



MISSOURI DEPARTMENT OF
**HEALTH &
SENIOR SERVICES**

Health.Mo.Gov



MISSOURI DEPARTMENT OF
**HEALTH &
SENIOR SERVICES**

Public Health 101

Missouri Association of Counties Conference

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Course Topics

Introduction to Public Health

1. History of Public Health
2. A Public Health Approach
3. Core Functions and Essential Services of Public Health
4. Stakeholder Roles in Public Health



Learning Objectives

After this course, you will be able to

- describe the purpose and importance of public health in your community
- identify prominent events in the history of public health
- recognize the core public health functions and services
- describe the role of different stakeholders in the field of public health



Topic 1

The History of Public Health



Public Health
Prevent. Promote. Protect.



Public Health Defined



Photo: IF Fisher and EL
Fisk

“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.”

—CEA Winslow



Sanitation and Environmental Health

500 BCE



Greeks and Romans practice community sanitation measures

1840s



The Public Health Act of 1848 was established in the United Kingdom

1970



The Environmental Protection Agency was founded



Pandemics

Influenza



500 million infected
worldwide in 1918

Polio



Vaccine introduced
in 1955; eradication
initiative launched in
1988

HIV



34 million living with
HIV worldwide; 20%
decline in new
infections since 2001



Preparedness for Disaster Response

Biologic
Warfare



Plague used as a
weapon of war during
the Siege of Kaffa

September
2001



Public health
surveillance
conducted after
the 9/11 attacks

Hurricane
Katrina



Emergency services,
public health
surveillance, and
disease treatment
provided



Prevention Through Policy

Book
of Leviticus



The world's
first written
health code

Tobacco
Laws



Laws banning smoking
in public places

Obesity



Food labeling and
promotion of physical
activity



Topic 2

What is public health?





What is Public Health?

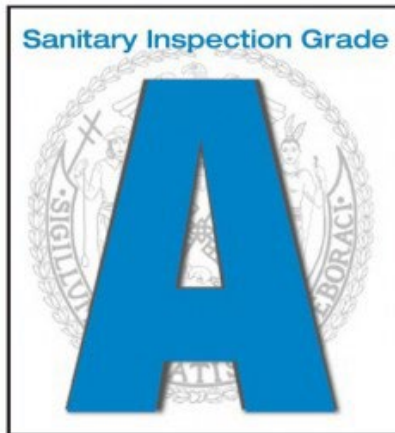


NO SMOKING





What is Public Health?



New York City requires restaurants to post letter grades that correspond to scores received from your sanitary inspection. Grade cards MUST BE POSTED where they are easily visible to the public.

YOUR ESTABLISHMENT NEEDS AN

“A”

WE DELIVER — 100% GUARANTEED

EVERY TIME!*



EHA CONSULTING GROUP, INC.

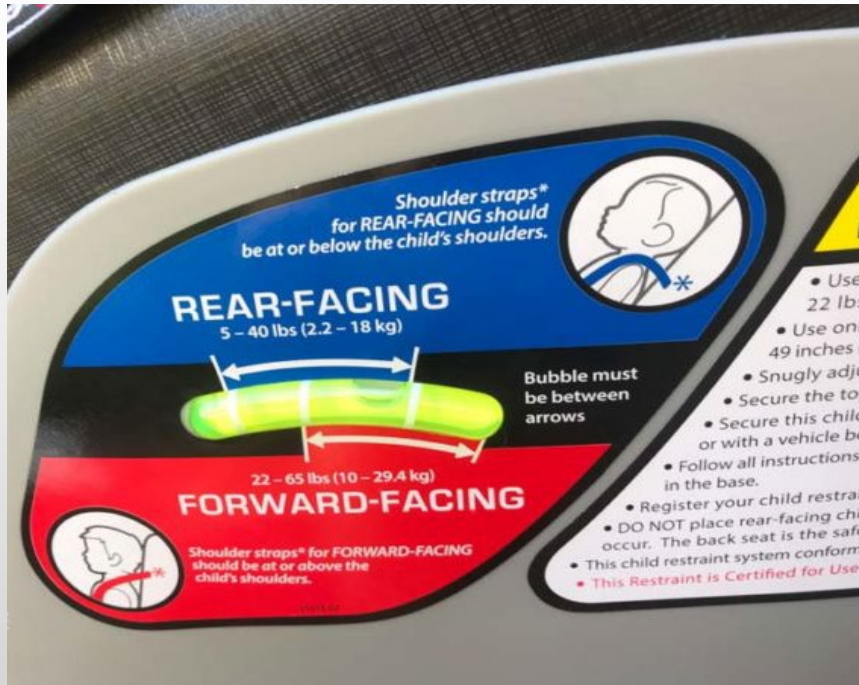
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*Based on DPH recommendations as implemented.

