

Transportation and health: Back to the Future

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Transportation Research Board Executive Committee Meeting
June 24, 2024

“Traffic accidents constitute one of the greatest, perhaps the greatest, of the nation's public health problems.”

-John F. Kennedy, speaking during the 1960 presidential campaign

What is the role of public health in transportation?

-Senator Gary Peters



In public health, it means we take a *holistic and proactive approach to prevent and reduce the likelihood of injury or a negative health outcome.*

- Dr. Laura Sandt

Before TRB formed AME 70, AME 70 was making connections between health and transportation.

NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM

NCHRP RESEARCH REPORT 932

**A Research Roadmap for
Transportation and Public Health**

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Research sponsored by the American Association of State Highway and Transportation Officials
in cooperation with the Federal Highway Administration

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TRANSPORTATION RESEARCH BOARD

2019

Transportation agencies influence health outcomes across the lifespan



Improving access to opportunities and services



Providing opportunities for physical activity



Mitigating human exposure to environmental risks (air and noise pollution)



Preventing injuries and improving safety



Supporting resiliency to disaster and extreme weather events



Promoting community connectedness and vitality

CDC BULLETIN

OCT. NOV. DEC. 1946



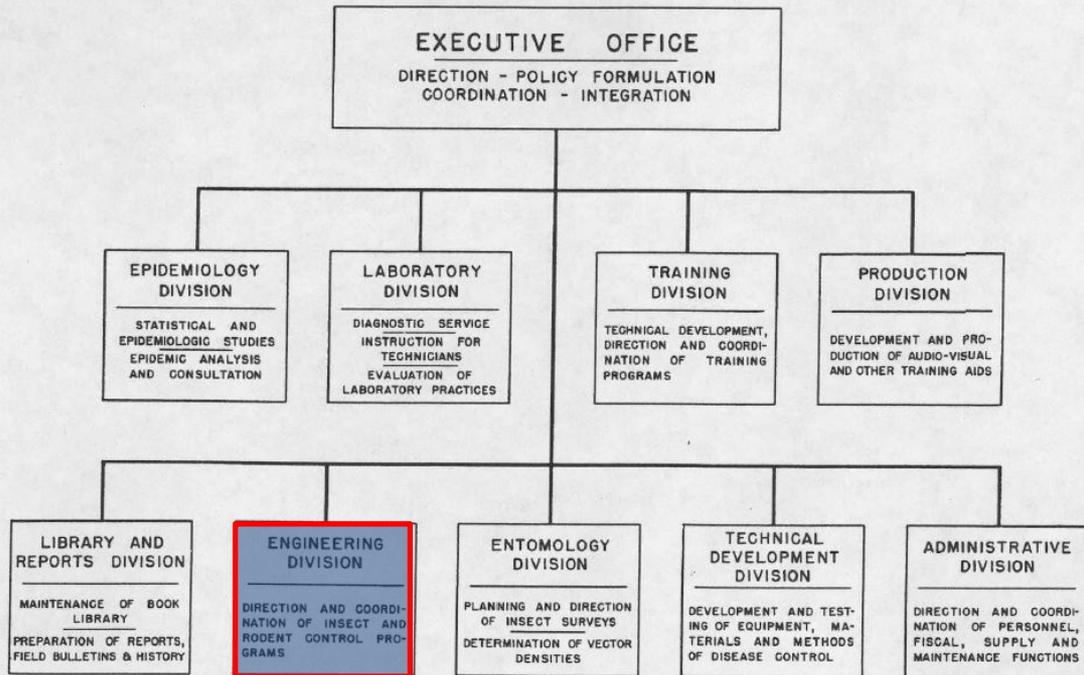
COMMUNICABLE
DISEASE
CENTER

US PUBLIC HEALTH SERVICE

ATLANTA, GA.

