

- Diabetes is rapidly increasing in Bangladesh
- Healthy diets can control the risk of this disease
- Effectively fighting diabetes requires collaboration between several key sectors, most notably food and agriculture as well as health

Healthy rice for healthy lives

As in many South Asian countries, diabetes is an important and growing health problem in Bangladesh. To a large degree, this development is driven by people's unhealthy diets. The food and agriculture sectors, in collaboration with the health sector, have thus an important role to play in preventing diabetes. Promoting rice varieties that are less likely to cause this disease could be a promising strategy.

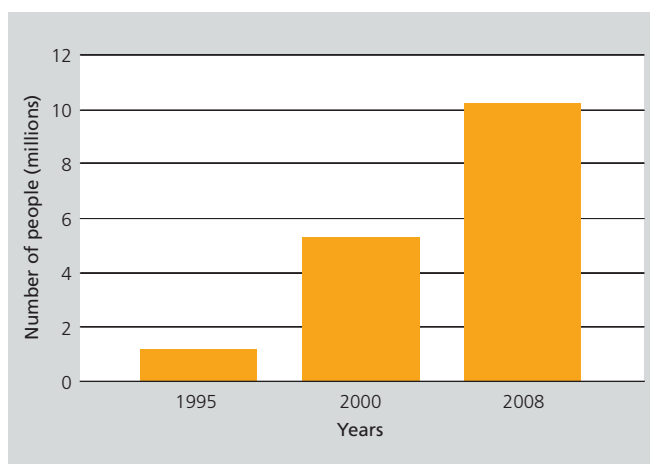
Diabetes – A growing concern

Diabetes is becoming a serious health concern in Bangladesh. Between 2000 and 2008, the proportion of people suffering from diabetes increased from 4% to 7%. Considering the country's average population growth of around 2%, the increase is even more marked in absolute terms: from 5.3 to 10.2 million people.

This development is representative of the entire region. Estimates for the South Asian peninsula predict that 77 million people will be living with diabetes in 2025. This would represent more than a doubling since 2001, when 33 million people were suffering from this disease.

Fighting diabetes effectively

Diabetes is a condition in which the body does not produce enough, or properly respond to insulin. This hormone is crucial as it enables cells to absorb glucose to then turn it into energy. If a person suffers from diabetes, glucose accumulates in the blood, which leads to various health problems such as nerve damage, increased fluid loss and blurred vision. In extreme cases, diabetes can even lead to death.



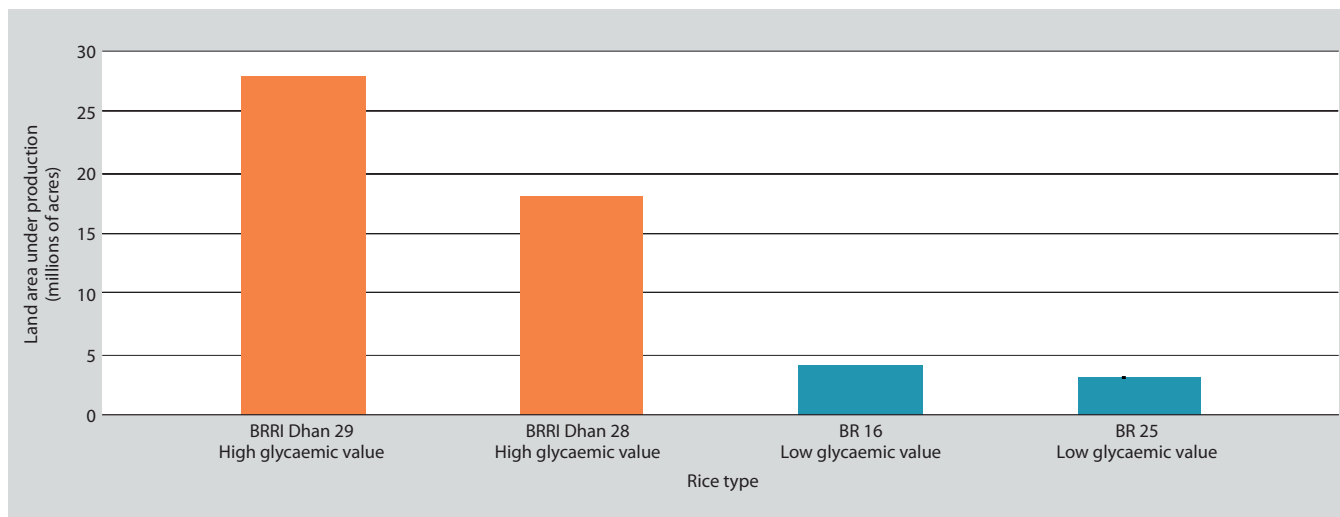
Diabetes is rapidly increasing in Bangladesh

Source: Bangladesh Institute of Research and Rehabilitation in Diabetes, Endocrine and Metabolic Disorders.

Several factors have been identified that increase the chances of suffering from diabetes, including stress, obesity and insufficient physical exercise. Controlling diabetes effectively means controlling sugar within the body. Healthy diets thus play an important role in lowering the risk of diabetes.

Even in countries with monotonous diets, such as Bangladesh where rice forms the bulk of people's diets, diabetes can be controlled effectively. In fact, not the type but the quality of carbohydrates in a specific food determines the extent to which blood-sugar levels increase. This means that different varieties of the same staple will be more or less likely to cause diabetes.

This finding is confirmed by research funded through the National Food Policy Capacity Strengthening Programme. Comparing ten rice varieties, the analysis shows that the effect of rice on



Production is dominated by rice varieties that induce diabetes
 Source: Bangladesh Rice Research Institute.

blood-sugar levels differs widely between varieties. In other words, the higher the glycaemic value of a specific variety, the higher its probability to cause diabetes.

From quantity to quality

Following the introduction and promotion of high-yielding rice varieties, Bangladesh has recently witnessed a remarkable increase in the production of rice. While this development is overall encouraging, production is dominated by varieties that lead to sharp rises in blood-sugar levels. In 2007, 66% of total cultivable land was dedicated to the production of the two rice varieties with the highest glycaemic values. Varieties that do not lead to high rises in blood-sugar levels, on the other hand, were limited to only 11% of total cultivable land.

Having achieved self-sufficiency in rice production is undoubtedly a great success for Bangladesh. After meeting its ambitious targets in rice production, the rising prevalence of diabetes calls for increased attention on the qualitative characteristics of rice, especially as regards its impact on blood-sugar levels.

Apart from actively promoting the cultivation of healthy rice, consumers need to be sensitized on the negative implications of certain rice varieties. Thus, effectively fighting diabetes requires collaboration between several key sectors, most notably food and agriculture as well as health.

Research to increase the productivity of rice with low glycaemic values needs to be supported and extension services need to provide farmers, including small farmers, with the support required to facilitate the adoption of these rice varieties and the associated technologies. In order to orientate consumers towards healthier rice varieties, information campaigns need to sensitize people about the possible implications of rice consumption. These campaigns should involve field health and nutrition staff; media outlets such as television, press, and radio; posters and flyers; and communication at the community level through instruments such as folkloristic drama and songs, depending on what is most suitable for the specific target audience.

Given that diabetes is a concern across the South Asian peninsula, countries should finally share their experiences with their neighbors. International workshops and seminars might be one way of fostering cross-national collaboration, as could be exchange programmes and cross-border initiatives.