

epiConnections

A BIMONTHLY NEWSLETTER OF THE COMMUNICABLE DISEASE AND EMERGENCY MANAGEMENT DIVISION OF BOULDER COUNTY PUBLIC HEALTH

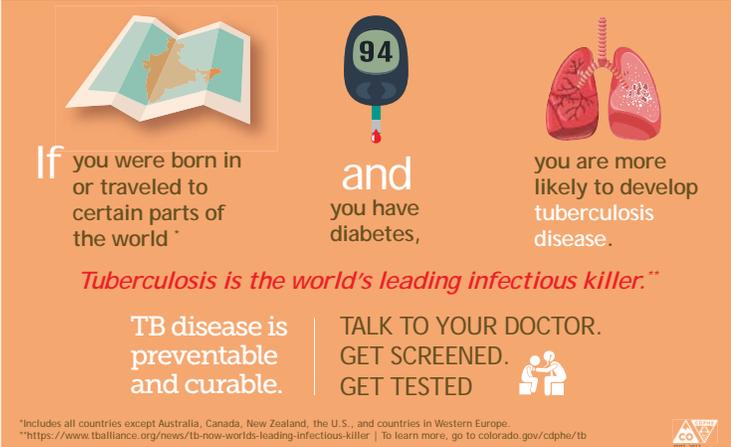
Diabetes + TB = Double Trouble

In 2016, 31% of the individuals diagnosed with active tuberculosis (TB) in Colorado also had diabetes mellitus (DM). Worldwide, it is estimated that about 15% of TB is attributable to DM.

Individuals with DM have about a three times greater risk of progressing from latent to active TB than someone without DM. In addition, diabetics with active TB are twice as likely to die from TB and four times more likely to relapse after completing standard TB treatment. They also can respond slower to treatment, with smears and cultures remaining positive and therefore potentially infectious for a longer period of time. TB can worsen blood sugar control, and patients being treated for both TB and DM can also experience increased drug side effects and drug interactions that can reduce the effectiveness of both treatments.

While TB incidence is slowly declining, DM is on the rise. The International Diabetes Federation estimates that the number of people with DM worldwide will rise by 55% within the next 20 years; it will increase even more in areas of the world with particularly high burdens of TB. This could reduce the improvements seen in the incidence of TB.

Screening: Bidirectional screening (i.e. screening DM patients with risks of latent TB infection [LTBI] and screening TB patients for DM) is recommended by the World Health Organization (WHO) and the International Union Against TB and Lung Disease. The US Preventive Services Task Force (USPSF) now recommends LTBI screening for populations at increased risk. In Colorado, this includes primarily individuals who were born, lived in, or traveled to countries with an increased incidence of TB and close contacts to persons with active TB.



If you were born in or traveled to certain parts of the world * and you have diabetes, you are more likely to develop tuberculosis disease.

Tuberculosis is the world's leading infectious killer.**

TB disease is preventable and curable. TALK TO YOUR DOCTOR. GET SCREENED. GET TESTED

*Includes all countries except Australia, Canada, New Zealand, the U.S., and countries in Western Europe. **<https://www.tb Alliance.org/news/tb-now-worlds-leading-infectious-killer> | To learn more, go to colorado.gov/cdphe/tb

Hepatitis A Outbreaks Increasing Nationwide

In 2017, several states experienced large hepatitis A outbreaks. Common risk factors of homelessness, drug use, and sexual activity have been identified as the transmission in these outbreaks. Hepatitis A is a vaccine-preventable disease that can damage the liver and is spread person-to-person through the fecal-oral route or from exposure to contaminated food or water. While proper handwashing can prevent spread of infection, vaccination provides long-term protection against the virus.

As of January 4, 2018, California has reported 683 cases, including 443 hospitalizations and 21 deaths; Michigan has reported 658 cases, including 539 hospitalizations and 22 deaths; Utah has reported 124 cases, including 68 hospitalizations. Other states with outbreaks include Colorado, Arizona, New York, and Kentucky. In Colorado, there have been 63 total cases as of January 5; 4 were among Boulder County residents.

The 2017 hepatitis A outbreak cases in Colorado disproportionately occurred in men who have sex with men, making this an important group on which to continue focusing prevention efforts (i.e., vaccination and education). By the end of the year, Colorado had two cases of hepatitis A in homeless persons; both were exposed in states experiencing outbreaks, but the cases became symptomatic and were tested in Colorado. While there is currently no evidence of hepatitis A transmission occurring among homeless persons in Colorado, because the population tends to move around more often, it is possible that persons exposed in other states may pass through Colorado.

In response, Boulder County Public Health has been working closely with a variety of community partners to provide free hepatitis A vaccine to people who are homeless; people who use injection and non-injection drugs; men who have sex with men; and people who work with these populations.

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Communicable Disease Control Program
HIV Prevention Program
Emergency Management Program
Immunization Program
TB Control Program

If your patient population is overwhelmingly made up of patients at risk for LTBI, consider starting screening in "bite-sized" chunks. Patients with DM is the ideal place to start. For those who received a Bacille Calmette-Guerin (BCG) vaccine or who were born in

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parts of the world where TB is endemic, testing with an Interferon Gamma Release Assay (IGRA), either a QuantiFERON or a T-Spot, is preferable. For those without BCG vaccine who were born in countries with low incidence of TB but have a travel history to areas where TB is endemic, a TB skin test (TST) can be used.