From the holdings of the National Archives at Atlanta

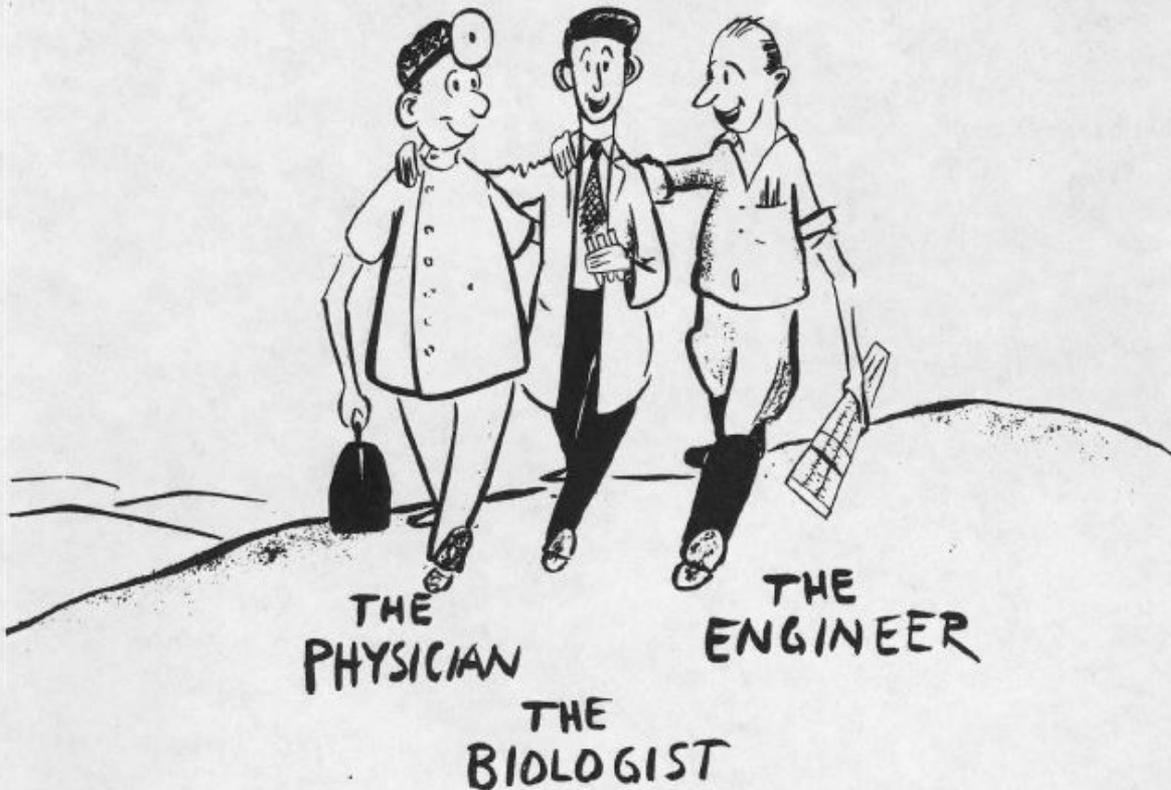
CHART II COMMUNICABLE DISEASE CENTER CHART SHOWING STRUCTURE AND FUNCTIONS OF HEADQUARTERS ORGANIZATION



FEDERAL SECURITY AGENCY - U. S. PUBLIC HEALTH SERVICE

COMMUNICABLE DISEASE CENTER - ATLANTA, GEORGIA

CDC



From the holdings of the National Archives at Atlanta

Communicable Disease Center (U.S.) (1946). The structure and scope of the Communicable Disease Center. 1946(4).



American Journal of Public Health
and THE NATION'S HEALTH Vol. XIII No. 10

Volume XXI

October, 1931

Number 10

Training for the Public Health
Engineer*

S. C. PRESCOTT, F. A. P. H. A.

Massachusetts Institute of Technology, Cambridge, Mass.



