Significance was determined using the Kruskal-Wallis test, followed by Dunn’s multiple comparison test if the Kruskal-Wallis test p-value was <0.05.

**Conclusion.** LTBI individuals had a higher BMI compared to persons with active TB on treatment and post-TB. Higher leptin levels were associated with higher BMI, but we found no association between leptin and TB status in our cohort.

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1392. Nontuberculous Mycobacteria Isolated from Wisconsin Residents, 2010-2018

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**Session:** P-80. Tuberculosis and other Mycobacterial Infections

**Background.** Wisconsin is one of a handful of states in which laboratory identification of nontuberculous mycobacteria (NTM) from clinical samples is reportable to public health. The aims of this study were to characterize the demographic features of Wisconsin adults with NTM, assess the relative abundance of NTM species recovered, and describe trends in NTM isolation over the study period.

**Methods.** We conducted a retrospective cohort study of Wisconsin residents 18 years of age and older from whom NTM isolates were recovered and reported to the Wisconsin Electronic Disease Surveillance System (WEDSS) between 2010 and 2018. Isolates of *M. gordonae* were excluded. For the analysis of NTM frequency, multiple reports from the same individual were enumerated as separate isolates when non-identical or collected from different sites. Because NTM were usually reported into WEDSS without clinical data, this study couldn’t discern the clinical significance of the isolates.

**Results.** A total of 9,032 NTM isolates from 7,722 adults were analyzed. The average annual number of reported NTM cases was 950 (21.7/100,000 adults) during 2011-2018. Table 1 shows the demographic characteristics of individuals with NTM isolates, stratified by specimen collection site and NTM species. *M. avium* complex (MAC) accounted for 75.7% of respiratory isolates. An important pathogenic NTM, *M. xenopi*, accounted for 8.9% of non-MAC respiratory isolates. As shown in Table 2, *M. chelonae*, a rapidly growing mycobacteria (RGM), was the most common species isolated from skin and soft tissue, head, ears, nose and throat, and eye specimens. MAC was the most common isolate from other non-respiratory sites.

1393. Loss to Follow-up Rate in the Treatment of Latent Tuberculosis by Region of Origin

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**Session:** P-80. Tuberculosis and other Mycobacterial Infections

**Background.** Adherence in the treatment of latent tuberculosis infection (LTBI) is closely related to reactivation and infection control in the population. However, there has been little research on which populations are at higher risk of loss to follow-up. The aim of this study is to investigate how the adherence of LTBI patients in the United States (US) differs by region of origin.

**Methods.** A retrospective, observational study was conducted from 2001 to 2020. LTBI patients were identified from the Cuyahoga County Tuberculosis Clinic in Cleveland, Ohio. Only patients who were informed of the diagnosis of LTBI were included. Patients were discharged from the Tuberculosis outpatient clinic upon completion of treatment or when the physician decided to discontinue treatment. We defined loss to follow-up as a case where LTBI was diagnosed but the patient was not formally discharged. Patients whose treatment was interrupted due to side effects were not considered loss to follow-up. Odds ratios were calculated using a multivariable regression model with patients from North America as the reference group.

**Results.** Of 4,018 LTBI patients, 1,171 (28.7%) were lost to follow-up, of which 950/2,314 (41.0%) were from North America. Compared with LTBI patients from North America, significantly lower loss to follow-up rates were observed for those from Middle East and North Africa 30/170 (17.7%) OR 0.32, 95% Confidence Interval (CI) 0.13-0.89, South Asia 60/692 (8.7%) OR 0.41, 95% CI 0.21-0.78, and Sub-Saharan Africa 69/526 (13.1%) OR 0.22, 95% CI 0.14-0.36.

### Table 1. Demographic characteristics of individuals with NTM isolates.

| Gender | Total | Respiratory | SST | MAC | RGM |
|--------|-------|-------------|-----|-----|-----|
|        | N=7,722 | N=3,637 | N=958 | N=1,360 | N=2,097 |
| Female | 4,082 (52.8%) | 3,704 (53.24%) | 158 (51.30%) | 3,211 (46.94%) | 548 (54.94%) |
| Male   | 3,611 (47.2%) | 2,923 (46.76%) | 326 (49.76%) | 2,957 (43.06%) | 465 (45.86%) |
| Not reported | 26 (0.38%) | 26 (0.40%) | - | 26 (0.40%) | 1 (0.10%) |
| Age (years) | Median (IQR) | 66 (55-76) | 67 (55-76) | 58 (45-71) | 67 (56-76) | 63 (49-73) |
| Race | | | | | | |
| White | 4,427 (57.33%) | 4,023 (53.7%) | 149 (48.38%) | 3,432 (49.78%) | 564 (56.65%) |
| Black | 636 (8.24%) | 576 (8.29) | 16 (5.19) | 532 (7.69) | 56 (5.52) |
| Asian | 269 (3.49) | 261 (37.75) | 10 (3.02) | 215 (3.62) | 27 (2.65) |
| Other | 75 (0.97) | 68 (0.99) | 9 (0.27) | 64 (0.98) | 7 (0.69) |
| Native American | 26 (0.34) | 26 (0.37) | 0 | 20 (0.34) | 6 (0.59) |
| Multiple | 14 (0.18) | 12 (0.17) | 2 (0.03) | 10 (0.17) | 3 (0.30) |
| Pacific Islander | 8 (0.10) | 7 (0.10) | 0 | 5 (0.08) | 3 (0.15) |
| Not reported | 2,267 (29.36) | 1,976 (26.37) | 136 (44.16) | 1,962 (27.98) | 269 (25.40) |

