

The MARC Project

(Minimizing Antibiotic Resistance in Colorado)

The MARC Project is a four-year research project and pilot program federally funded by the Agency for Healthcare Research and Quality (AHRQ). The project began in 2001 and will conclude in 2005. Other project partners and supporters include the Centers for Disease Control and Prevention, the University of Colorado at Denver, the Colorado Department of Public Health and Environment, Colorado Medical Society, Colorado Foundation for Medical Care, the Latino Research and Policy Center, The University of California San Francisco, and the Colorado Clinical Guidelines Collaborative.

Purpose:

The purpose of this research study is to evaluate the impact of 2 educational strategies on antibiotic use.

Goal:

To reduce antibiotic prescribing rates for pharyngitis in children and bronchitis in adults.

Specific Aims:

Aim IA: Develop and implement community educational interventions via household mailings, office-based materials, and mass media

Aim IB: Measure and assess changes in antibiotic prescription rates for pharyngitis in children and bronchitis in adults, using commercial MCO and Medicaid administrative data from physician practices in and outside the intervention communities

Aim IIA: Conduct household surveys in and outside the intervention communities to measure the impact of SSCE and LSCE on knowledge, attitudes, behavior and self-efficacy

Aim IIB: Conduct a clinician judgment analysis in and outside the intervention community to measure the impact of SSCE and LSCE on clinician decision making and empowerment relating to episodes of care for pharyngitis and bronchitis

Aim IIIA: Conduct a parent and patient survey in and outside the intervention community to measure the impact of decreased antibiotic use on duration of illness and satisfaction with care, for pharyngitis and bronchitis

Aim IIIB: Using active surveillance data from the CDPHE, compare the incidence of invasive penicillin-resistant *S. pneumoniae* infections in and outside the intervention communities

Aim IIIC: Conduct a net-cost analysis of the different levels of community education

Target Audience:

The target audiences are primary care clinicians as well as patients and the public.

Research Activities

Year 1 of study: Small Scale Community Education (SSCE)

- Distribute office-based educational materials to physician offices.
- Distribute educational materials through household mailings.

Year 2 of study: Large Scale Community Education (LSCE)

- Deliver community based education through a mass media campaign.

Evaluation:

- Measure antibiotic prescription rates.
- Survey public knowledge, attitude and behavior.
- Survey patient satisfaction and illness outcomes.
- Assess physician decision making.
- Evaluate economic outcomes.
- Correlate changes in antibiotic prescription rates with changes in antibiotic-resistance patterns.

Collaborating Partners:

- Latino Research and Policy Center <http://www.itera.cudenver.edu/lrpc/Default.htm>
- Colorado Department of Public Health and Environment
<http://www.cdphe.state.co.us/cdphehom.asp>
- Colorado Medical Society <http://www.cms.org/>
- Colorado Clinical Guidelines Collaborative <http://coloradoguidelines.org/>
- University of Colorado at Denver <http://www.cudenver.edu/indexie.html>
- University of California San Francisco <http://www.ucsf.edu/>

Funding Sources:

- Agency for Healthcare Research and Quality <http://www.ahrp.gov/>
- Centers for Disease Control and Prevention <http://www.cdc.gov/>
- Centers for Medicare and Medicaid Services <http://cms.hhs.gov/>