*"In this diversity of specialized pursuits which has thus been made possible, **we now recognize public health engineering as an essential calling, the prime object of which is to control the factors of the physical environment as they especially affect the health and welfare of aggregates of people**, whether in small groups, or in cities, states or special areas, or in the nation as a whole."*

American Journal of Public Health

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Training for the Public Health Engineer*

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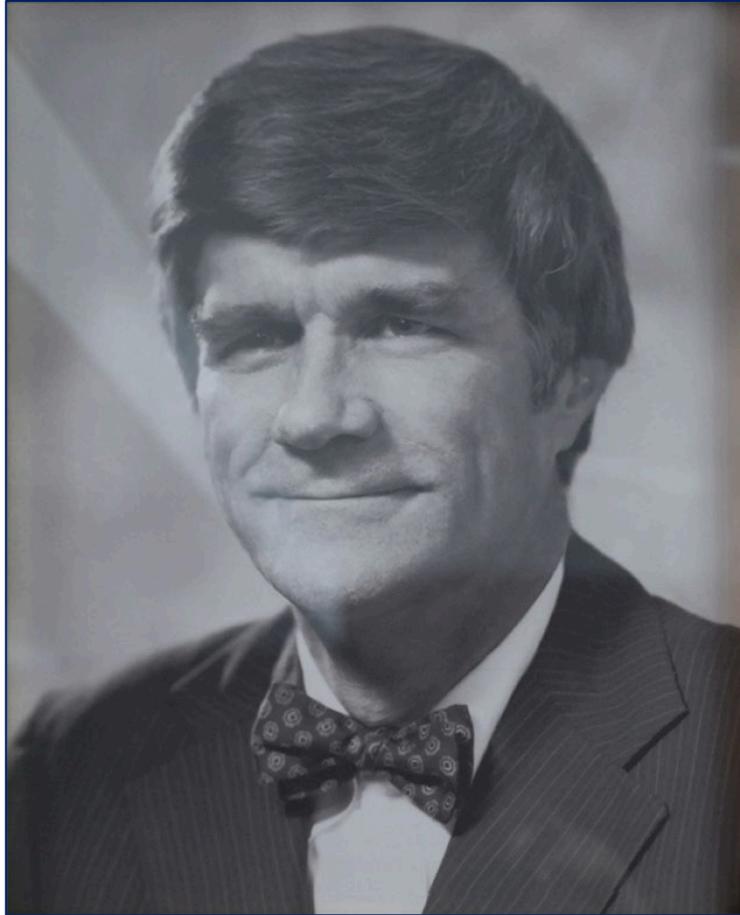


