The Problem. Vermont has one of the highest rates of asthma in the nation. About 1 in 8 adults (11%) and 1 in 12 children (8%) in Vermont have current asthma. The Rutland region, a rural part of the state that is home to about 60,000 of Vermont’s 626,000 residents, is particularly impacted by asthma. Compared to the state, rates of asthma in Rutland are similar, however, asthma-related emergency department use is 30% higher and asthma-related hospitalization is twice that of the state.

Collaborative action in Rutland, with support from the Vermont Asthma Program, has increased services and enhanced systems aiming to reduce the burden of asthma in the community. By 1) increasing awareness of the public health problem, 2) building partnerships and capacity to mobilize resources, and 3) implementing community-based initiatives (Figure 1), Rutland has established commitment and implemented tactics to address asthma. Over the past decade, stakeholders from the health care, public health, and education sectors in Rutland have worked to improve coordination across sectors, provider knowledge and education, patient education and behaviors, and public health programming to promote asthma management.

Increasing Awareness. Using Vermont’s public health surveillance system to monitor asthma, the Vermont Asthma Program recognized the high rate of asthma-related emergency department and hospital use in the Rutland region. This prompted the Program to reach out to local health care providers, Rutland Regional Medical Center (RRMC), and other stakeholders to increase awareness of the asthma burden in their community and the need for a coordinated public health response. The community recognized the need to work together to provide targeted resources to support individuals with asthma in better managing and controlling their disease.

Building Strategic Partnerships and Capacity. With funding support and technical assistance from the Vermont Asthma Program, a network of partners from RRMC, the local Visiting Nurse Association, the regional Environmental Protection Agency, and others convened to figure out how they could work together to support better asthma management and control in their community. Over time, the group established the Asthma Interventions in the Rutland Region (AiRR) Coalition and became a member of the Asthma Regional Council of New England. The AiRR Coalition identified the need for a three-pronged approach to address asthma in the community that involved:

1. Educating medical providers on guideline-based care to identify and treat asthma, and available community resources;
2. Supporting school nurses in asthma management within schools by improving linkages to the health care system; and
3. Implementing an in-home asthma education and trigger reduction intervention to support individuals with asthma and their families.

Rutland also enhanced capacity to address asthma by adding a certified asthma educator (AE-C) and tobacco treatment specialist to the Rutland Community Health Team. The Community Health Team’s AE-C provides asthma education and care coordination for individuals with asthma, and community outreach and education to support public health initiatives. The AE-C has played a key role in facilitating communication and community-clinical linkages to support individuals with asthma and their families.
Implementing Community-Based Initiatives. Community led initiatives have enhanced the systems, services, and supports for individuals with asthma. The list below highlights a selection of initiatives that have aided community-clinical linkages and health systems improvements to promote asthma management and control in Rutland.

- Facilitating Coordination of Asthma Care. The AiRR Coalition established shared consent to facilitate asthma-related information sharing and care coordination across settings. The Community Health Team navigated federal privacy rules to develop a legally approved authorization form for the release of medical information between schools, health care providers, and the Community Health Team. The shared consent form has been instrumental to facilitating communication and care coordination (e.g., student asthma action plan) between school nurses, health providers, parents, and child care providers.

- Supporting Asthma Patients in the Hospital Setting. RRMC plays an important role in treating asthma exacerbations, linking patients to primary and specialty care providers, and providing asthma education to prevent future exacerbations. RRMC’s Asthma Clinic supports adults with asthma by providing comprehensive asthma education delivered by AE-Cs to increase patient understanding and management of asthma.

With funding from the Vermont Asthma Program, RRMC integrated a protocol within their systems of care to deliver asthma education to adult patients using the emergency department due to asthma symptoms. Using a provider script known as the MAPLE Plan and developed by the Vermont Asthma Program (based on the FLARE Plan), adults seen in the emergency department for asthma receive a followup call from an AE-C who provides standardized guideline-based asthma education to increase understanding of asthma and self-management practices, and promote followup with a primary care provider.

- Expanding Access to Asthma Services through an In-Home Pediatric Asthma Intervention. With guidance and support from AiRR, the Vermont Asthma Program, and the New England Asthma Innovation Collaborative, RRMC and the Community Health Team implemented Rutland’s In-Home Pediatric Asthma Program. Modeled on other evidence-based asthma home visiting programs, this program provides asthma self-management education and environmental assessment and supplies for trigger management to high-risk pediatric asthma patients. Children with asthma and their families are referred to the program through multiple sources, including RRMC, providers, school nurses and the state Medicaid Program. Participants receive three home visits by an AE-C who provides individualized asthma education and a community health worker who conducts the environmental assessment. A followup call is conducted at six months to check on the status of the patient. Additionally, a report of the patient’s participation in the program is provided to the patient’s primary care provider.

The Program has been successful in its reach and engagement. In the past three years the Program has served about 90 families, most of whom completed all three home visits. Preliminary data indicate the Program has led to improvements in asthma self-management, environmental trigger reduction, and a reduction in use of the emergency department among the individuals served by the program.

Success in Addressing Asthma in Rutland. Efforts to prioritize asthma as a public health problem in Rutland and develop a coordinated response to improve asthma management and control within the community have yielded success. Through collaborative efforts, Rutland has:

- Increased awareness of the asthma burden among community partners and gained recognition of asthma as a public health priority.
- Built partnerships and capacity to address asthma across public health and health care systems.
- Implemented community-based initiatives to improve asthma management within the health system, within schools, and among individuals with asthma.