

TARGETING PHARMACISTS TO DEVELOP ANTIMICROBIAL STEWARDSHIP EXPERTISE IN LOW-RESOURCE RURAL SETTINGS

Richard Faator Dery, MBChB, Emily Perry, PharmD, Paul Carson, MD, FACP.
North Dakota State University, College of Health and Human Sciences, Fargo, North Dakota

INTRODUCTION

Antimicrobial resistance is considered one of the greatest threats to global health and jeopardizes the major gains made against infectious diseases in the last several decades. Antimicrobial stewardship (AS) is widely promoted as one of the major tools to curtail this threat. Starting in 2018, the North Dakota Department of Health and Human Services, in collaboration with North Dakota State University's Department of Public Health, provided pharmacists the opportunity to become certified in antimicrobial stewardship through the Society of Infectious Disease Pharmacists' (SIDP) program.

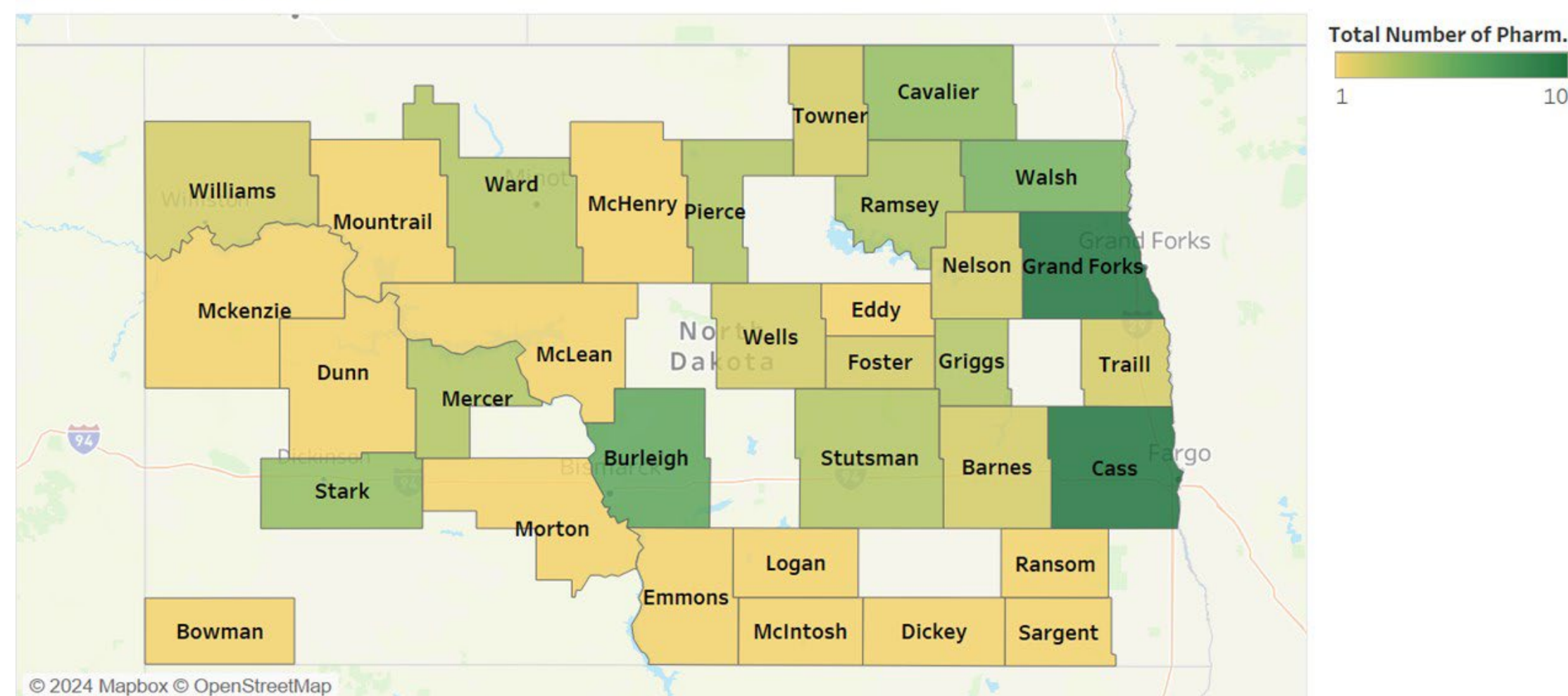
METHODOLOGY

This is a descriptive study of how antimicrobial stewardship expertise among pharmacists in low-resource rural settings in North Dakota was enhanced by providing scholarships for the SIDP AS training program from 2018-2022. Recruitment of pharmacists began in 2018 and has continued every year except in 2020 due to the COVID-19 pandemic. The application process required the pharmacist to fill out a questionnaire and return it within a specified time frame. Three assessors used a scoring system to assign points based on the applicant's answers. Applicants with the highest scores received a scholarship that covered the cost of the program.