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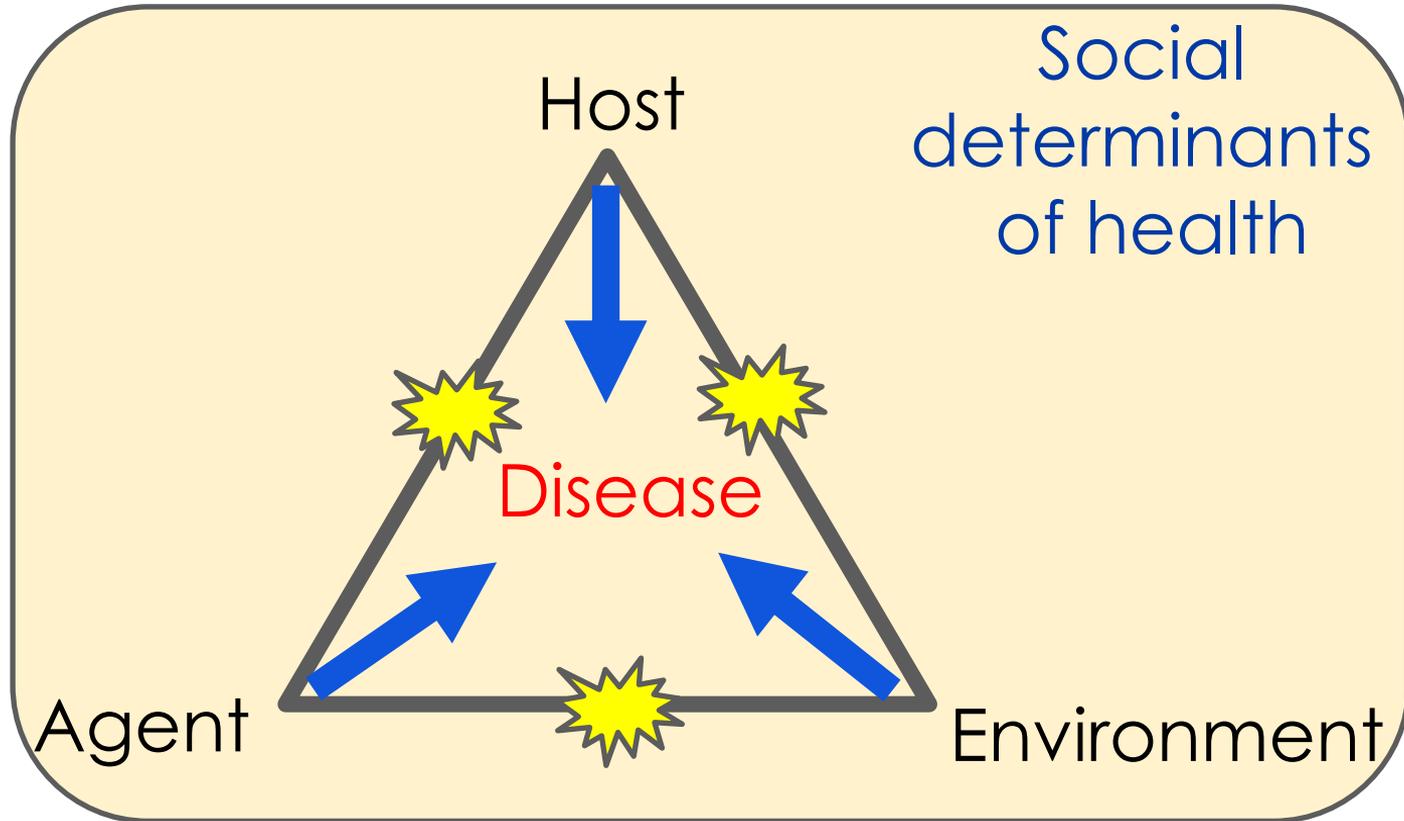
AMERICAN JOURNAL OF PUBLIC HEALTH

