

GRANTEE HIGHLIGHT

# University of Colorado School of Medicine/ Children’s Hospital Colorado

## Colorado Antimicrobial Stewardship Endeavor (CASE)

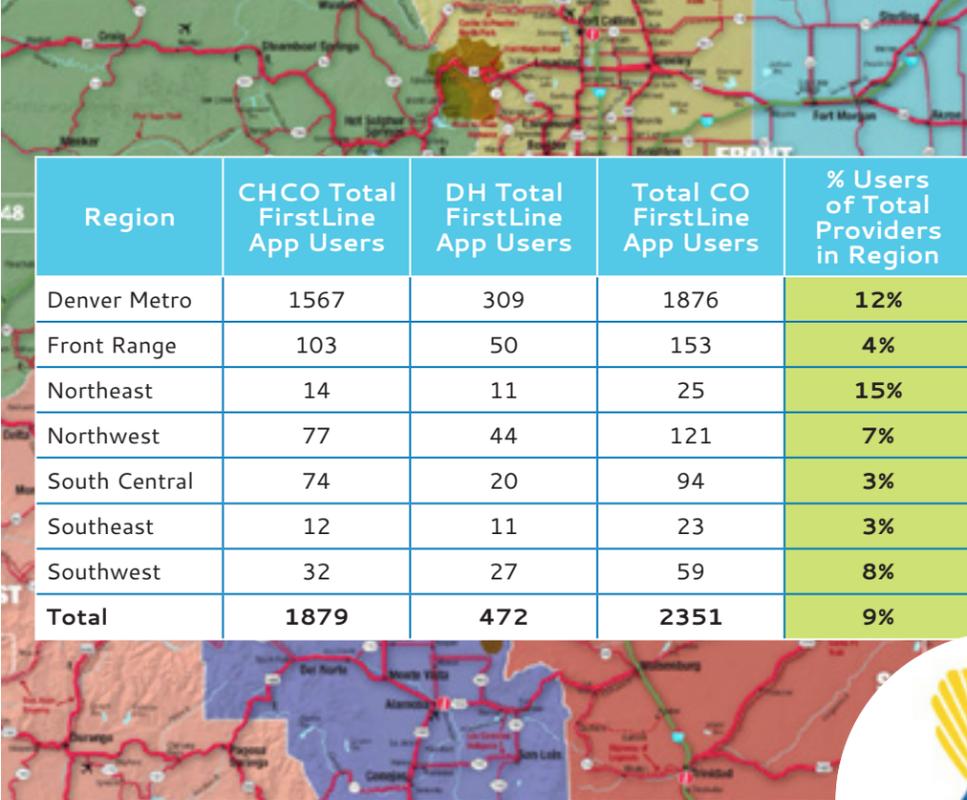


Antimicrobial resistance, fueled by antibiotic use and overuse, is a global epidemic that is recognized as an urgent health threat. To combat this threat, antimicrobial stewardship programs are now required by many US regulatory agencies. Colorado (CO), US, is made up of 7 regions and 64 counties; 23 counties are designated frontier, and 24 are rural (see figures). CO Hospital-based programs were surveyed and interviewed in conjunction with the Colorado Department of Health and Environment (CDPHE), and self-identified barriers and needs identified. Particularly in critical access hospitals, significant barriers included lack of guidance in terms of clinical care guidelines, understanding and implementation of stewardship tools and measurement, infection prevention protocols, and a desire to learn from peers. The target audience for this proposal is all Colorado hospitals and providers, with particular attention to critical access hospitals. This proposal’s overall goal is to fill this gap using local expertise from Denver Health (DH) and Children’s Hospital Colorado (CHCO), in collaboration with the CDPHE and our content experts, and deploy the information in an easily accessible mobile phone application, through a contract with FirstLine. The application launched in October of 2023, and is out-facing to all Colorado

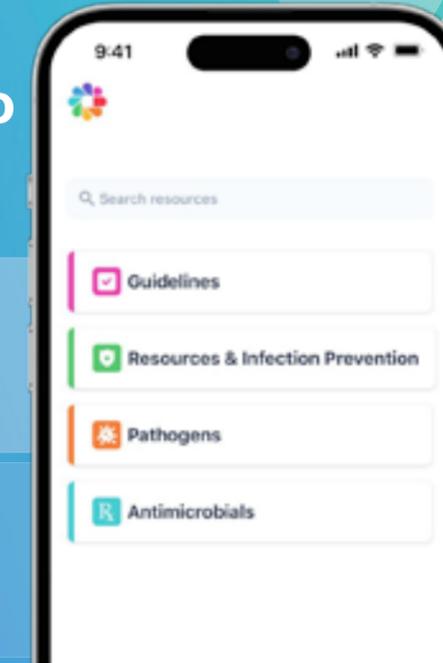
providers (and the world). We aim to collect data about app use, provider satisfaction with the app, and impact of app use on various antibiotic consumption metrics.

The FirstLine application launched in October of 2023, the CHCO application on October 10 and the DH version on October 30. Significant dissemination efforts accompanied the launch and are ongoing. Since launch, 2,351 users have downloaded the CHCO and DH versions of the application. The majority of the users are in the populated Denver metro area (1,876/2,351, 80%). In the less-populated regions, while percentage of the total CO users is 20% (475/2,351), it represents an encouraging percentage of providers in those rural and frontier areas (see table). The most used guideline on Children’s Colorado platform was acute otitis media, whereas community-acquired pneumonia was most used on Denver Health platform. For both, amoxicillin and Streptococcus pyogenes were the most viewed antibiotic and pathogen, respectively. For future analyses, a satisfaction survey will be deployed via app push notifications in March/April, and tools to assess guideline compliance will launch in April. Antibiotic use assessment is ongoing via an assessment tool built for users in FirstLine (linked to Redcap) and we will use hospital-specific Standardized Antimicrobial Administration Ratio (SAAR) information to assess changes in hospital antibiotic prescribing.

Global Bridges made this project possible. We were faced with knowing what our hospitals needed to improve antibiotic use, but not being able to provide it in a useful platform. Global Bridges filled that gap. In addition, the people at Global Bridges are understanding and supportive and understand the research process. Hearing about the other projects is also very enlightening and inspiring. We hope other collaborations will grow out of our cohort.



Keeping Colorado Healthy, One Antibiotic Choice at a Time.



“ We were faced with knowing what our hospitals needed to improve antibiotic use, but not being able to provide it in a useful platform. Global Bridges filled that gap. ”