in transition have important knowledge to share but seek training to present that knowledge.[12]

Our theme issue will seek partially to redress these issues. In particular, we are seeking papers that shed light on the impact of transition on population health, the experience of healthcare reform, the implementation of evidence based health care, and the reconfiguration of medical training programmes. We welcome original papers from any countries that are undergoing transition in central, eastern, and southeastern Europe, and also personal views and experiences of practitioners, especially those in primary care and public health.

We hope that this issue will encourage those who have much to say but who so far have felt unable to say it, and that it will serve as a forum for the exchange of information among the countries in the region and our readers. Please submit your papers via http://submit.bmj.com by 31 January 2005.

Martin McKee *professor of European public health*

European Centre on Health of Societies in Transition, London School of Hygiene and Tropical Medicine, London WC1E 7H (martin.mckee@lshtm.ac.uk)

Kristina Fister *Roger Robinson editorial registrar, BMJ*

Competing interests: None declared.

1 McKee M, Zatonski W. Public health in eastern Europe and the former Soviet Union. In: Beaglehole R, ed. *Global public health.* Oxford: Oxford University Press, 2003:87-104.
2 Nolte E, Shkolnikov V, McKee M. Changing mortality patterns in East and West Germany and Poland. I: Long term trends (1960-1997). *J Epidemiol Community Health* 2000;54:890-8.
3 McMichael AJ, McKee M, Shkolnikov V, Valkonen V. Mortality trends and setbacks: global convergence or divergence? *Lancet* 2004;363:1155-9.
4 World Health Organization. *Health for All database.* Copenhagen: WHO, 2004.
5 Zatonski WA, McMichael AJ, Powles JW. Ecological study of reasons for sharp decline in mortality from ischaemic heart disease in Poland since 1991. *BMJ* 1998;316:1047-51.
6 Connor SL, Ojeda LS, Sexton G, Weidner G, Connor WE. Diets lower in folic acid and carotenoids are associated with the coronary disease epidemic in central and eastern Europe. *J Am Diet Assoc* 2004;104:1793-9.
7 Coker RJ, Atun RA, McKee M. Health care system frailties and public health control of communicable disease on the European Union's new eastern border. *Lancet* 2004;363:1389-92.
8 Gilmore A, McKee M. Moving east: how the transnational tobacco companies gained entry to the emerging markets of the former Soviet Union. Part I: Establishing cigarette imports. *Tobacco Control* 2004;13:143-50.
9 Field MG, Twigg JL, eds. *Russia's torn safety nets: health and social welfare during the transition.* New York: Palgrave Macmillan, 2000.
10 Mossialos E, Dixon A, Figueras J, Kutzin J. *Funding health care: options for Europe.* Buckingham: Open University Press, 2002.
11 Svab I, Pavlic DR, Radic S, Vainiomaki P. General practice east of Eden: an overview of general practice in eastern Europe. *Croat Med J* 2004;45:537-42.
12 Marusic A, Marusic M. Small medical journals and the 10/90 problem: educatione ad excellentiam. *CMAJ* 2004;170:627-8.

Tourette's syndrome in children

Tic disorders are common and misunderstood

Tic disorders affect 4-18% of children at some stage of their development.[1] At one end of the spectrum are children with brief episodes of single tics, whereas at the other are children with chronic multiple tics, including Tourette's syndrome. Tics are abrupt and recurrent motor or vocal actions. Although involuntary, they may be preceded by a sensory urge, are sometimes suppressed for prolonged periods, or can even be triggered by external perceptions. They are sudden and purposeless. They can be divided into simple tics such as blinking, shrugging of the shoulders, grunting, and clearing one's throat, and complex tics such as licking, jumping, or touching objects. Tourette's syndrome is the most severe form, with multiple motor and vocal tics lasting for a year or more.[2]

The best known symptom of Tourette's syndrome, coprolalia (a complex vocal tic with involuntary swearing), occurs in less than 15%.[3] This unusual symptom has contributed to the view that Tourette's requires extraordinary treatment. Most tic disorders including Tourette's need little medical input other than help with diagnosis and information, but an unusual or severe movement disorder requires specialist advice, and impairing emotional and behavioural problems need referral to mental health services.

