you have bad breath.**

- When you breathe, you don't use your throat the same way you do when you talk. When you talk, you tend to bring out the odors from the back of your mouth where bad breath originates.

# Counts against Nicotine.—The physiological objections to the use of tobacco

1. The use of tobacco before one reaches maturity stunts the growth. The boy who uses it cannot develop into so strong and capable a man as he would by leaving it alone.
2. Tobacco injures the heart.
3. Tobacco injures the air passages, especially when inhalation is practiced.
4. Tobacco injures the nervous system and by this means interferes in a general way with the bodily processes. For the same reason it interferes with mental and moral development, the cigarette being a chief cause of criminal tendencies in boys.
5. In some cases tobacco injures the vision.
6. The tobacco habit is expensive and is productive of no good results.





# Counts against Alcohol

1. Alcohol has an injurious effect upon the white corpuscles of the blood and lessens the power of the body to resist attacks of disease
2. Alcohol injures the heart and the blood vessels
3. Alcohol causes diseases of the liver and kidneys and interferes with the discharge of waste through these organs
4. Alcohol interferes seriously with the regulation of the body temperature
5. Alcohol is one of the worst enemies to the nervous system
6. Through its effect upon the nervous system and through its interference with the production of bodily energy , alcohol greatly diminishes the efficiency of the individual.
7. The taking of alcohol in amounts that apparently do not harm the tissues is, nevertheless, liable to produce a habit which leads to its use in amounts that are decidedly harmful.

# Stimulants in Health Unnecessary

Stimulants have been aptly styled "the whips of the nervous system." The healthy nervous system, however, like the well-disposed and well-fed horse, needs no whip, but is irritated and harmed through its use. Even in periods of weakness and depression, stimulants are usually not called for, but a more perfect provision for hygienic needs.

Rest, relaxation, sleep, proper food, and avoidance of irritation, not stimulants, are the great restorers of the nervous system. A surplus of nervous energy gained through natural means is more conducive to health and effective work than any result that can possibly be secured through drugs.

Then comes the satisfaction of knowing that one has the expression of his real self in the way in which he feels and in what he accomplishes—not a "whipped-up" condition that must be paid for by weakness or suffering later on.

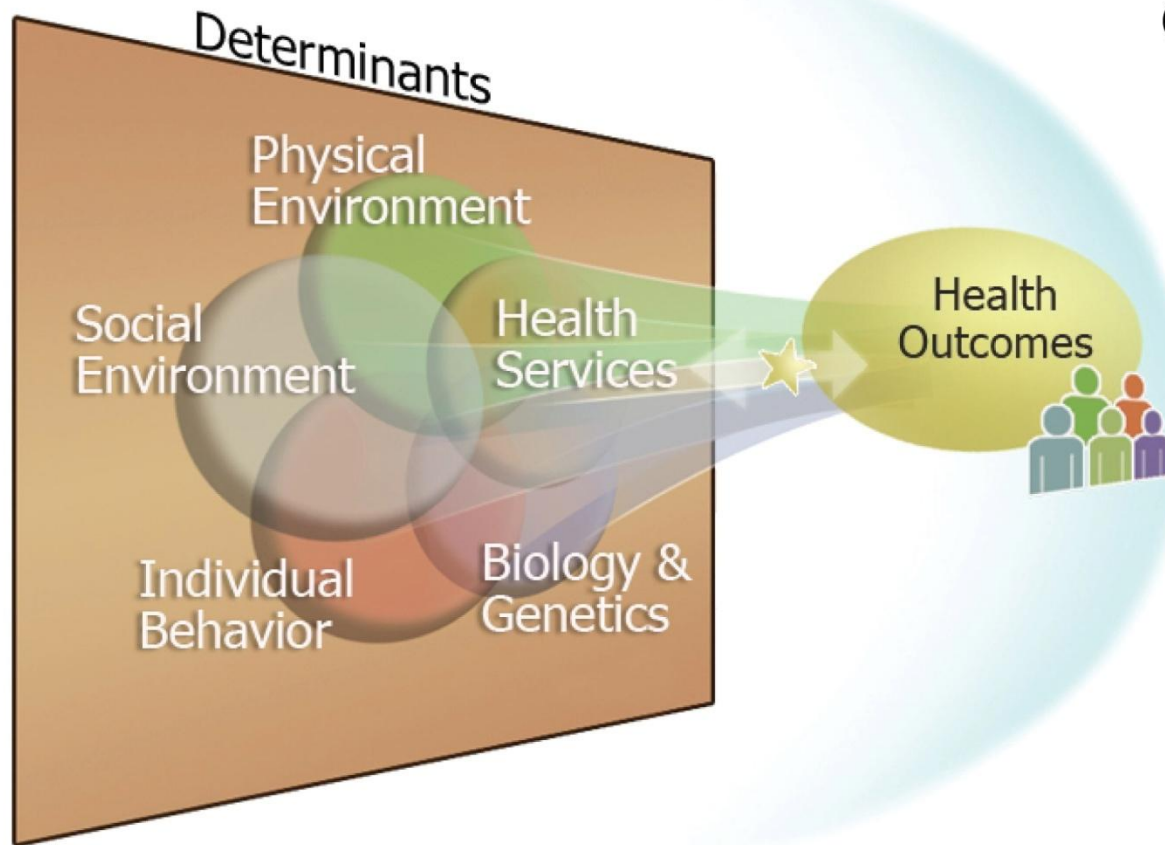
# A Special Problem for the Brain Worker

Farthest removed from those forms of activity which harmonize with the plan of the body, and which therefore are most hygienic, is that class of workers known as the professional class, or the "brain workers." This class includes not only the members of the learned professions—law, medicine, and the ministry—but a vast army of business men, engineers, teachers, stenographers, office clerks, etc

**The Remedy** lies in two directions—that of spending sufficient time away from one's work to allow the body to recover its normal condition, and that of counteracting the effect of the work by special exercise or other means. In many cases the first symptoms of weakness indicate a suitable remedy. Thus exhaustion from overwork suggests rest and recreation. The diverting of too much blood from other parts of the body to the brain suggests some form of exercise which will equalize the circulation. If feebleness of the digestive organs is being induced, some natural method of increasing the blood supply to these organs is to be looked for. And effects arising from lack of fresh air and sunlight are counteracted by spending more time out of doors. In counteracting tendencies to disease and in the maintenance of the functional equilibrium of the body, no agent has yet been discovered of greater importance than physical exercise, when applied systematically and persistently.

# Healthy People 2020

*A society in which all people live long, healthy lives*



## Overarching Goals:

- Attain high quality, longer lives free of preventable disease, disability, injury, and premature death.
- Achieve health equity, eliminate disparities, and improve the health of all groups
- Create social and physical environments that promote good health for all.
- Promote quality of life, healthy development and healthy behaviors across all life stages.