Third Year

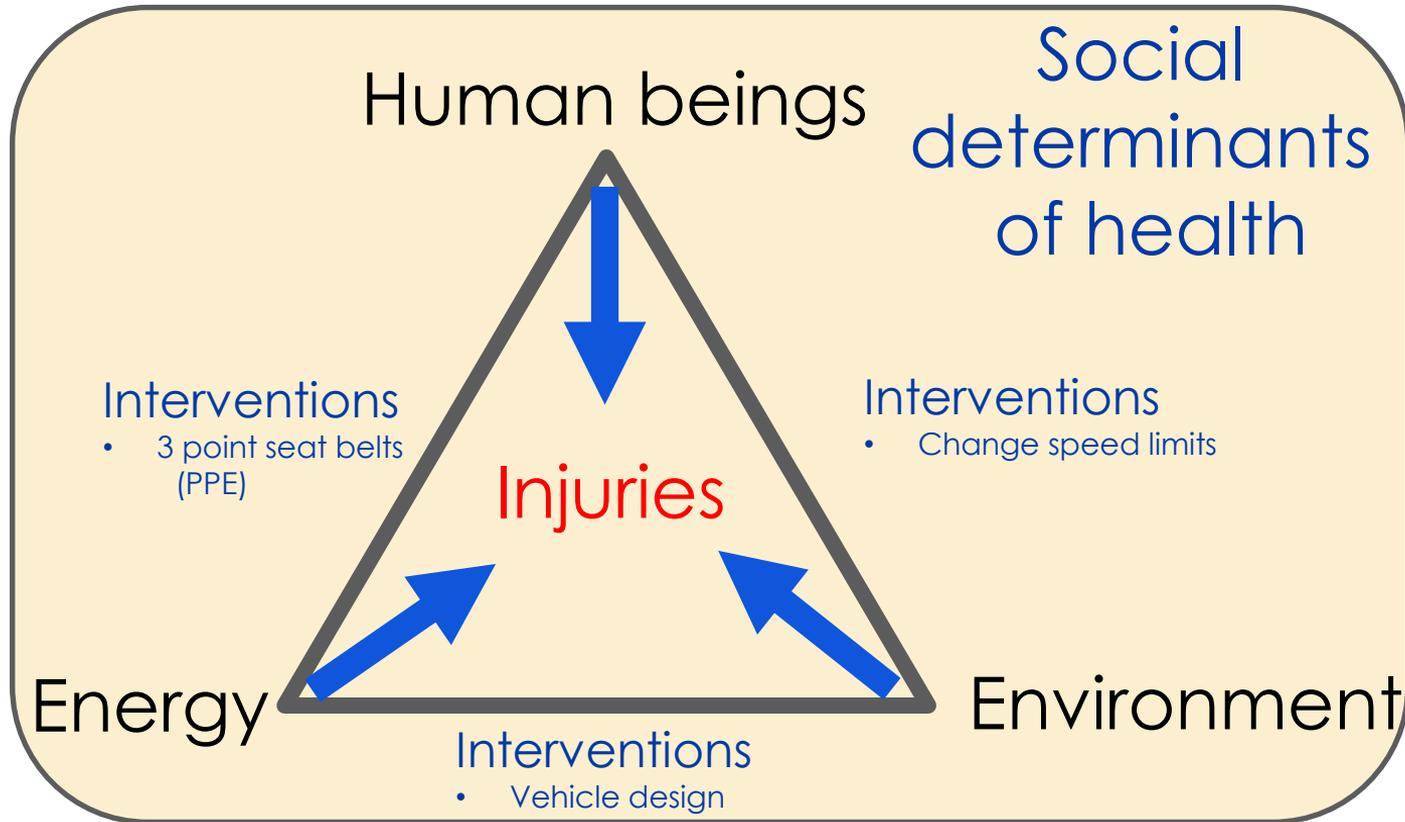
| | Hours per Week | | Hours per Week |
|--------------------------|----------------|-------------------------|----------------|
| Railway & Highway Eng. | 1-3 | Railway & Highway Eng. | 2-2 |
| Applied Mechanics | 3-6 | Structures | 3-5 |
| Organic Chemistry | 4-3 | Hydraulics | 3-5 |
| Personal Hygiene & Nutr. | 2-2 | Chem. of Water & Sewage | 4-1 |
| Bacteriology | 6-4 | Bacteriology | 6-3 |
| Political Economy | 3-3 | Municipal Sanitation | 4-4 |
| General Study | 4-4 | Political Economy | 3-3 |
| | <hr/> 23-25 | | <hr/> 25-23 |



Epidemiologic Triad



Epidemiologic Triad-Injury



Dr. Haddon's public health approach and insight led to motor vehicle safety being named one of 10 Great Public Health Achievements of the 20th Century by CDC...but transportation influences health in many other ways.

