

# Safeguarding Dental Health Through Infection Prevention and Control Adherence

Published: October 19<sup>th</sup>, 2023

As health care policies and infection control guidelines evolve — and evolve quickly — it's important for practitioners to have information sources they can trust. For more than 70 years, the Centers for Disease Control and Prevention (CDC) has been just that. But CDC offers more resources than many practitioners may realize.

This month, we spoke with Gregory Holder, MPH, a dedicated Public Health Analyst at CDC's Division of Oral Health and volunteer docent at the [David J. Sencer CDC Museum](#), to guide us through the vital mission and purpose of the CDC. He details not just the evolution of the CDC to its current role as the nation's premier health promotion and disease prevention authority, but also essential resources and training CDC provides to ensure adherence to infection prevention and control guidelines within dental health care settings.

## Q: What is the mission and purpose of the CDC?

The Centers for Disease Control and Prevention (CDC) [works 24/7](#) to protect America from health, safety, and security threats, both foreign and in the United States. As the nation's health protection agency, CDC conducts critical science and provides health information that protects our nation against expensive and dangerous health threats and responds when these arise.

CDC's [Division of Oral Health](#) (DOH) — part of the National Center for Chronic Disease Prevention and Health Promotion — aims to prevent and control oral diseases and conditions by building the knowledge, tools, and networks that promote healthy behaviors and effective public health practices and programs. We do this by promoting proven interventions, such as optimally fluoridated water and dental sealants to reduce the rate of cavities, especially for populations at highest risk. DOH supports state and territorial oral health programs, collects surveillance data on oral diseases, and develops and promotes adherence to infection prevention and control guidelines for dental health care personnel. The division supports the integration of medical and dental care to address other chronic diseases associated with poor oral health. DOH also strengthens the dental public health workforce with a [Dental Public Health Residency Program](#).

## Q: Why and how was the CDC formed?

On July 1, 1946, the [Communicable Disease Center](#) opened its doors and occupied one floor of a small building in Atlanta. Its primary mission was simple yet highly challenging: prevent malaria from spreading across the nation. Armed with a budget of only \$10 million and fewer than 400 employees, the agency's early challenges included obtaining enough trucks, sprayers, and shovels necessary to wage war on mosquitoes.

As the organization took root deep in the South, once known as the heart of the malaria zone, Communicable Disease Center Founder Dr. Joseph Mountin continued to advocate for public health issues and to push for the Center to extend its responsibilities to other communicable diseases. In 1947, the Communicable Disease Center made a token payment of \$10 to Emory University for 15 acres of land on Clifton Road in Atlanta that now serves as CDC headquarters. The new institution expanded its focus to include all communicable diseases and to provide practical help to state health departments when requested.

The agency's name was changed in 1970 to the Center for Disease Control, then in 1980 to the Centers for Disease Control to recognize the multiple constituent centers focused on infectious disease, chronic disease, prevention services, and environmental health and injury control. In 1992, the agency was renamed Centers for Disease Control and Prevention to reflect this broader role and vision. Today, CDC is one of the major operating components of the Department of Health and Human Services and is recognized as the nation's premier health promotion, disease prevention, and emergency preparedness agency.

## Q: What is a hot topic in infection control that you want the dental community to be aware of?

Dental unit water quality is an important topic, as dental providers and patients could be placed at risk of adverse health effects if dental unit water is not appropriately treated. On October 31, 2022, CDC released a [Health Advisory Notice](#) to emphasize the importance of following existing recommendations for maintaining and monitoring dental waterlines. This release was a result of multiple outbreaks of nontuberculous Mycobacteria (NTM) infections that occurred in children who received pulpotomies in pediatric dental clinics where the dental treatment water contained high levels of bacteria.