The onset of Tourette's syndrome occurs around the age of 6-7 years, and, as with other neurodevelopmental disorders, it occurs more commonly in boys. Tourette's syndrome was thought to be rare, but recent school based studies have indicated a prevalence of 1-3%, if a broad definition of chronic motor and vocal tics is used.[4] However, the syndrome itself might helpfully be thought of as a spectrum,[1] particularly in terms of the impairment experienced by patients. Those with purely chronic tics usually have good adaptation. The presence of the more unusual Tourette's phenomena such as coprophenomena (obscene sounds or gestures) or echophenomena (repeating sounds or gestures) are rarer and may lead to distress and misunderstanding. A third group, those with psychopathology, are likely to need active and multimodal interventions.[5]

Parents and children need to understand that, although all these symptoms relate to the underlying brain disorder, interventions may be extremely simple—for example, allowing the child to have a short "tic break" in a long school lesson. The neurochemistry, neuroanatomy, and genetics of Tourette's syndrome have been the subject of speculation and research; dopaminergic pathways in the frontal and subcortical regions of the brain are involved, and a strong genetic basis exists.[6] Recent studies have identified a group of children who suddenly develop tics and obsessive compulsive disorder associated with B-haemolytic streptococcal sore throat infection.[7] However, despite streptococcal autoantibodies being a potential risk factor for developing Tourette's syndrome[8] there is no evidence currently that these children should be investigated or treated differently from other children with Tourette's syndrome, other than by looking for and treating active streptococcal infection.[9]

Explanation and reassurance may be all that is needed for children who have mild tics.[6] Educating the teachers and all professionals who come into contact with the child is important for reducing psychological distress. Children may be teased and bullied in the

BMJ 2004;329:1356–7

classroom or reprimanded by the teacher for something over which they have no control. This can lead to low self esteem and emotional difficulties. If the child has tics that are uncomfortable and cause psychological and social distress, then medication may be considered. No drug has predictable and potent efficacy in all children with tics—most studies show a reduction of only about 30% in the severity of tics.[10]

Surprisingly few good quality, randomised controlled trials in children are available. Double blind trials have shown tic severity and frequency are reduced using dopamine antagonists, such as haloperidol, pimozide, sulpiride, and the α_2 adrenergic receptor agonist, clonidine.[6 10 11] Placebo-controlled studies of risperidone in Tourette's syndrome have shown that it is efficacious and has fewer side effects than the older dopamine antagonists.[12]

Other problems such as obsessive compulsive disorder and attention deficit hyperactivity disorder are often present (50-70% of children with Tourette's). The combination can be difficult to treat, and specialist advice from a child psychiatrist may be needed.

Parents often feel helpless and at a loss to know what to do when their children have tics. Helping parents adjust to the diagnosis and manage the negative reaction of peers and public can be empowering to families. A good understanding of the symptoms and their fluctuations is essential. For example, children seem able to suppress tics for periods of time such as at school, followed by a disruptive rebound on returning home.[6]

Most individuals with tics lead highly functional lives, and the tics themselves usually wane in teenage years. Parents should be encouraged to seek support for themselves from various organisations such as the Tourette Syndrome Association (enquiries@tsa.org.uk). With a good understanding of tics and related problems, including acceptance from teachers and education of peers, most children with tics do not need regular medical follow up.

Uttom Chowdhury *consultant child and adolescent psychiatrist*

Dunstable Health Centre, Dunstable, Bedfordshire LU6 3SU (uttom.chowdhury@blct.nhs.uk)

Isobel Heyman *consultant child and adolescent psychiatrist*

Tourette Syndrome Clinic, Great Ormond Street Hospital for Children, London WC1N 3JH (i.heyman@iop.kcl.ac.uk)

Competing interests: None declared.

