What is the most common chronic disease of childhood? According to the US Surgeon General’s figures it is dental caries. Epidemiological evidence implicates Streptococcus mutans as a cause of caries and various lactobacilli and Actinomyces species are also suspects. A study in Columbus, Ohio of 30 children aged 2–8 years with caries and also suspects. A study in Columbus, Ohio of Lactobacillus and Actinomyces species are shown one bacterium (S. sanguinis) to be associated with positive dental health and eight other organisms (Actinomyces gerencseriae, a new Bifidobacterium, S. mutans, Veillonella, S salivarius, S. constellatus, S. parasanguinis, and Lactobacillus fermentum) to be associated with caries. It is hoped that defining the bacteriology of caries will contribute to prevention and treatment.

In Olmsted County, which includes Rochester, Minnesota a total of 35 people received a diagnosis of narcolepsy between 1960 and 1989 (Sleep 2002;25:197–202). Twenty-two (15 male) were under 20 years old, most of them (10 males, 7 females) between the ages of 10 and 19 years. In the second decade of life the incidence was 4.56 per 100 000 males and 3.13 per 100 000 females. The total prevalence in early 1985 was 56.3 per 100 000. Over a third of cases did not have cataplexy.

Some children with splenic injury may have their spleens removed unnecessarily. Between January 1994 and January 1999 in the Northern and Yorkshire NHS region (Annals of the Royal College of Surgeons of England 2002;84:106–8) 11 children aged 6.6–16.8 years underwent splenectomy after blunt abdominal trauma. All made a full recovery and all were given Pneumovax and penicillin prophylaxis but none was managed according to 1993 (revised 1997) guidelines of the UK Advanced Paediatric Life Support group which recommended laparotomy only when evidence of continuing intraabdominal bleeding persisted after appropriate fluid resuscitation. At the two regional teaching hospitals over the same period at least 16 children with splenic injury were managed by paediatric surgeons and none underwent splenectomy. How many children were managed conservatively in district general hospitals is not known. A report from Pittsburgh, Pennsylvania (Journal of Pediatric Surgery 2002;37:294) contains the same message.

Children who live at home but are dependent on medical and nursing technology may present special problems in child rearing. A study of 16 parents (of 14 children) and 15 home care nurses in Milwaukee (Journal for Specialists in Pediatric Nursing 2002;7:7–15) has illustrated some of the difficulties. The children were aged 3–7 years, all had tracheostomies, 11 also had a gastrostomy, and two were ventilator-dependent. As well as restrictions imposed on the children and their families by necessary equipment and technological needs there was scope for dispute between parents and home care nurses about aspects of child rearing. The parents expected the nurses to become involved in child rearing but regarded some aspects, such as moral education, as their own prerogative. Strategies are needed to improve co-operation between parents and home care nurses in the home care of children with technological needs.

Automated fluorescent genotyping (AFG) may show subtelomeric rearrangements when conventional cytogenetic analysis is normal. In Paris (Journal of Medical Genetics 2002;39:266–70) 150 children with moderate or severe syndromic mental retardation (IQ<50 plus positive family history, abnormal growth, abnormal behaviour, seizure, or facial dysmorphism) and normal chromosome banding analysis had AFG on blood samples. Subtelomeric deletions or duplications were found in 14 children and two others had uniparental disomy. These researchers suggest that systematic examination of subtelomeric regions should be considered for all children with unexplained syndromic mental retardation.

Retrospective studies based on parental interview probably give serious underestimates of rates of child injury. In southern Brazil (Injury Prevention 2002;8:79–82) the parents of 620 children (median age 34 months) were interviewed, using a standardised questionnaire, about injuries to their children in the preceding 30 days and then used diaries to record injuries over the next 30 days. The number of injuries reported retrospectively was 145 and prospectively 715. One or more injuries were reported for 21% vs 48% of the children. Parents reported only one injury for each injury event in the retrospective period but an average of 2.4 injuries per injury event in the prospective period.

Diethylstilboestrol (DES) taken in pregnancy may affect the health not only of the daughters but also of the grandsons of the treated women. DES was used between 1938 and 1975 for the treatment of pregnant women at increased risk of abortion. It has been known for 30 years that women whose mothers took DES in pregnancy are at greatly increased risk of vaginal or cervical clear-cell adenocarcinoma. These women also have a high risk of fertility problems. Now a Dutch study of 16284 women with fertility problems (Lancet 2002;359:1102–7; see also commentary, ibid:1081–2) and their 1934 sons has shown an increased risk of hypospadias in boys whose mothers were exposed in utero to DES. The rate was 4.205 (mothers exposed) versus 8.8729 (mothers not exposed).

In Washington state (Diabetes Care 2002;25:505–11) blood was taken in 1990–93 from 4505 schoolchildren aged 12–18 years for testing for pancreatic islet cell antibodies and defined autoantibodies (d-aab) to human glutamic acid decarboxylase (GAD), insulin, and the tyrosine phosphate homologue IA2/ICA512. Twelve children had positive tests for multiple d-aab. Eight years later six of these twelve and no others had developed type 1 diabetes. Repeat testing showed that new d-aab rarely appear at this age and once present the antibodies persist.

The authors of two recent papers (New England Journal of Medicine 2002;346:1041–53) have concluded that the screening of infants for neuroblastoma by measuring catecholamines in urine does not benefit the children. In Quebec almost 440 000 infants were screened over a period of 5 years. Mortality from neuroblastoma did not change significantly after the introduction of screening and during the screening period it did not differ significantly between Quebec and several unscreened populations in Canada and the USA. In Germany over 2.5 million children were screened at age 1 year. Mortality from neuroblastoma was essentially the same in screened and unscreened (control) populations. Screening detected tumours which would never have presented clinically (about 7 for every 100 000 children screened. Fifty-five children with negative screening tests later developed the disease and 14 of these died.