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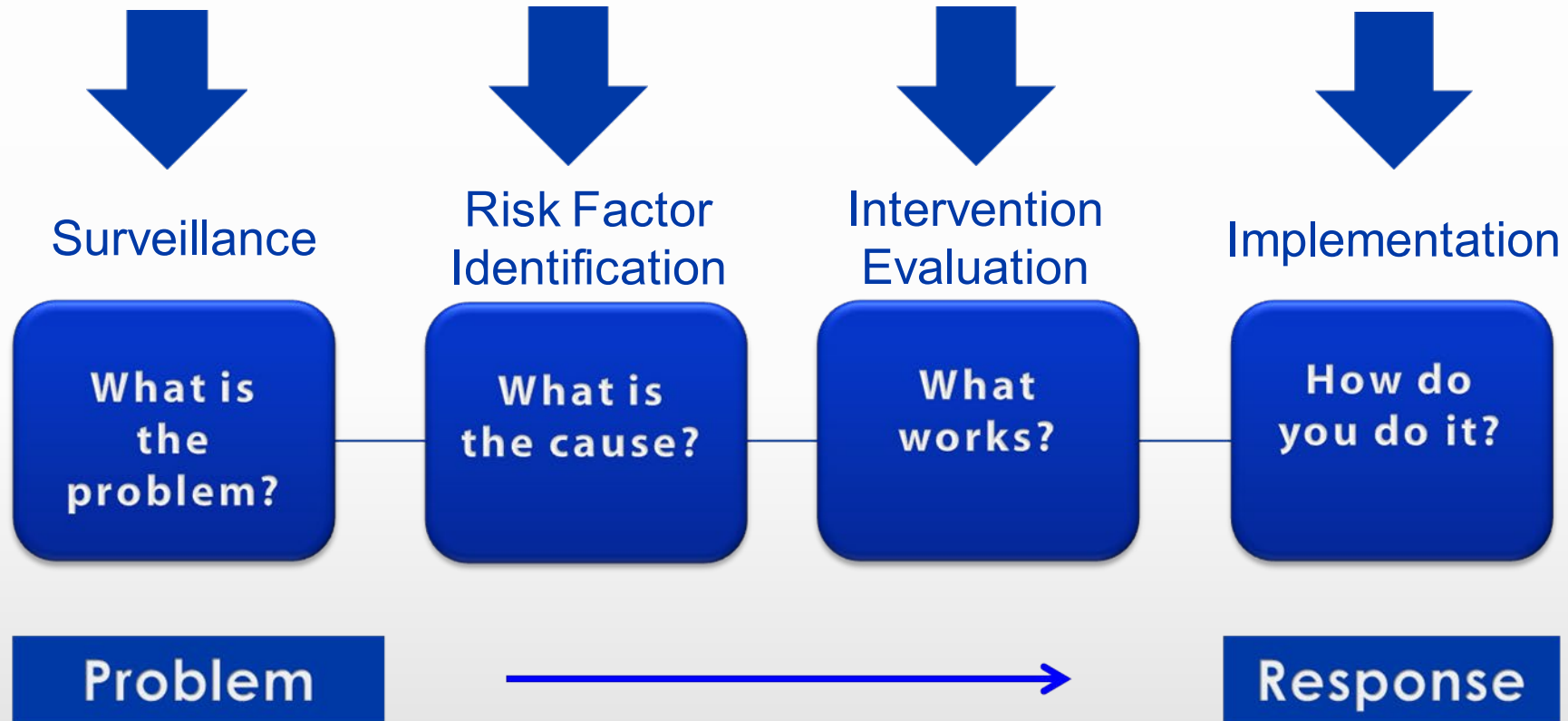


What is Public Health?





