Monitoring diabetes treatment in New York City

Mandatory reporting of glycosylated haemoglobin (HbA_{1c}) results has been introduced in New York City in an effort to monitor the effectiveness of treatment for diabetes mellitus. From this week, medical laboratories in the city that can transmit data electronically are required to provide results of the HbA_{1c} test to the New York City Department of Health and Mental Hygiene. The health department will create a registry with dates and results of HbA_{1c} tests, and patients' addresses and dates of birth. Treating physicians will receive feedback on all their patients' results and when repeat tests are due.

A pilot scheme will also be introduced in the South Bronx area of New York City. Patients who do not opt out will receive their HbA_{1c} results, together with information on lifestyle measures needed to reduce their levels. Treating physicians will receive a quarterly summary of their patients stratified by glycaemic control, alerts if HbA_{1c} is particularly high, and reminders of best practice recommendations. The registry information will be available only to the patient tested and the treating clinician. This pilot scheme is based on the Vermont Diabetes Information System, a registry-based decision support and reminder system for patients and their primary care physicians. The feasibility of implementing the system has been demonstrated, but whether there is any difference in clinical outcome in the Vermont study is as yet unknown. Promising US and Swedish research suggests that registry-based monitoring is associated with mean decreases in HbA_{1c} and blood pressure, and increases in prescription of lipid-lowering drugs.

By introducing mandatory reporting of HbA_{1c} levels, the authorities of New York City have become the first in the USA to require data on routine testing for a major chronic non-infectious disease in order to study the quality and effectiveness of treatment. This focus on improving glucose control is welcome in a city where one in eight adults is thought to have diabetes but only 10% of diabetic patients know their HbA_{1c} level. HbA_{1c} control is associated with improved clinical outcomes but overall, in the USA, only 7% of patients with diabetes have controlled their HbA_{1c}, blood pressure, and cholesterol to target levels.

Diabetes is the only major disease that is becoming more common in New York City, in part because of the ageing population, a lifestyle that promotes obesity, a growing Hispanic community that has a particularly high prevalence of diabetes, and more poor people than the national average. It is difficult to avoid the widely broadcast messages that junk food is good food and the biggest meals are the best. Vending machines in schools sell sweetened drinks for profits, while physical education programmes are insufficient. More than four in ten children in the city are now defined as obese or overweight.

Prevention of diabetes is clearly not working. Once diagnosed, without symptoms or pain it is easy to ignore the fact of diabetes until the largely preventable complications develop. Many people have to choose between eating and buying diabetes medication or test strips. Each test strip costs about 75 cents, which adds up to about US$500 a year. For those with insurance, many insurers cover the cost of only one strip a day, but twice daily testing is often advised to obtain better control. Insurers may pay for treating the complications of diabetes, such as amputations or dialysis or even surgery to reduce stomach size, but will often not pay for preventive measures, such as seeing a podiatrist (chiropodist) or nutritionist, or will not reimburse the provider in full for educational classes. Chronic care is not as profitable as acute care or procedure-based care. So, for example, the profit margin for bypass surgery is far greater than for nutrition counselling to prevent the bypass.

In the absence of an infrastructure to provide comprehensive care for diabetes in the USA, this registry-based initiative can offer only a small step forwards for treatment of patients with diabetes. But it is a positive step, aided by a powerful series in *The New York Times* raising public awareness of this neglected disease. By the time the registry is assessed, there may be evidence that public-health campaigns to prevent diabetes are beginning to work. Without prevention and without restructuring the business of care provision for chronic disease in the USA, diabetes and its complications will continue to escalate.

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For **study design and subject recruitment details of Vermont Diabetes Information System** see *Clinical Trials* 2004; **1:** 532–44 DOI:10.1191/1740774504cn051oa

For ***The New York Times* diabetes coverage** see http://www.nytimes.com