Recent study was that nearly 10% of infants already had evidence of previous natural exposure to measles at 9 months of age. These data suggest that the timing of measles immunisation may need further evaluation in some countries to ensure optimum protection of infants from measles.

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Cholera and street food

Sir—In their comprehensive review, José Sanchez and David Taylor (June 21, p 1825)1 justifiably remind us of the presence of cholera in the world, especially in Latin American countries. However, they do not emphasise enough the role of food in cholera transmission and do not include food-safety programmes in their strategies for the prevention and control of cholera.

Consumption of contaminated foods has indeed been associated with cholera outbreaks and illness worldwide, revealing the importance of food in cholera transmission. Food is the most important vehicle of cholera transmission in industrialised countries, since almost all outbreaks have been of foodborne origin.2 Food can be contaminated with Vibrio cholerae in its habitat or during preparation and handling; V cholerae survives and multiplies well in various moist foods and persists in them even while refrigerated. Raw and undercooked seafoods have been the most common implicated vehicles in foodborne cholera outbreaks worldwide, and cooked rice, cooked cereals, vegetables, and other foods have also been associated with cholera outbreaks. Street-vended foods and drinks have a long tradition worldwide, including in Latin America.3 Studies of local modes and vehicles of cholera transmission in Latin American countries have revealed a significant association between the consumption of street-vended food or beverages (especially those prepared with ice) and cholera.4 In Singapore, a cholera outbreak was reported after consumption of street-vended squid.5 Thus, street-vended foods and beverages might be the most important vehicles for cholera transmission in big urban areas with access to safe water and proper sewage disposal.

Studies in some countries have shown the enormous economic and social impact of the street-vended food industry.4 In Singapore, one million street-food vendors have been estimated in Malaysia and the numbers for Peru are even larger.6 In Malaysia, the annual sale of street foods is around $2.2 billion and in Kuala Lumpur, about a quarter of all household food expenditures is on street-vended foods.7 Because of the extent of this industry, we need to investigate its role in the transmission of cholera and other diarrhoeal diseases.

Food-safety programmes should always be included in national strategies for the prevention and control of cholera. Efforts should concentrate on providing basic advice on food safety, warnings on the risks of cholera transmission associated with specific foods and food habits, and emphasising which eating practices are safest. Special guidelines for street-vended food should be developed and included in the general strategies for the prevention and control of cholera. Attempts to suppress such foods are in most cases unrealistic and, if imposed, could have a detrimental impact on the local population.8 Rather, efforts should concentrate on appropriate regulation of this food industry; implementing food-safety programmes for street-food vendors; assurance that street-food vendors have access to proper potable water and appropriate waste disposal; and advice for consumers about low-risk or high-risk foods. Education programmes on food safety directed at consumers, food handlers, and street-vendors, and the regulation of street-vended foods, are essential steps to halt secondary and sustained transmission of cholera.

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3 Street-foods. FAO, 1989: 345–47.

Dead-in-bed syndrome in diabetes mellitus

Sir—Ragnar Hanas (Aug 16, p 492) suggests that the dead-in-bed syndrome among patients with insulin-dependent diabetes mellitus (IDDM) may be due to an accidental overdose of short-acting insulin before retiring to bed.

Though Hanas’ entry was published as a research letter, it did not, in fact, include any research findings to support this hypothesis. Hanas seems to suggest that the mistake occurs in patients on four times daily insulin regimens (short-acting insulin before meals and intermediate-acting insulin at bedtime), but only a few cases reported as dead in bed on such regimens. For example, in the original report of the syndrome by Tattersall and Gill, four (18%) of the 22 cases were on four daily injections of insulin, 16 were on twice daily insulin, and two on once daily insulin. Furthermore, nocturnal hypoglycaemia is common in insulin-dependent diabetic patients whereas the dead-in-bed syndrome is rare.3,4

Hypoglycaemia could be important in the pathogenesis of sudden nocturnal death in IDDM,4,6 and accidental insulin overdose may contribute in some cases but certainly not all. It is noteworthy that patients with this syndrome are found in undisturbed beds with no signs of sweating, struggle, or seizure.3 This finding implies that other mechanisms alongside nocturnal hypoglycaemia are involved in the pathogenesis of sudden death in these cases—for example, accompanying cardiac arrhythmias.3,4

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Author’s reply

Sir—As I pointed out in my letter, the mistake of taking the wrong type of insulin can happen both with multiple injections (taking the wrong pen) and with syringes for two to three doses daily (taking the wrong bottle or perhaps the same bottle twice). Taking the wrong type of insulin is a common mistake, whereas dead-in-bed syndrome is rare.