A Public Health Approach





Public Health Core Sciences





Cholera — A Public Health Approach

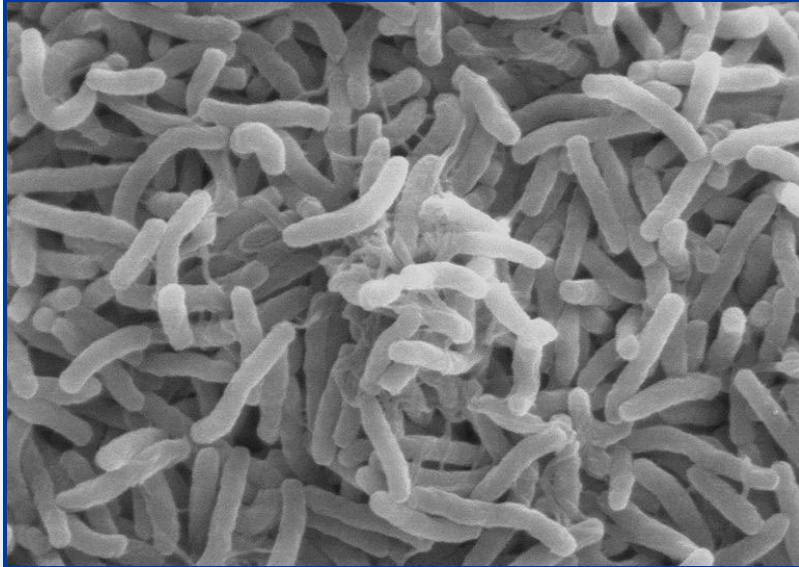


Photo: TJ Kim, MJ Lafferty, CMP Sandoe, and R Taylor,
Dartmouth Medical School

Cholera, a fatal intestinal disease, was rampant during the early 1800s in London, causing death to tens of thousands of people in the area. Cholera was commonly thought to be caused by bad air from rotting organic matter.



John Snow, Physician



Photo: London School of Hygiene
and Tropical Medicine

John Snow is best known for his work tracing the source of the cholera outbreak and is considered the father of modern epidemiology.



Epidemiology — What is the Problem?

Cluster of Cholera Cases, London — 1854

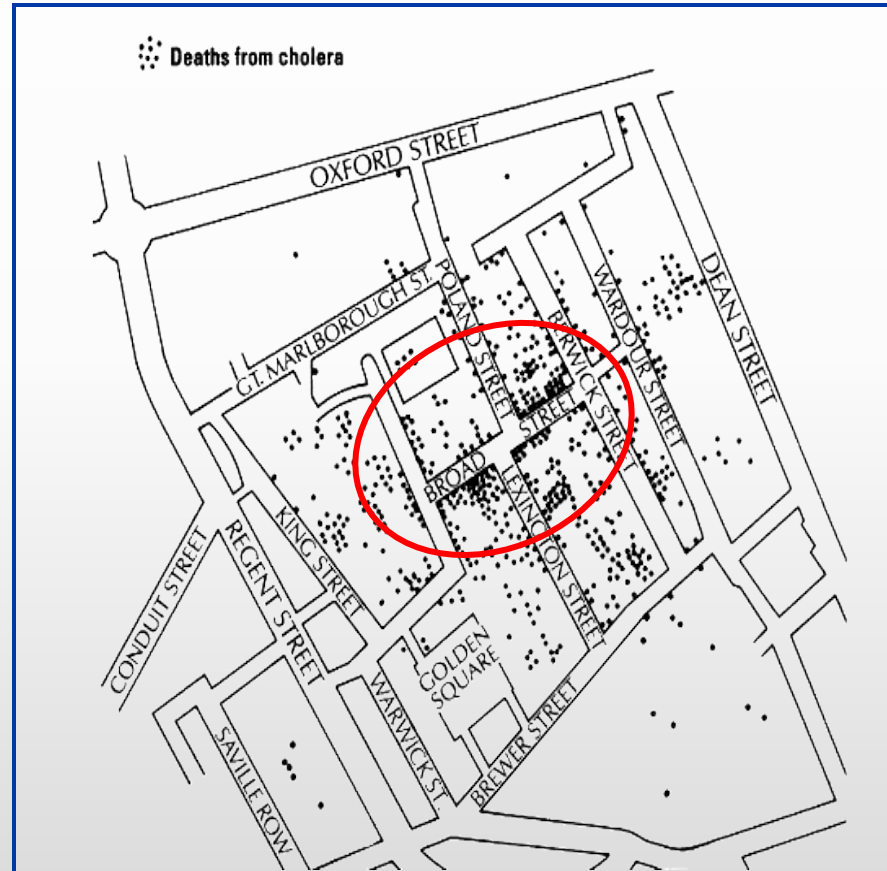


Image: The Geographical Journal



Risk Factor Identification — What Is the Cause?