CDC recommends that dental health care personnel (DHCP) follow recommendations for monitoring water quality provided by the manufacturer of the unit or waterline treatment product. CDC's most recent publication in dental infection prevention and control, the [Summary of Infection Prevention Practices in Dental Settings: Basic Expectations for Safe Care](#), states that all dental units should use systems that treat water to meet drinking water standards (i.e.,  $\leq 500$  CFU/mL of heterotrophic water bacteria). Independent reservoirs or water-bottle systems alone are not sufficient. Commercial products and devices are available that can improve the quality of water used in dental treatment. During surgical procedures, use only sterile solutions as a coolant/irrigant using an appropriate delivery device, such as a sterile bulb syringe, sterile tubing that bypasses dental unit waterlines, or sterile single-use devices.

In November 2022, CDC's Division of Oral Health requested assistance from the Healthcare Infection Control Practices Advisory Committee (HICPAC) in updating dental waterline guidelines. In response to that meeting, HICPAC developed a workgroup charged with updating guidelines for dental unit waterlines, biofilm, and water quality, which is the first step in the [guideline development process](#). The workgroup contains professionals with a variety of expertise, including infectious disease, pediatric dentistry, endodontics, microbiology, manufacturing, and engineering. The workgroup held its first meeting in July 2023, and guideline development is expected to take 18–24 months. Dental waterline monitoring frequency is one of our topics of interest, and we expect the workgroup to discuss this as a potential topic for the development of recommendations.

The Organization for Safety, Asepsis and Prevention (OSAP) released an additional resource for this topic in their [Dental Unit Water Quality: Organization for Safety, Asepsis and Prevention White Paper and Recommendations—2018](#).

## Q: What are some important resources and training to call out for the dental community?

CDC offers [Foundations: Building the Safest Dental Visit](#), a free, web-based, interactive, self-paced training designed to help increase adherence to established infection prevention and control guidelines among dental health care personnel. This training provides an overview of the principles of infection prevention and control that form the basis for CDC's recommendations for dental health care settings. Learners who complete the training are eligible for three continuing education credits at no charge, provided by OSAP.

CDC's [Guidelines for Infection Control in Dental Health-Care Settings — 2003](#) were developed by CDC in collaboration with other authorities on infection control to provide dental health care personnel overall guidance on infection prevention practices. These guidelines describe the minimum standard of practice recommended for safe care in all dental settings.

CDC's [Summary of Infection Prevention Practices in Dental Settings: Basic Expectations for Safe Care](#) is a user-friendly summary of key recommendations relevant to dental settings. The Summary reflects the existing evidenced-based recommendations presented in the 2003 Guidelines as well as the other selected CDC recommendations related to dentistry. The Summary reinforces the importance of Standard Precautions as the key to preventing transmission of infectious agents in clinical dental settings.

CDC's [Guideline for Disinfection and Sterilization in Healthcare Facilities \(2008\)](#) presents evidence-based recommendations on the preferred methods for cleaning, disinfecting and sterilizing patient care medical devices and for cleaning and disinfecting the health care environment.

CDC's [Interim Infection Prevention and Control Recommendations for Healthcare Personnel During the Coronavirus Disease 2019 \(COVID-19\) Pandemic](#) provides a framework for facilities to implement select infection prevention and control practices based on their individual circumstances. These guidelines, which apply to all health care settings, also give [setting-specific considerations for dental settings](#). These recommendations continue to apply even after the expiration of the federal COVID-19 emergency.

*The combination of training and extensive resources the CDC offers are key to ensuring dental health care professionals keep abreast of new developments and continue to deliver the highest level of care to their patients.*

## Author



Gregory Holder  
MPH

**Gregory Holder, MPH** serves as a Policy Analyst at CDC's Division of Oral Health, where he analyzes legislation and other health policy on how it impacts oral health, helps increase adherence to IPC guidelines, and responds to public inquiries. He earned a Master of Public Health in Analysis and Management with a focus in infectious disease epidemiology from East Carolina University in Greenville, NC and a Bachelor of Political Science focusing on constitutional law from Piedmont College in Demorest, GA.