State Secretary of Health
South Dakota Secretary of Health called on health leadership to improve antibiotic prescribing across the state.

Top-down Approach
Health system leaders were involved from the beginning, providing authority to affect changes throughout health systems and facilities.

Flagship Facilities
South Dakota’s three largest health systems have inpatient antibiotic stewardship programs in place in flagship facilities. Once the three systems have implemented this program system-wide, 47% of acute care hospitals in the entire state will be covered.

Collaborative
South Dakota’s program included input from the Indian Health Service, state medical association, a quality improvement organization, the hospital association, pharmacy association, state infection control council, hospitals, long-term care facilities, medical schools, and clinics.

South Dakota Improves Antibiotic Prescribing Practices
Antibiotic resistance is a significant public health threat. Each year in the United States, more than 2 million people become infected with bacteria that are resistant to antibiotics; 23,000 people die as a result.

In 2013, South Dakota created a statewide program to help ensure antibiotics remain effective and are used only when needed for the state’s 833,354 residents.

This effort grew out of the state’s aggressive response to a cluster of serious infections caused by carbapenem-resistant Enterobacteriaceae (CRE). As the South Dakota Department of Health worked with health care facilities to reduce CRE, it became clear that the state needed to tackle the underlying problem of drug-resistant organisms in general.

The health department surveyed hospitals and nursing homes and found only 21% had programs in place to assure good antibiotic stewardship. As a result, the Department of Health created a comprehensive statewide program to improve antibiotic prescribing practices. The program included training on drug resistance and stewardship. The program helped infection prevention nurses, physicians, and administrators implement prescribing improvement measures in facilities across the state.
What We Did

South Dakota involved clinical and administrative leadership from hospitals across the state from the beginning, forming multidisciplinary teams.

In addition, the state provided training on drug resistance and stewardship for infection prevention nurses, physicians and administrators from various healthcare facilities across the state. These included:

- “Bugs and Drugs” symposium featuring CDC subject matter experts. More than 300 health care providers attended. This session was taped and is being used as a training resource for facilities.
- Regular training sessions for providers.
- Special programming for South Dakota public television on proper use of antibiotics, featuring infectious disease physicians serving on the state’s workgroup.

What We Accomplished

South Dakota’s three largest health systems have since put antibiotic prescribing improvement programs in place. All three systems have multidisciplinary teams, all have at least one measure in place to assure correct prescribing of antibiotics, and all have put process measures in place to measure improvements. In addition, the state sponsors educational opportunities for providers and the general public.

- Avera Health – achieved 50% decrease of prescriptions for antibiotics linked to C. difficile infections. Created clinical guidelines for treatment of pneumonia.
- Sanford Health – created clinical guidelines and patient handouts for pneumonia, urinary tract infections, upper respiratory infections, C. difficile and MRSA for system-wide use. This facility is working to assure timely communication of lab results between physicians and labs.
- IHS – created system-wide multidisciplinary team to provide antibiotic guidelines and general microbiology information to individual service units.
- Regional Health – expanded longstanding stewardship efforts in hospitals to include long-term care facilities. Continues intense, real time oversight to assure appropriateness of prescribing and prevention of unnecessary prescribing of high-risk antibiotics by requiring physician or pharmacist approval before they can be given (preauthorization).

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