PUBLIC HEALTH ENGINEERING
TRAINING FOR THE PUBLIC HEALTH ENGINEER*

DISCUSSION

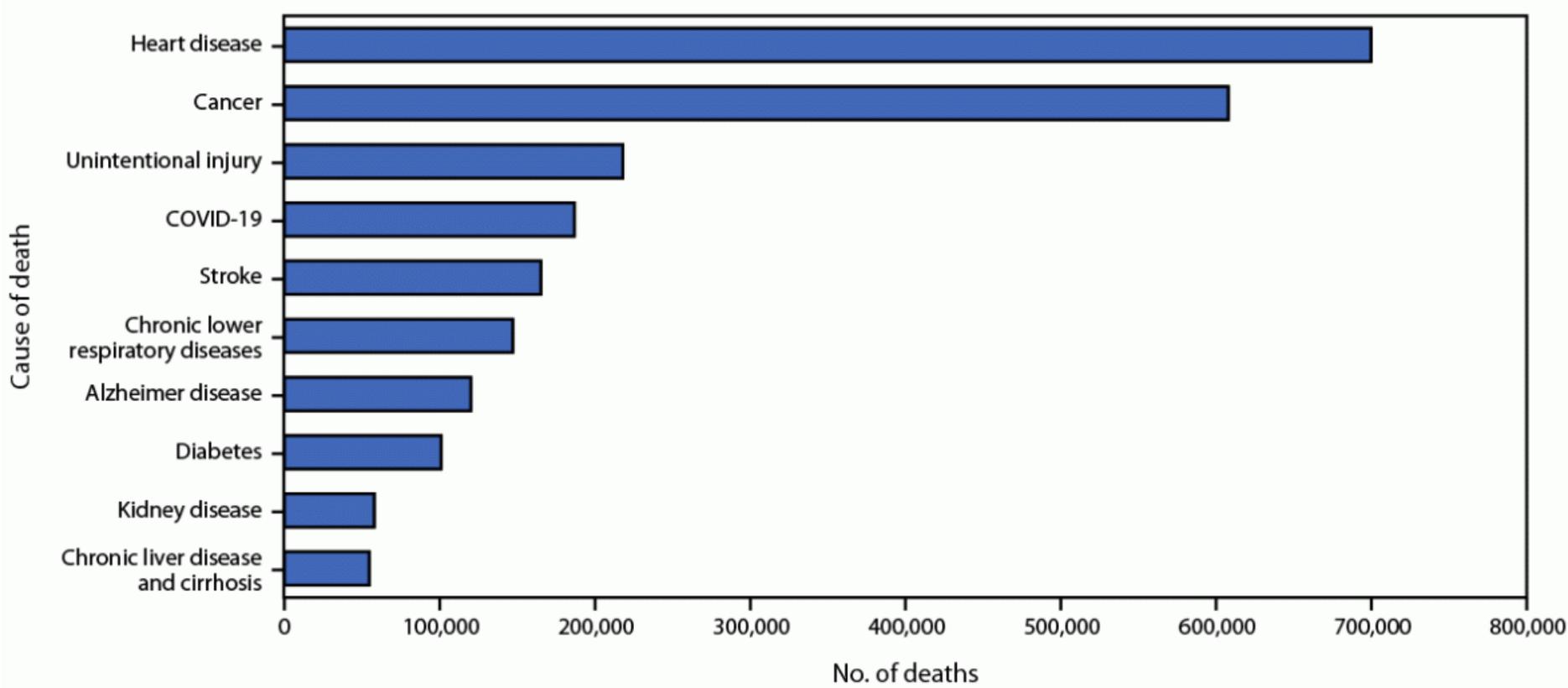
EARLE B. PHELPS

*Professor of Sanitary Science, College of Physicians and Surgeons,
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phasis. The sanitary engineer is primarily a designer or a builder. He is, in fact, a civil and hydraulic engineer specializing in a rather restricted field, confined for the most part to works relating to municipal water supply and sewerage.