RESULTS

DISTRIBUTION OF PHARMACISTS WITH COMPLETED PROJECTS IN NORTH DAKOTA

Work Locations of the Total Number of Pharmacists who completed the SIDP Training with project implementation.

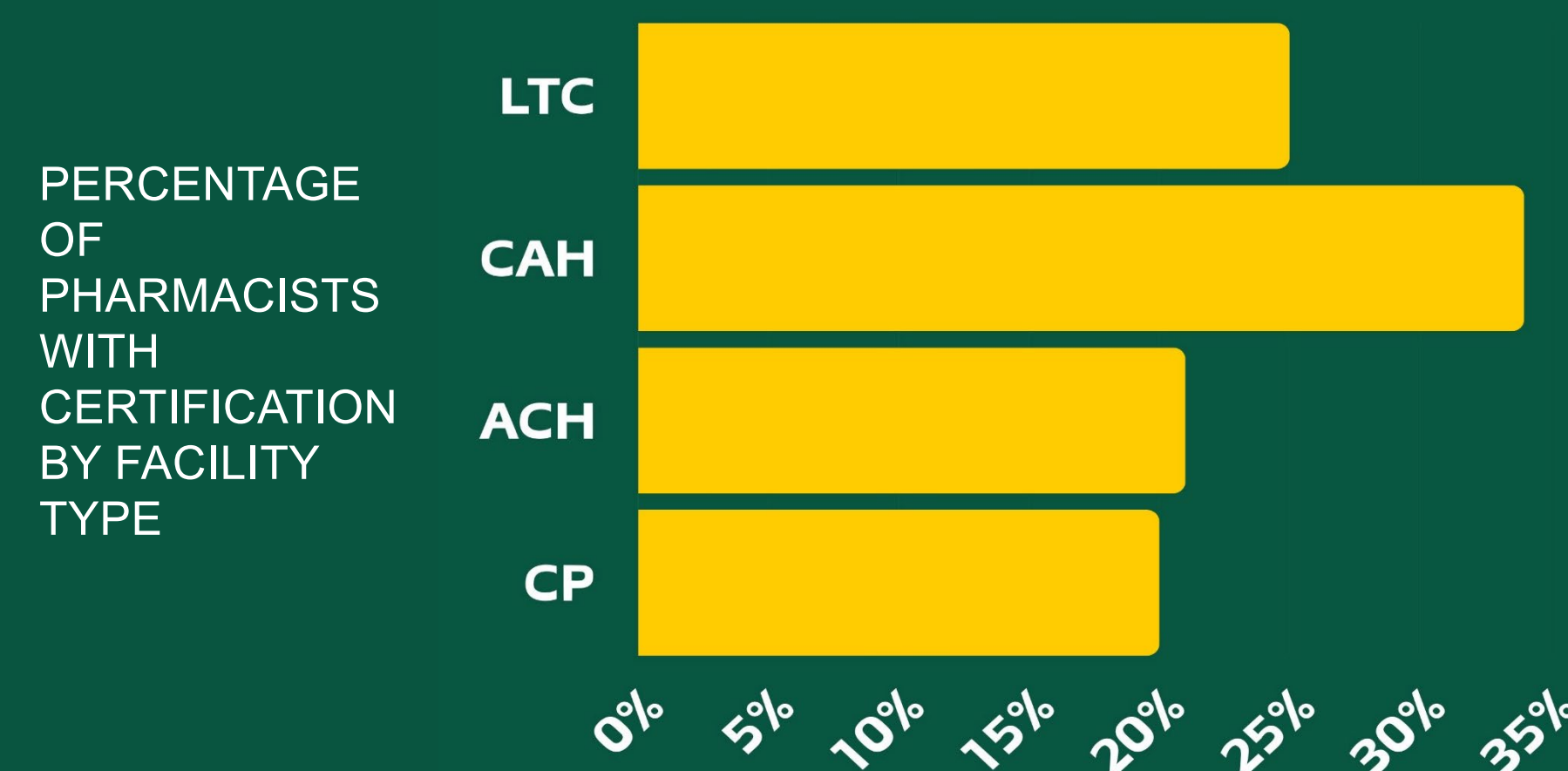


Map based on Longitude (generated) and Latitude (generated). Color shows sum of Total Number of Pharmacists. The marks are labeled by County. Details are shown for County.

