

## Europe's visible epidemic

More and more children are becoming overweight across WHO's European Region. Gary Humphreys and Catherine Fiankan-Bokonga report on the multisectoral approach France is taking to reverse the epidemic.

For Graham Whittington, the starting point was getting the children to slow down. "I just wanted them to take time over the first course, give the food time to settle," he says. As the parent of two children attending the primary school in the tiny village of Rochefort-en-Valdaine in southern France, Whittington found himself in charge of the school canteen in the autumn of 2007.

"I started serving them things like grated beetroot or carrot, French staples that require chewing, but are also delicious and very good for you." Whittington wanted to change the way things were done at the school – to educate children about the importance of local produce and encourage them to respect food traditions – and one of the things that drove him was a change he was witnessing in the children. They were getting fatter.

Whittington, a British social entrepreneur and newcomer to this part of France, was, in fact, witnessing a tiny part of Europe's obesity epidemic that had started gaining momentum in the 1980s. The epidemic is so visible and has such alarming health consequences that it has become a major cause for concern.

Last month, health ministers from across the World Health Organization's (WHO) European Region met in Vienna

to discuss strategies for tackling obesity, which is one of the most important contributors to the two main causes of premature death in the 53-country region: cardiovascular disease and cancer.

National surveys in many of these countries reveal a picture of excessive fat intake, and low fruit and vegetable consumption resulting in an increasing level of obesity, which shortens people's life expectancy and reduces their quality of life.

In France alone – a country famous for its strong food traditions – the number of overweight children tripled between 1980 and 2000. "In the 1980s, 5% of French children were overweight, and that rose to 16% in 2000," says Professeur Serge Hercberg, nutritional epidemiologist and President of the National Nutrition and Health Programme (Programme National Nutrition Santé or PNNS).

"By 2007, the rate of increase was slowing down, with just 17.5% prevalence reported that year. What has happened since, no-one knows. "There are no official figures available," Hercberg says, "and nothing will be published before 2014."

The hope is, however, that the various initiatives taken by France in the past decade or so will bear fruit. Central

among those initiatives is the national nutrition and health programme PNNS launched in 2001, a key aspect of which is changing children's experience of food in schools.

This includes making school canteen food healthier, dropping the morning food break and, notably, banning vending machines that sell junk food and soft drinks while increasing the availability of water fountains and the distribution of free fruit.

Both programmes encourage regional involvement, and the PNNS has a charter of commitment for "active PNNS cities" that undertake to implement projects that are consistent with programme objectives. Aquitaine, in south-western France, was one of the first regions to sign up and has had its own Programme for Nutrition, Prevention and Health for Children and Teenagers in place since 2004.

Dr H el ene Thibault, a paediatrician from the Children's Hospital in Bordeaux, coordinates prevention and management of childhood obesity programmes in the Aquitaine region. "We train school doctors and nurses to screen for children who are overweight and refer them to their general practitioners," Thibault says. "For children who are overweight, we propose a care plan that they and their families can follow – one that takes a multidisciplinary approach involving dieticians, psychologists and physical activity professionals. The children's progress is monitored over a two-year period."

The approach seems to have delivered at least some results. A study Thibault and her colleagues published in the journal *Acta Paediatrica* found that the prevalence of overweight among children in Bordeaux fell by 41% between 2004, when the children were between five and six years old, and 2011, although this decrease was not significant among children from families with low socioeconomic status.

Caroline Carri re, one of the programme's project managers, is a firm believer in improving food in schools, educating children about food and what makes a balanced diet. "Several active PNNS cities in our region have hired



Graham Whittington

Children eat healthy food for lunch in the canteen of the primary school in the village of Rochefort-en-Valdaine in southern France

qualified nutritionists to advise them on canteen menus and food preparation to ensure that the meals provided by nursery and primary schools reflect ministry of health guidance," she says.

But what happens when the children get out of school? After all, as a WHO report published in June, *Marketing of foods high in fat, salt and sugar to children: update 2012–2013* noted, children are surrounded by advertisements urging them to consume food that is high in fat, sugar and salt and these have been devastatingly effective in changing children's eating habits. And the advertisements are not just on television.

As Dr João Breda, who manages the Nutrition, Physical Activity and Obesity Programme Division at the WHO Regional Office for Europe, points out: "The food industry is increasingly marketing its products through social media and smart phone apps to target children."

For the time being, however, television remains the dominant source of advertising not least because "a large majority of children and adolescents" watch television on average for more than two hours a day, the WHO report notes. Here too, France seems to be setting the tone, having introduced a six-point charter with broadcasters and advertisers in 2009 to support the dissemination of television and radio programmes on nutrition and physical activity, with programming specifically aimed at young audiences that emphasizes good eating habits and lifestyle.

Other notable French initiatives include a tax on soft drinks of 7 cents a litre, which has so far reduced sales by 4%, and, since 2010, a national obesity prevention plan that reinforces the PNNS by improving screening for obesity, focusing on improving physical activity and reaching out to the poor and disadvantaged, who are more likely to be overweight or obese.

France is not alone in introducing initiatives to combat child overweight and obesity: for example several other European countries have introduced so-called fat taxes on unhealthy foods. But France is perhaps unique in its multisectoral response to the child obesity problem – involving the health, education, social services, transport and urban planning sectors – in a national strategy that hinges on the engagement of local communities.

If it turns out that all these efforts have been repaid by better numbers, France will be one of very few countries in Europe to have made progress on the child obesity front, because, according to Breda, many other countries are probably in trouble.

Exactly how much trouble is hard to say because of the lack of comparable data. Only a quarter of the 53 countries in the WHO European Region had validated their national prevalence data on overweight or obesity in children in 2006, according to the European Ministerial Conference on Counteracting Obesity.

The lack of standardization in the analysis of body measurement data only compounds the problem, making it difficult to monitor trends over time as well as to make international comparisons or to evaluate the effectiveness of interventions.

It was to fill the data gaps on child obesity that the WHO Regional Office for Europe launched its WHO European Childhood Obesity Surveillance Initiative (COSI) in 2007.

The international standard for measuring overweight and obesity is body mass index (BMI), which is a person's weight in kilograms divided by the square of their height in metres (kg/m<sup>2</sup>). Overweight for adults is defined as a BMI equal to or more than 25, and obesity as a BMI equal to or more than 30, but in recognition that these were not suitable for children, WHO issued growth standards for school-age children and adolescents in 2007. These standards define children's weight in terms of a distribution of values from 0 to 100 percentiles. The definition for overweight is the 85th percentile and above, while for obesity is it the 97th percentile and above.

Based on the WHO growth standards, COSI's first round of data collection, which took place during the school year 2007/2008, indicated that, on average, 24% of children aged six to nine years were overweight or obese.

The second round took place during the school year 2010/2011 and indicated an increase in prevalence to around 33% in the overall sample, although some Member States have shown significant progress. The third data collection round is ongoing and will cover the school year 2012/2013, but according to Breda, the preliminary indications suggest that the overall picture is not encouraging.

For one thing there is no indication as yet of an overall levelling out in the epidemic, as has sometimes been reported, while in some countries the increase in obesity prevalence appears to have accelerated, such as in the Czech Republic, Latvia, Malta, Norway and Slovenia between 2008 and 2010. "On the whole, the situation in the WHO European Region has become a little worse," Breda says.

"According to our calculations, if you compare 2010 data to 2008, you see an increase in the average prevalence of overweight (including obesity) from roughly one in four children to one in three." ■



Children help themselves to local products in the village of Rochefort-en-Valdaine in southern France