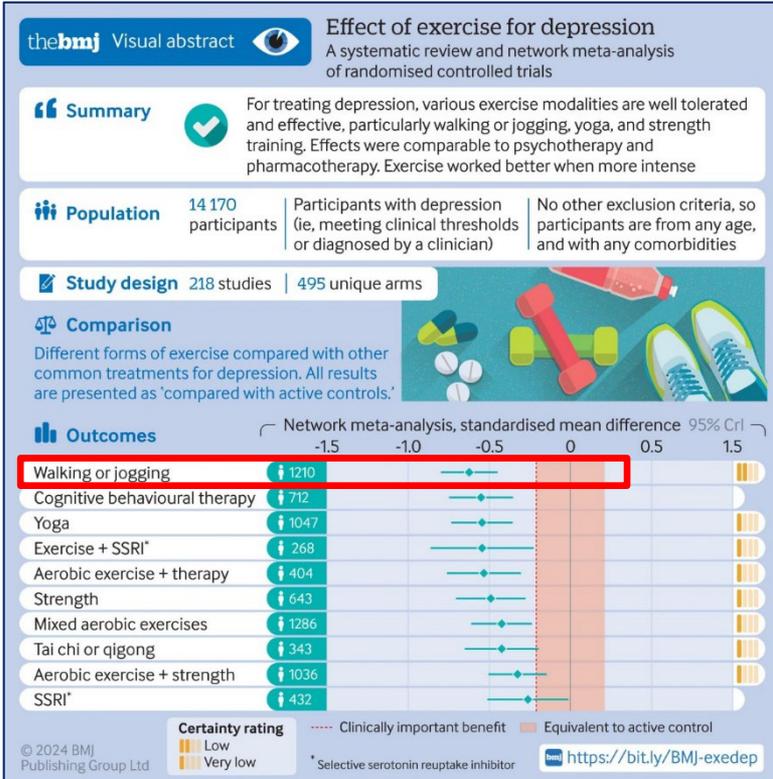
The public health engineer on the other hand is primarily a student and worker in the field of public health. The range of his activities is wider, and his training and knowledge are of essentially different character. It is not so important that he know how to build a sewer as that he know why sewers are necessary and what results may be anticipated from the discharge of their contents without treatment into a body of water. Trained to think with the

FIGURE 2. Leading underlying causes of death*†— National Vital Statistics System, United States, 2022





Transportation can improve people's lives

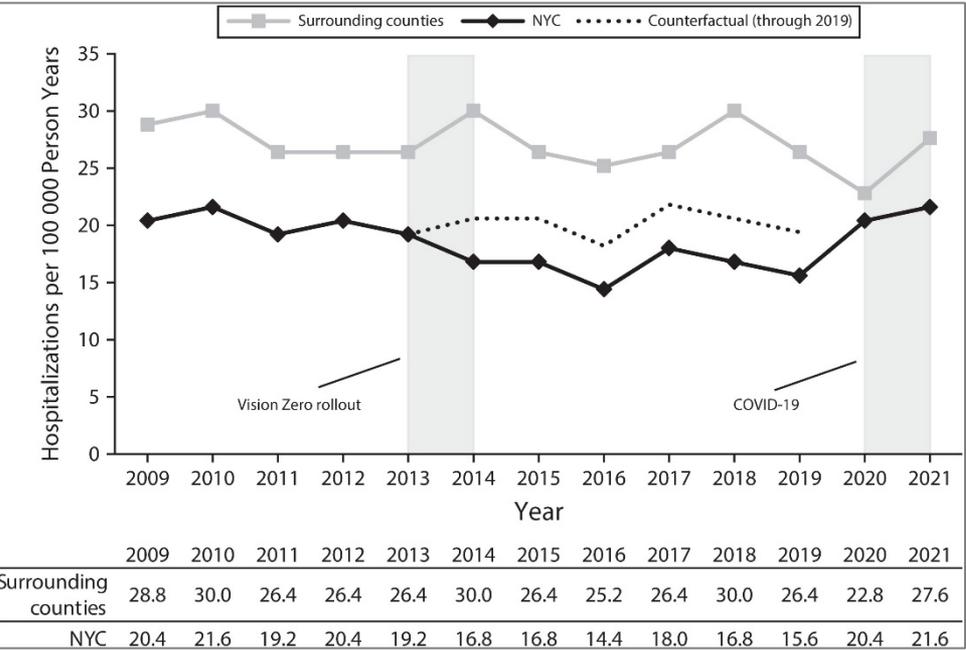


The effect of walking is comparable to that of pharmaceuticals in treating depression.

Physical activity is one of the best things to improve people's health today, tomorrow, and ten years from now.



Transportation policy is health policy



Medicaid spending was **\$90 million** less than expected after Vision Zero was implemented in New York.