Categorization was based on the initially recovered sample when multiple specimens were obtained from a given individual. "Respiratory" samples included sputum, bronchoalveolar lavage, and tracheal aspirate specimens. IQR, interquartile range. RGM, rapidly growing mycobacteria (*M. chelonae* and the *M. abscessus* group, *M. chelonae-abscessus* group, and *M. fortuitum* groups). SST, skin and soft tissue.

### Table 2. Most common NTM species isolated from non-respiratory sites.

| Site | Total | Most frequent species |
|------|-------|-----------------------|
| SST | 336 (39.1) | M. chelonae |
| Other | 205 (23.8) | M. avium complex |
| Blood | 109 (12.7) | M. avium complex |
| Gastrointestinal | 65 (7.6) | M. avium complex |
| Pleural | 30 (3.5) | M. avium complex |
| Musculoskeletal | 24 (2.8) | M. chelonae |
| Gerontirinary | 16 (1.9) | M. avium complex |
| Eye | 13 (1.5) | M. chelonae |
| Lymph node | 13 (1.5) | M. chelonae |
| CNS | 6 (0.7) | M. chelonae |
| Bone marrow | 1 (0.1) | M. chelonae |

* Respiratory specimens: sputum, bronchoalveolar lavage, and tracheal aspirate specimens. CNS, central nervous system; SST, skin and soft tissue.

**Conclusion.** Consistent with prior studies, MAC is the predominant NTM isolated from respiratory specimens in Wisconsin. RGM are important minority respiratory pathogens, and predominate as skin and soft tissue NTMs. We highlight *M. xenopi* as an important pathogen in Wisconsin compared to other parts of the United States. In contrast to recent reports of increasing incidence of NTM disease, we found a stable annual incidence of NTM isolation between 2010 and 2018.

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Conclusion. The analysis showed that a high loss to follow-up rate was observed in the patient groups from North America, Europe and Central Asia, and Latin America & the Caribbean. LTBI patients from North America had a significantly higher loss to follow-up rate than those from Middle East and North Africa, South Asia, and Sub-Saharan Africa, respectively. Further research is needed to determine how to intervene in the poorly adherent patient population, such as LTBI patients from North America, Europe and Central Asia, and Latin America & the Caribbean.

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1394. Autochthonous Leprosy in Missouri
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Session: P-80. Tuberculosis and other Mycobacterial Infections

Background. Introduction: Leprosy (Hansen’s disease) is a chronic granulomatous infection of the skin/peripheral nerves caused by Mycobacterium leprae. Of 216 new cases reported in the US in 2019, 70% were in FL, LA, TX, HI, CA, GA and NY. Leprosy is considered a zoonosis in the southern US with the nine-banded armadillo as a reservoir. There have been no reported autochthonous leprosy cases in Missouri.

Methods. Case: 55 y/o previously healthy male noted a new rash on his arm 2 years ago. Over time it spread to his extremities/torso. Skin biopsy showed a granulomatous infiltrate, suspected granuloma annulare, but it progressed despite appropriate therapy. He noted progressive numbness of the affected areas of skin and several regional nerve distributions. In the weeks prior to his initial visit he noted facial swelling, eyelid and ear induration, worsening fatigue, diffuse arthralgia, and some vision changes. His travel history is limited to Canada, Colorado and a brief vacation to the Texas/Mexico border (no notable outdoor exposure during the latter trip; no travel outside the country). He lives in rural Missouri where he is exposed to armadillos. His dogs frequently kill them and often bring them into the yard, rolling around on/in the dead carcasses which he disposes of. He typically wears gloves when handling them and has never consumed them. On exam he had diffuse purplish-red nummular infiltrated anesthetic papules and plaques diffusely distributed over the trunk and extremities. Distinct left ulnar neuropathy was noted. He exhibited leonine facies and infiltration of the bilateral helices. Repeat biopsy showed a granulomatous infiltrate with abundant acid-fast bacilli. DNA sequencing confirmed M. leprae. He was preventatively treated with prednisone and methotrexate to minimize immune reaction, and two weeks later began a regimen of monthly rifampin, minocycline, and moxifloxacin with an anticipated duration of 24 months.