Cluster of Cholera Cases and Pump Site Locations

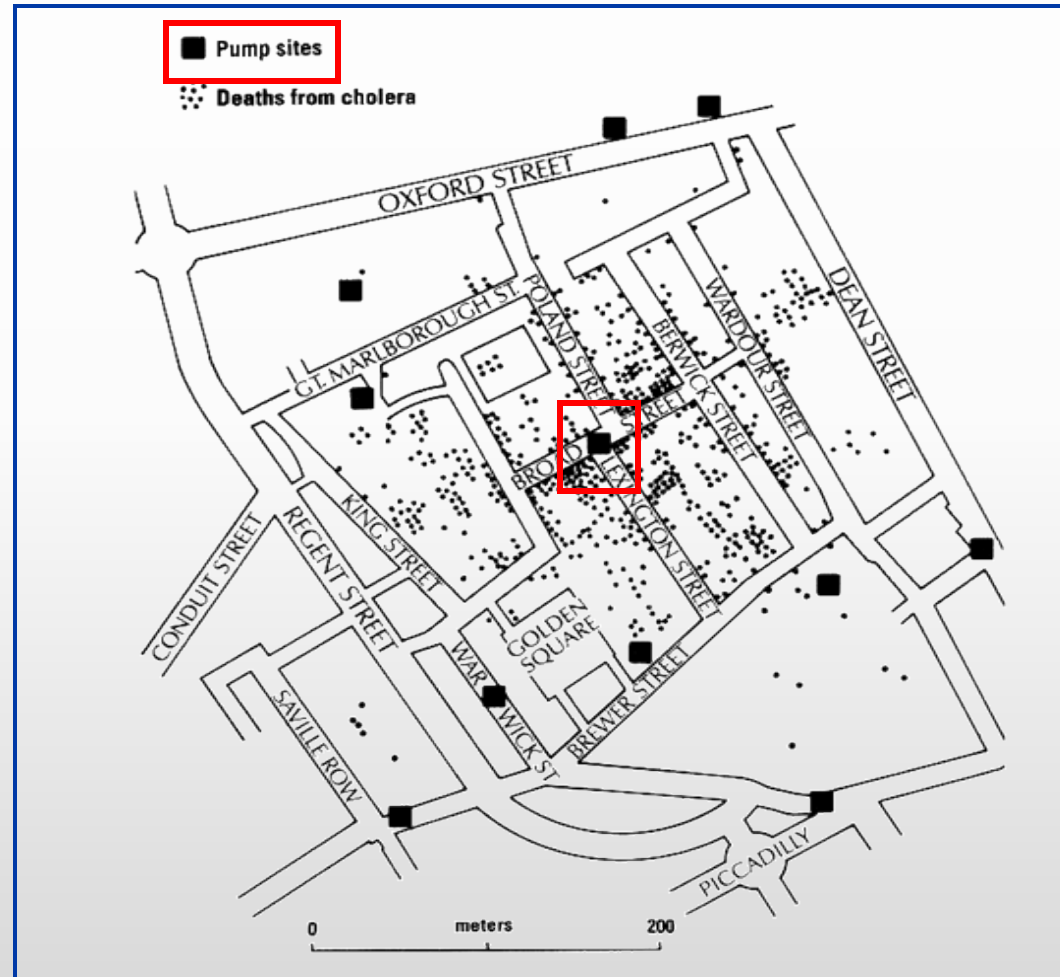


Image: The Geographical Journal



Intervention Evaluation — What Works?

Through continuous research, Snow understood what interventions were required to

- stop exposure to the contaminated water supply on a larger scale, and
- stop exposure to the entire supply of contaminated water in the area



Implementation — How Do You Do It?



Photo: Justin Cormack

John Snow's research convinced the British government that the source of cholera was water contaminated with sewage.



Topic 3

Core Functions and Essential Services of Public Health





Three Core Functions of Public Health

Assessment



Systematically collect, analyze, and make available information on healthy communities

Policy



Promote the use of a scientific knowledge base in policy and decision making

Assurance



Ensure provision of services to those in need



Core Functions at Government Levels

	Assessment	Policy Development	Assurance
Federal	National tobacco public health surveillance	Smoking ban on commercial flights	Federal grants for antismoking research
State	Monitor state tobacco use	Increase tobacco tax	Funding for campaign through Proposition 99
Local	Report on local tobacco use	County laws prohibiting smoking in bars	Resources to help smokers quit in multiple languages