If you would like a handout in English and/or Spanish to post or give to your patients, or for questions about TB screening or LTBI treatment, contact Carolyn Bargman at 303-413-7516 or 303-602-7240 or email cbargman@dhha.org.

*Submitted by Carolyn Bargman, TB
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1. Diabetes and tuberculosis--a wake-up call. The lancet. Diabetes & endocrinology, ISSN: 2213-8595, Vol: 2, Issue: 9, Page: 677. **Publication Year:** 2014 [http://www.thelancet.com/journals/landia/article/PIIS2213-8587\(14\)70192-5/fulltext](http://www.thelancet.com/journals/landia/article/PIIS2213-8587(14)70192-5/fulltext)
2. Tuberculosis and diabetes mellitus: convergence of two epidemics. The Lancet. Infectious diseases, ISSN: 1474-4457, Vol: 9, Issue: 12, Page: 737-46. **Publication Year:** 2009 [http://www.thelancet.com/journals/laninf/article/PIIS1473-3099\(09\)70282-8/fulltext](http://www.thelancet.com/journals/laninf/article/PIIS1473-3099(09)70282-8/fulltext)
3. Viney, Kerri. (2016). Tuberculosis and type 2 diabetes: their relationship and its impact on the Pacific Islands region. https://www.researchgate.net/publication/309576558_Tuberculosis_and_type_2_diabetes_their_relationship_and_its_impact_on_the_Pacific_Islands_region?
4. Screening for Latent Tuberculosis Infection in AdultsUS Preventive Services Task Force Recommendation Statement. *JAMA*. 2016;316(9):962-969. doi:10.1001/jama.2016.11046. <https://www.uspreventiveservicestaskforce.org/Page/Document/UpdateSummaryFinal/latent-tuberculosis-infection-screening>

Connect through Health Care Coalitions

When our community experiences disasters or emergencies, the performance of health and medical systems can critically impact the outcomes for many people. From multiple penetrating injuries to protracted severe influenza, how we have prepared and how we coordinate and support one another contributes to the success of our response.

Health care coalitions (HCC) work together to understand our risks and threats, creating and exercising plans to respond, and most importantly, developing relationships across the health care community that leverage our strengths and resources when we need them most. Since Centers for Medicare and Medicaid Services (CMS) regulations recently required all health care facilities to participate in HCCs, Boulder and Broomfield Counties Health and Medical Response (HAMR) Partnership has welcomed representatives from many more disciplines. This is a great time to join, as we orient a cohort of new members. To get involved, email Mary.Pancheri@Centura.org or lwiddekind@bouldercounty.org, and we will add you to the distribution list. The group meets on the 4th Friday bimonthly; the location rotates between the largest member facilities.

*Submitted by Lisa Widdekind
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epiEye

A Look Outside Our Community
and Around the World

Flu is Widespread in Colorado and Boulder County

Flu activity in the United States has been steadily increasing since the beginning of November. As of January 13, 2018 there have been 2,055 influenza-related hospitalizations in Colorado. Influenza type A (H3N2) has been predominant among these hospitalizations, which also reflects national trends. Of the reported influenza-associated hospitalizations in Colorado, 33% were able to be subtyped. The results showed 491 specimens were H3N2; 105 were H1N1; and 14 were of Yamagata lineage. Five human infections with novel influenza A viruses were reported to CDC by five states, one being Colorado. The novel variant H1N2v was detected in that individual, who had exposure to swine at an agricultural event in the week before onset of illness.

Among those hospitalized for flu, over half have been 65 years or older. One pediatric death associated with Influenza has been reported. In Boulder County, there have been 127 people hospitalized due to flu so far this season. Influenza outbreaks in long-term care facilities are also on the rise; there have been 95 outbreaks in Colorado, 13 of which were in Boulder County.

Although influenza vaccine effectiveness can vary widely between seasons, influenza vaccination is currently the most effective method to prevent flu and its complications. It is not too late for health care providers and patients to get vaccinated. The CDC recommends an annual flu shot for anyone six months or older.

*Submitted by Lauren Marek
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Sources: CDPHE 2017-2018 Flu Report: <https://www.colorado.gov/pacific/cdphe/influenza-data>; CDC Flu: <https://www.cdc.gov/flu/news.htm>

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The hepatitis A vaccine is routinely recommended for children; however, most adults have not received the vaccine. CDC recommends that the following groups be vaccinated for hepatitis A:

- All children at age 1 year as a routine childhood immunization.
- Travelers to countries that have high risk of hepatitis A.
- Family members and caregivers of recent adoptees from counties where hepatitis A is common.
- Men who have sexual contact with other men.
- People who are homeless.
- People who use injection and non-injection illegal drugs.
- People with chronic liver disease, such as hepatitis B or hepatitis C.
- People who are treated with clotting-factor concentrates.

For more information on hepatitis A virus and for outbreak updates: <https://www.cdc.gov/hepatitis/hav/index.htm>

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