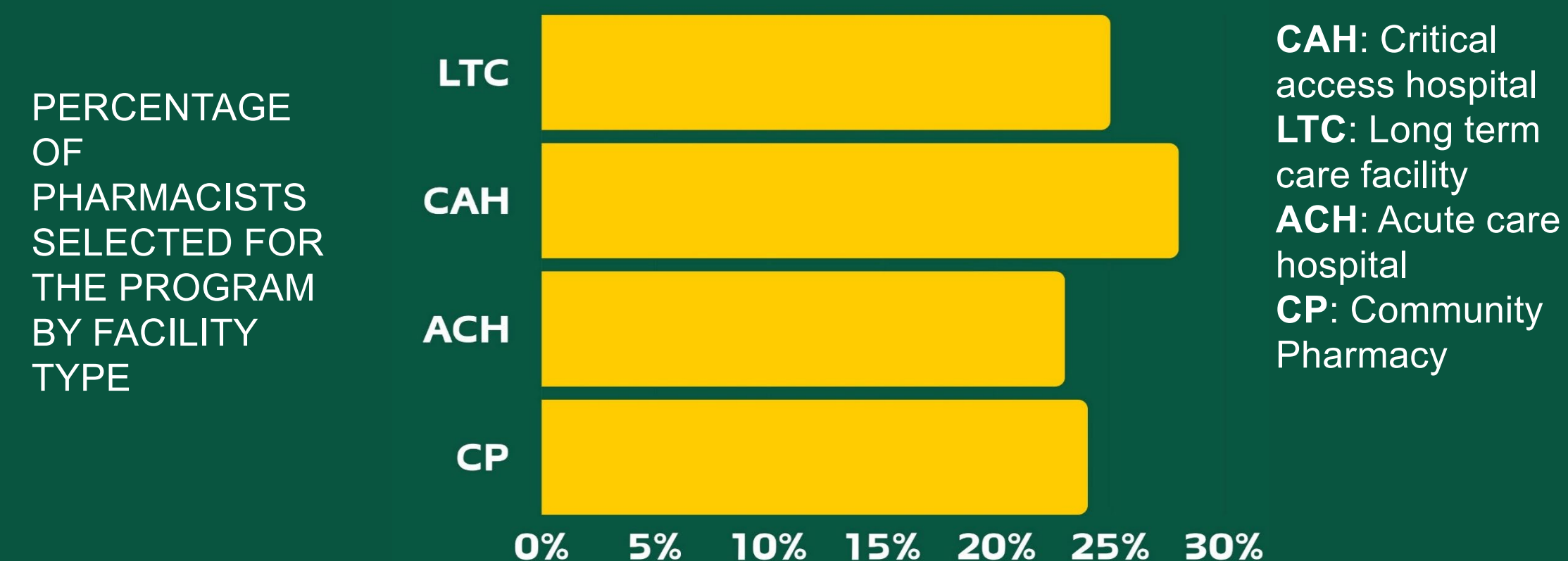


RESULTS

46 Pharmacists Achieved Certification in Antimicrobial Stewardship in North Dakota

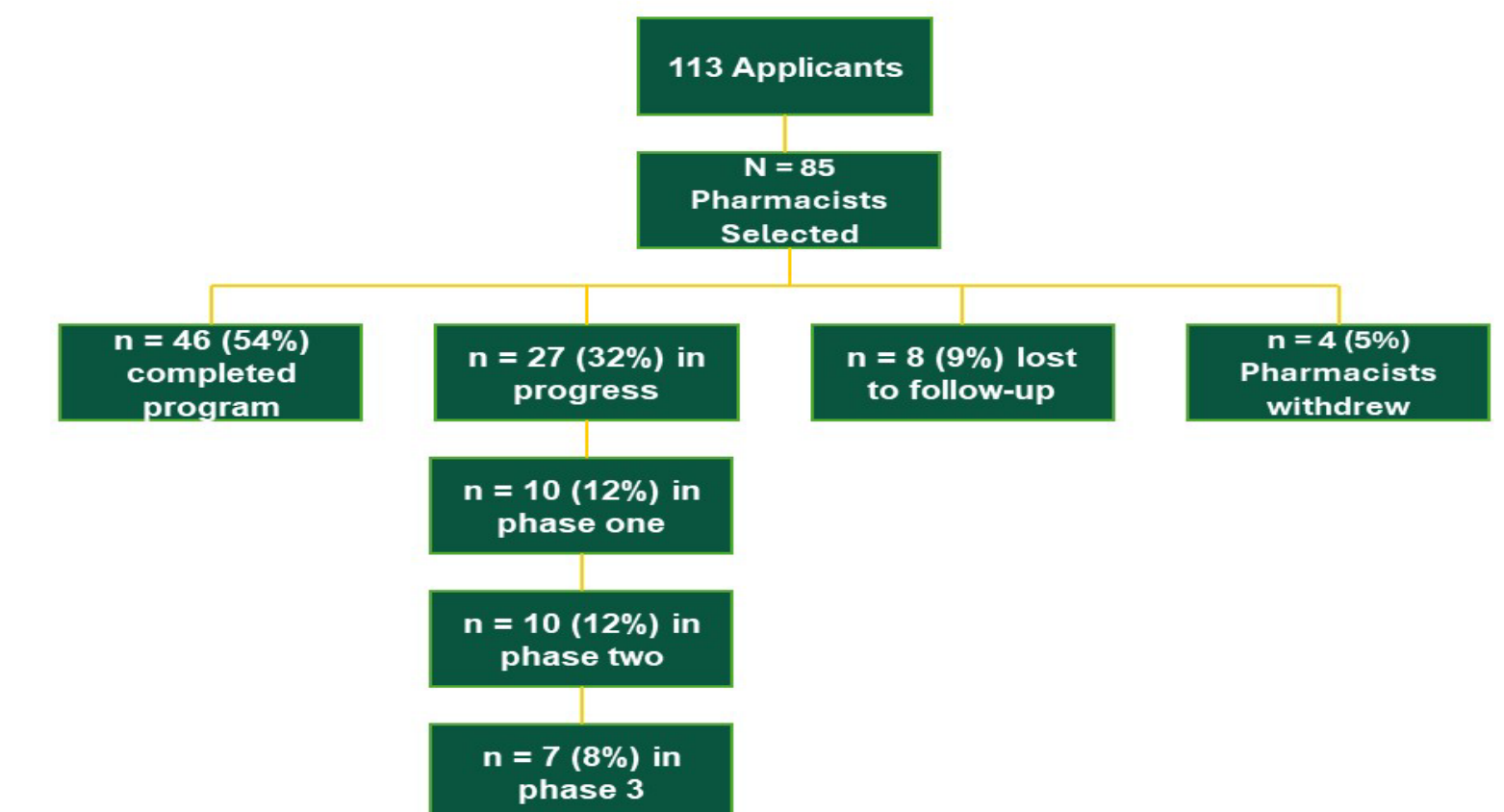


56 Diverse Healthcare Facilities Involved in the Antimicrobial Stewardship Projects



CAH: Critical access hospital
LTC: Long term care facility
ACH: Acute care hospital
CP: Community Pharmacy

RESULTS



BREAKDOWN OF COMPLETED PROJECTS

PROJECT TYPE	TOTAL	PERCENTAGE(%)
PROSPECTIVE AUDIT WITH INTERVENTION AND FEEDBACK	11	20
GUIDELINE, CLINICAL PATHWAY, ANTIMICROBIAL ORDER FORM	26	47
EDUCATION	9	16
ANTIBIOGRAM	1	2
PROJECT TYPE NOT SPECIFIED	8	15

Examples of interventions put into practice include the following:

- Created situation, background, assessment, and recommendation (SBAR) document for urinary tract infections.
- Created Clostridioides difficile guidelines in a 25-bed critical access hospital (CAH).
- Retrospective antibiotic reviews in a long-term care facility.
- Created an antibiogram in a CAH.
- Created guidelines for pneumonia, skin and soft tissue infections, COVID-19, and diabetic foot infections in a 35-bed acute care CAH.

CONCLUSION

The sponsored SIDP antimicrobial stewardship training carried out within North Dakota for pharmacists has contributed to building pharmacy expertise across the state especially in the low resource rural settings, where pharmacists or physicians with infectious disease specialty training is lacking. The projects implemented by the trained pharmacists which addressed the requirements of the CDC's seven core elements of antimicrobial stewardship have helped develop antimicrobial stewardship within low resource rural settings in North Dakota.