

# Challenges of allergic diseases in the Qassim Region of Saudi Arabia: A call for comprehensive prevention and control strategies

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Allergic diseases have become a significant concern for public health globally and the Qassim region in Saudi Arabia is no exception.<sup>[1]</sup> With a population, exceeding 1.3 million, the Qassim is known for its climate agricultural activities and rapid urbanization all of which play a role in the complexity of allergic disease prevalence.<sup>[2]</sup> Allergic rhinitis asthma and atopic dermatitis are among the most prevalent allergic disorders influencing individuals across all age groups leading to considerable morbidity and a decline in quality of life.<sup>[3]</sup> The rising prevalence of these conditions highlights the importance of understanding the challenges faced in Qassim and establishing effective prevention and control measures. Allergies often manifest as reactions on the skin triggered by certain foods, insect stings, or medications causing issues like eczema or hives. The second type is Anaphylaxis which is a severe allergic reaction that can be life threatening and requires immediate medical assistance.<sup>[4]</sup> These chronic allergies can affect quality of life in ways such as disrupting sleep causing fatigue and reducing productivity. Moreover, managing allergies can place a burden on families and health-care systems due to expenses and lost productivity.<sup>[5]</sup> In addition, respiratory allergies, to pollen and dust mites, can worsen asthma and other respiratory issues.<sup>[6]</sup> In the Qassim region similar to many areas, common allergies include (1) Pollen allergies prevalent during spring when plants bloom, (2) dust mite allergies often worsened by indoor settings, (3) food allergies, such as reactions to nuts, dairy, or seafood, (4) insect allergies caused by stings from bees or wasps, and (5) allergies to medications reactions to medications, especially in the elderly. Statistics show that 25% of children and young adults have pollen allergies leading to symptoms like sneezing and itchy eyes with a peak during spring. In addition, 18% of adults aged 30–50 are affected by dust mite allergies causing coughing and nasal congestion although this rate has remained steady over the past year. Moreover, 12% of children under 12 show signs of food allergies such as hives and swelling with an upward trend. Similarly, 7% of individuals across all age groups experience insect allergies resulting in anaphylaxis and rashes while 10% of older adults aged 50 and above have

drug allergies that manifest as skin reactions and nausea with a noteworthy increase.

## Challenges

The increase in allergic diseases in Qassim can be attributed to several factors. Firstly, environmental changes such as higher pollution levels, desert dust storms, and fluctuations in climate have been associated with worsening allergy symptoms and respiratory issues.<sup>[7]</sup> The regions farming practices such as pesticide and fertilizer use may also worsen allergic reactions among the population.<sup>[8]</sup> Moreover, urbanization in Qassim has brought about lifestyle changes, such as reduced physical activity and greater exposure to allergens in homes. Common indoor allergens, as dust mites, molds, and pet dander, are widespread in settings making it more challenging to manage allergic diseases.<sup>[8]</sup> In addition, cultural factors, including dietary preferences and reliance on traditional medicine, could impede prompt diagnosis and treatment of allergic conditions.<sup>[8]</sup> Access to healthcare and awareness about allergies present obstacles. There is frequently an absence of allergy services and a limited understanding among the public about how to manage allergic conditions. Numerous patients go undiagnosed or receive incorrect diagnoses resulting in subpar treatment and worsening symptoms.<sup>[9]</sup>

## Prevention Measure

Tackling the challenges posed by allergic diseases in the Qassim region necessitates a well contrived and an organized strategy. To enhance prevention and management the following key approaches are crucial.

## Public awareness campaigns

It is essential to enhance understanding of allergies their causes and ways to manage them. By implementing programs in schools, workplaces, and community centers, we can equip people with the knowledge to identify symptoms and pursue suitable medical assistance.<sup>[7]</sup>

## Strengthening healthcare infrastructure

Setting up clinics that focus on allergies and educating health-care professionals on how to identify and treat allergic conditions will improve patient support. Bringing allergists into primary care environments can help streamline referrals and provide holistic care.<sup>[4]</sup>

## Environmental management

To combat the impact of pollution on allergies, policies targeting air quality and farming methods can help address the environmental factors that contribute to allergic diseases.<sup>[9]</sup> By enforcing rules on pesticide usage and encouraging sustainable farming practices, we can lessen exposure to harmful substances.<sup>[9]</sup>

## Research and surveillance

Further investigation into the prevalence of allergies in Qassim is crucial for tracking patterns and pinpointing potential risk factors. Creating a local allergy database might enhance data gathering and guide public health initiatives.<sup>[10]</sup>

## Collaboration with local communities

Working closely with communities to create interventions that respect their cultural values will make prevention efforts more impactful. Teaming up with community leaders can help ensure that health messages resonate well with people and motivate them to get involved in health initiatives.<sup>[10]</sup>

The increasing occurrence of allergies in the Qassim region of Saudi Arabia presents challenges that require immediate attention. To address this issue effectively, we can reduce the impact of allergic diseases through the implementation of prevention and control measures. These measures should include raising awareness improving health-care facilities managing the environment conducting research and fostering community involvement. It is crucial for health-care

professionals, policymakers, and researchers to work together to create a healthier environment for the people in Qassim and enhance their overall well-being.

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