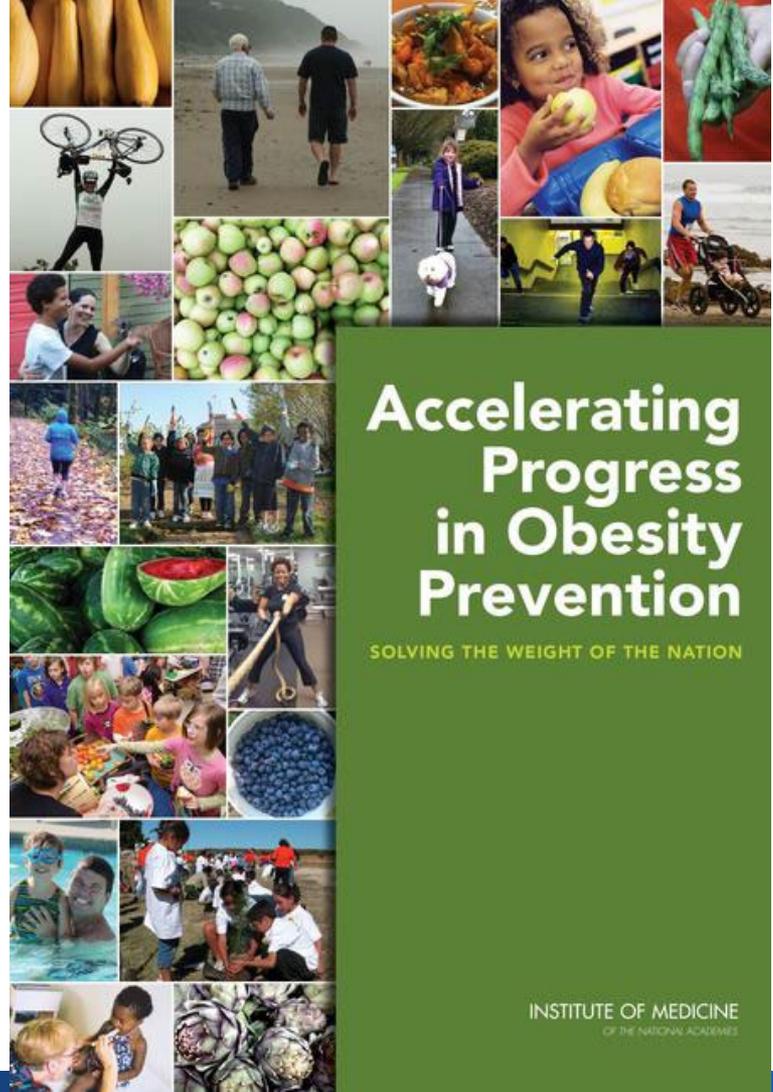
Kacie L. Dragan Sherry A. Glied “Major Traffic Safety Reform and Road Traffic Injuries Among Low-Income New York Residents, 2009–2021”, American Journal of Public Health 114, no. 6 (June 1, 2024): pp. 633-641. <https://doi.org/10.2105/AJPH.2024.307617>

FIRST, DO NO HARM

TO ERR IS HUMAN

BUILDING A SAFER HEALTH SYSTEM

I N S T I T U T E O F M E D I C I N E



Accelerating Progress in Obesity Prevention

SOLVING THE WEIGHT OF THE NATION

INSTITUTE OF MEDICINE
OF THE NATIONAL ACADEMIES

“But don't miss the point that two centuries of advances finally paid off in the recent decades. **Public health accumulates.** It took 180 years to eradicate smallpox after a vaccine became available. It will take 45 years to eradicate polio. But we are getting better and faster at using our tools and injury control has already paid off in its first years and will continue to get better.”

-Bill Foege, former Director of CDC, credited with devising the strategy to eradicate smallpox

Thank you.

For more information, contact CDC
1-800-CDC-INFO (232-4636)
TTY: 1-888-232-6348 [cdc.gov](https://www.cdc.gov)

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the U.S. Centers for Disease Control and Prevention.

