

MEMORANDUM

To: Rowan County Board of Health

From: Angela Worley, Communicable Disease Nurse Supervisor

Subject: Communicable Disease and Epidemiology Response Team Annual Report

Date: January 04, 2023

Epidemiology Response Team

Rowan County Health Department has an Epi team whose purpose is to identify, monitor, mitigate and respond to outbreaks or potential outbreaks of communicable disease. The response team meets to discuss events that have occurred and to identify ongoing communicable disease risks in the community and interventions to prevent the spread of disease. The Epi Team meets at least annually and any time there is notice of a communicable disease threat. The team consists of the following members: Health Director, Communicable Disease Nurse, Preparedness Coordinator, Nursing Supervisor for Immunizations and Communicable Disease, Environmental Health, Laboratory Technician, Director of Nursing, Clinic Coordinator, and Management Support.

The focus in 2022 shifted off COVID-19 some and back onto other emerging Communicable Diseases. We continue to have one nurse dedicated to the management of communicable diseases (includes TB, STD, and CD) full time. We have another nurse who has completed the Communicable Disease Course and training for use of the North Carolina Electronic Disease Surveillance System (NCEDSS) during 2022. This nurse has continued to be responsible for all COVID-19 investigation, and reporting of COVID-19 per NC DHHS guidelines. Ideally, this nurse will be able to work as a back-up to the Lead CD Nurse on a regular basis. We have not been fully staffed with nurses, making this impossible.

There is a need for additional staff to work on Communicable Disease follow-up in Rowan County to meet program requirements. We have additional, and temporary funding for use in Communicable Disease through the end of FY 2024. We have not been successful in filling nurse positions with this funding due to the temporary status of the positions. We have discussed hiring someone with Medical Office Assistant experience who could be trained to handle some investigations, and to enter data into NCEDSS. We have consulted with the North Carolina Communicable Disease Branch concerning using non-licensed personnel and are waiting for guidance.

Emerging and Current Communicable Diseases

The following are communicable diseases that we currently are investigating, contact tracing, reporting, and vaccinating against, which are part of current outbreaks or are posing threats to the health of the public.

- **EBOLA**

On September 20, 2022, an outbreak of Ebola Virus was declared in Uganda. On October 11, 2022, the US government began funneling travelers who had been in Uganda within 21 days of arrival to the US to five major US airports. These travelers are being screened for risk factors and signs/symptoms of Ebola virus on arrival. They will quarantine or isolate at the site of arrival if determined to be high risk for exposure to the virus. If they are screened and determined to be at low to moderate risk, the information is communicated to the public health jurisdiction at their destination.

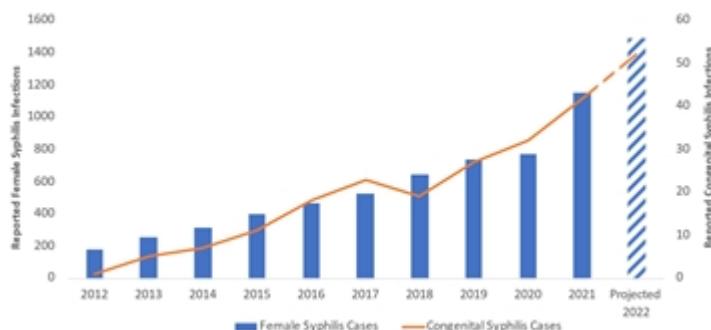
The Communicable Disease Branch in NC notifies local health departments (LHD) via email when there is a traveler to the county. The LHD can access traveler information through the North Carolina Electronic Disease Surveillance System (NCEDSS). The Communicable Disease Branch has staff that are conducting initial interviews, risk assessments, and the recommended monitoring. The LHD is notified once the monitoring is complete. The LHD is also notified if a traveler is high risk or if a traveler develops symptoms while under monitoring.

Rowan County Public Health has been notified of two travelers. Both travelers are students at a local college. We received notification of one in September and one at the end of December who is currently being monitored.