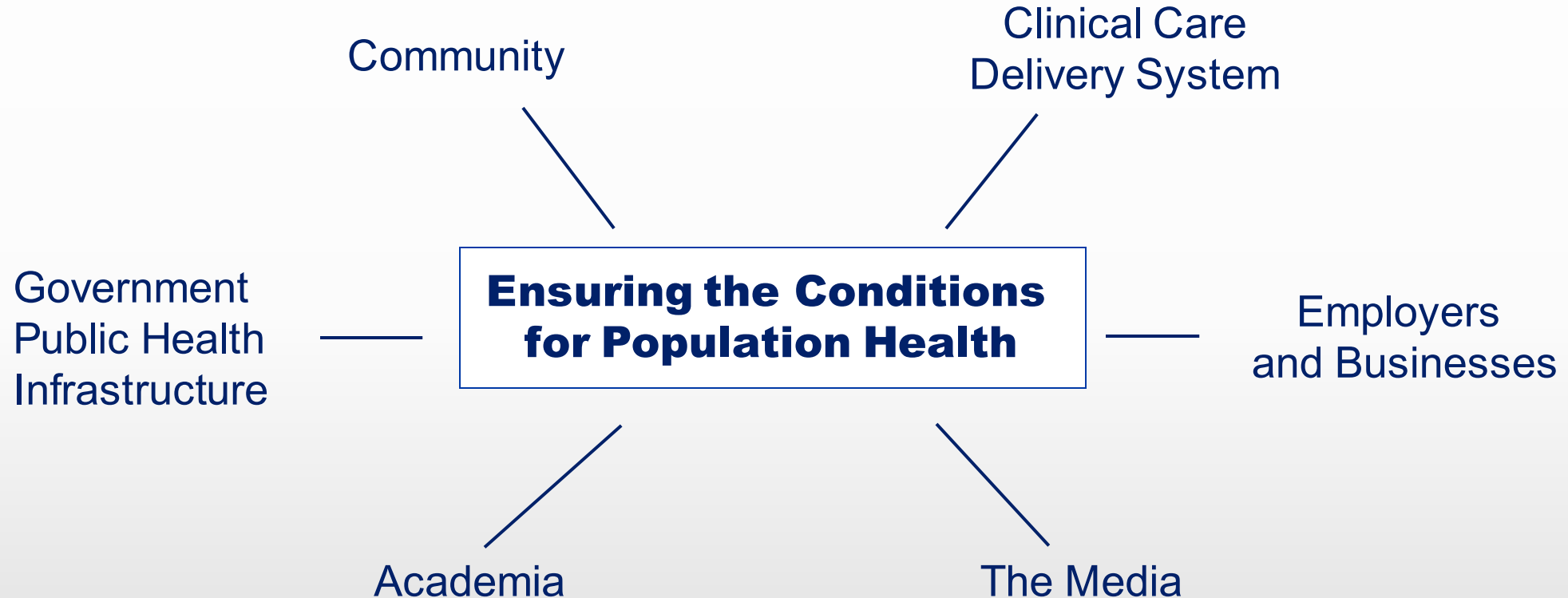
Topic 4

Stakeholder Roles in Public Health





Partners in the Public Health System





Nongovernmental Organization Examples

Organization Type	Example
Professional membership organizations	American Public Health Association
Associations related to a specific health concern	American Cancer Society
Organizations of citizens focused on health concerns	Americans for Nonsmokers Rights
Foundations that support health projects and influence public policy development	Bill and Melinda Gates Foundation



Other Partners in Public Health

Media



- Vehicle for public discourse
- Health education and promotion
- Health communication
- Social media as catalyst

Employers and Businesses



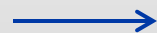
- Employer-sponsored health insurance programs
- Wellness initiatives and benefits
- Healthy workplaces and communities

Government Agencies



- City planning
- Education
- Health in all policies

Academia



- Education
- Training
- Research
- Public Service

Fluoridation is the adjustment of fluoride in drinking water to a level that is effective for preventing tooth decay. The award recognizes those communities that achieved excellence in community water fluoridation by maintaining a consistent level of fluoride in drinking water throughout 2021.

For 2021, a total of 1,394 public water systems in 28 states received these awards, including thirty in Missouri.

“Water fluoridation is one of the best investments that a community can make in maintaining the oral health of its citizens. It is equally as effective in preventing cavities in children and adults,” stated Casey Hannan, MPH, Director, CDC Division of Oral Health. “Fluoridation is also highly cost effective. Studies continue to show that for every \$1 a community invests in water fluoridation, \$20 are saved in dental treatment costs.”

Community water fluoridation has been recognized by CDC as one of 10 great public health achievements of the 20th Century. CDC recommends water fluoridation as one of the most practical, cost-effective, equitable, and safe measures a community can take to prevent tooth decay and improve oral health.

“We are so very excited to present this award to these Missouri community water systems and offer our continued support from the Office of Dental Health,” said Missouri State Dental Director Jacqueline Miller, DDS, MS, MPH. “Water operators are the unsung champions of this public health initiative providing safe, clean and fluoridated water. They deserve our praise, admiration, and appreciation as they continue to protect the oral health of their community.”



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THANK YOU!



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PROTECTING HEALTH AND
KEEPING PEOPLE SAFE