- **FEMALE and CONGENITAL SYPHILIS**

RCHD received a memo from the NC DHHS in December informing us that there has been significant rise in cases of syphilis in women of reproductive age and of babies at birth. Congenital syphilis is entirely preventable through early detection and appropriate treatment of the mother during pregnancy. North Carolina Public Health law requires healthcare providers screen all pregnant women for syphilis at the first prenatal visit, between 28-30 weeks gestation, and at delivery. Some findings in these cases: 92% of infected pregnant women were asymptomatic so screening only when a woman has symptoms resulted in missed infections. 43% of the mothers with syphilis at delivery had not received prenatal care; not screening at delivery caused more missed infections. Untreated syphilis can cause miscarriage, stillbirth, preterm delivery, and perinatal death in women. Congenital syphilis can result in hepatosplenomegaly, blindness, deafness, deformities of bone and teeth, or terrible complications later in life.

RCHD has not had any reports of congenital syphilis in 2022. The graph below shows the consistent increase in syphilis cases for females and babies at birth since 2012.



- **MPOX**

Monkeypox, now being called mpox, is caused by an orthopoxvirus. The World Health Organization (WHO) reported a multinational outbreak of monkeypox in Europe and North America May 2022. It was declared a public health emergency in the United States on August 4, 2022.

Mpox presents clinically in three stages; the incubation period is 1-2 weeks, a prodrome characterized by fever, flu-like symptoms, and lymphadenopathy, followed by the onset of a deep-seated vesicular or pustular rash. The rash begins on the face and spreads to other parts of the body. In this outbreak, the rash has presented on the perianal and genital areas. In the most severe cases, patients have been hospitalized due to severe pain from the rash with inability to urinate or defecate.

Anyone can get mpox even though many cases in the current outbreak have been in men having sex with men. The virus is spread through direct skin to skin contact with the rash, sores, or scabs. It can also spread through contact with contaminated objects and

exposure to respiratory droplets during face-to-face contact with an infected individual. A high percentage of individuals testing positive for mpox are HIV positive. Rowan County Health Department has investigated, completed contact tracing, and reported seven cases in residents of Rowan County. One case was reported in July, five cases in August, and one case in November. The RCHD has had the Jynneos vaccine available and have been vaccinating individuals through the Immunization Clinic. This vaccine is one of several orthopoxvirus vaccines available and the one recommended for use in mpox.

The table below is a summary of the current mpox situation across NC.

North Carolina Monkeypox Case Demographic Data	Number of Cases (%)
Total	697
Sex/Gender	
Male	669 (96)
Female	25 (4)
Other than sex assigned at birth	3 (<1)
Age	
0-17	3 (<1)
18-29	241 (35)
30-49	400 (57)
50+	53 (8)
Race	
American Indian/Alaskan Native	3 (<1)
Asian	4 (<1)
Black or African American	470 (67)
Native Hawaiian or Pacific Islander	0
White	173 (25)
Multi-racial	24 (3)
Other	21 (3)
Unknown	2 (<1)
Ethnicity	
Hispanic	83 (12)
Non-Hispanic	584 (84)
Unknown	30 (4)
Coinfection	
Known to be living with HIV	357 (51)

- **COVID-19**

In June 2022, as the state transitioned into a new phase of the COVID-19 pandemic, changes were made to meet the needs of the community and the local health departments. The guidance for reporting outbreaks and clusters was updated. The following changes were made:

- Shortened the time from 28 days to 14 days between the cases in a setting to report an outbreak or cluster
- Shortened the time from 28 days to 14 days since the last reported case in an outbreak or cluster to declare it over
- Criteria for an outbreak in a congregate living facility is now 2 or more laboratory confirmed cases in residents or staff within 14 days in the same facility. Congregate living facility includes long-term care facilities, correctional facilities, housing facilities for migrant farmers, and shelters.
- 14 days since the date of specimen collection of the most recent outbreak-associated case in a facility
- A cluster must have a minimum of five laboratory confirmed cases of COVID-19 within 14 days with evidence of epidemiologic linkage

The LHD continued to do investigation and reporting of all cases of children who were reported, all outbreaks and clusters, and all deaths. Most of the outbreaks of COVID-19 have been reported in long-term care facilities.

Late in 2022 the NC DHHS recommended no longer doing case investigation and contact tracing. The current recommendations focus on outreach for treatment and resources. The following are occurring with current COVID-19 cases in NC:

- Informational phone calls to provide isolation information and link to treatment and resources for certain groups. These are provided by staff of the NC DHHS.
- An automatic outreach goes out to all case patients by text and email. These messages include information about isolation, and resources for vaccines and treatment. These are also provided through the NC DHHS.
- Rowan County Health Department nurses are still receiving and reviewing the daily cases in the NCEDSS.
- Rowan County Health Department Nurses continue to investigate, do contact tracing, and report clusters and outbreaks in congregate living. This involves working closely with local long-term care facilities.
- There are nine outbreaks in long-term care facilities at present.

Rowan County is currently in high category for COVID-19 transmission. Weekly totals in first three weeks of December were 179, 179, and 184. The total for the last week of December was 253 and the numbers are climbing. Rowan County had a total of 130 deaths due to COVID-19 in 2022.

Communicable Disease Outbreaks in 2022

Throughout 2022 RCHD investigated and reported a total of six outbreaks in long-term care facilities. Two were gastrointestinal and four were respiratory illnesses.

Investigated one suspected outbreak of Carbapenem Resistant Enterobacteriaceae (CRE). A total of eleven contacts were investigated and tracing completed; only one was positive.

Rowan County had one flu death in 2022. This was in an adult patient.

Tuberculosis

The chart below provides confirmed TB case numbers for calendar years 2019 through 2022. We have had two active TB cases in 2022. Both completed TB treatment. One of the two cases required longer amount of treatment due to sputum cultures did not convert as expected.

Year	Cases	Number of contacts	Contacts evaluated	Candidate for treatment	Completed Treatment
2019	3	15	15	7	3
2020	1	7	2	0	0
2021	1	2	2	0	0
2022	2	11	11	8	4

HIV/STD:

A large percentage of the CD Nurse time is spent in STD follow up. The Health Department must obtain proof of treatment for any positive STD test and report these into the state system. In addition, if a person who has tested positive has not been treated or has not been treated per NC STD guidelines, the CD Nurse is responsible for assuring that they receive appropriate treatment.

The following numbers of STD cases are for 2021 and 2022. There has been a significant increase in chlamydia and syphilis cases in the past year.

<u>2021</u>	<u>/</u>	<u>2022</u>
Chlamydia – 745		Chlamydia- 911
Gonorrhea – 347		Gonorrhea- 376
Syphilis/all stages – 78		Syphilis/All stages- 106
HIV - 0		HIV- 0
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General Communicable Disease Report (number of cases in Rowan County):

Rowan County Health Department is responsible for reporting a total of 75 different communicable diseases. The table below is a summary of the most frequently reported diseases in 2022.

	2019 (Jan-Sept)	2020 (Jan-Sept)	2021	2022
Pertussis	7	7	0	0
Hepatitis A	3	2	72	6
Hepatitis B- Acute	3	1	3	7
Hepatitis B, Perinatal	-	-	-	1
Hepatitis C - Acute	8	3	4	1
Cryptosporidiosis	4	6	2	0
Cyclosporiasis	1	3	0	1
Rocky Mountain Spotted Fever	13	6	1	0
Lyme Disease	17	6	1	1
Shigellosis	10	7	2	4
Salmonellosis	24	27	15	25
Campylobacter Infection	41	20	22	16
Streptococcal infection Group A, Invasive	9	21	12	12
Legionellosis	3	1	4	2
Hemoph. influenza	13	2	3	5
E Coli-Shiga Toxin	0	2	2	6
Meningitis, Pneumococcal	-	-	1	4
Mumps	-	-	-	1
Chickenpox	-	-	1	0
Influenza Death	0	1	0	1
Monkeypox	-	-	-	7
CRE (Carbapenem Resistant Enterobacteriaceae)	-	-	-	9