1 Robertson MM. Diagnosing Tourette syndrome. Is it a common disorder? *J Psychosom Res* 2003;55:3-6.
2 American Psychiatric Association. *Diagnostic and statistical manual of mental disorders* (DSM-IV). 4th ed. Washington DC: American Psychiatric Association, 1994.
3 Freeman RD, Fast DK, Burd L, Kerbeshian J, Robertson MM, Sandor P. An international perspective on Tourette syndrome: selected findings from 3500 individuals in 22 countries. *Dev Med Child Neurol* 2000;42:436-47.
4 Hornsey H, Banerjee S, Zeitlin H, Robertson M. The prevalence of Tourette syndrome in 13-14-year-olds in mainstream schools. *J Child Psychol Psychiatry* 2001;42:1035-9.
5 Sukhodolsky DG, Scahill L, Zhang H, Peterson BS, King RA, Lombroso PJ, et al. Disruptive behavior in children with Tourette's syndrome: association with ADHD comorbidity, tic severity, and functional impairment. *J Am Acad Child Adolesc Psychiatry* 2003;42:98-105.
6 Leckman JF. Tourette's syndrome. *Lancet* 2002;360:1577-86.
7 Swedo SE, Leonard HL, Garvey M, Mittleman BB, Allen AJ, Perlmutter S, et al. Pediatric autoimmune neuropsychiatric disorders associated with streptococcal infections: clinical description of the first 50 cases *Am J Psychiatry* 1998;155:264-71
8 Church AJ, Dale RC, Lees AJ, Giovannoni G, Robertson MM. Tourette's syndrome: a cross sectional study to examine the PANDAS hypothesis. *J Neurol Neurosurg Psychiatry* 2003;74:602-7.
9 Swedo SE, Leonard HL, Rapoport JL. The pediatric autoimmune neuropsychiatric disorders associated with streptococcal infection (PANDAS) subgroup: separating fact from fiction. *Pediatrics* 2004;113:907-11.
10 Sandor P. Pharmacological management of tics in patients with TS. *J Psychosom Res* 2003;55:41-8.
11 Robertson MM. Invited Review: Tourette syndrome, associated conditions and the complexities of treatment. *Brain* 2000;123:425-62.
12 Scahill L, Leckman JF, Schultz RT, Katsovich L, Peterson BS. A placebo-controlled trial of risperidone in Tourette syndrome. *Neurology* 2003;60:1130-5.

Troponin in patients with chest pain

We need to ensure that troponin is only one element of the management algorithm

For several years the measurement of serum troponin concentration in patients presenting with acute chest pain has been routine in most hospitals in the United Kingdom. Guidelines now demarcate myocardial infarction with ST elevation from acute coronary syndromes such as unstable angina and myocardial infarction without ST elevation. Since the early 1990s studies have repeatedly confirmed that troponins are released by some patients with acute coronary syndromes and represent a marker of risk for subsequent cardiac events.[1–3] FRISC-II, TACTICS-TIMI 18, and RITA3 all indicate that early angiography and revascularisation can reduce the risk of events in this cohort, thereby improving prognosis.[4–6] As a consequence, management of acute coronary syndromes without ST elevation has changed dramatically in the United Kingdom.[7]

Formerly, patients were treated medically and considered for early revascularisation if they had ongoing ischaemia, which represents only about 10% of such a group. By contrast, current guidelines recommend early invasive treatment in patients not only with ongoing ischaemia but also those with elevated troponins with or without ST depression. In the United Kingdom we are therefore trying to manage a substantial proportion of patients with acute coronary syndromes by early angiography and revascularisation, a strategy that guarantees mismatch between demand and available resources.

This strategy necessitates a wait in hospital for transfer to a tertiary centre for most patients. Furthermore it has led to suboptimal and inequitable management for, perhaps, most patients for the following reasons. Firstly, patients awaiting transfer occupy a huge number of bed days,[8] even when asymptomatic and mobile. This delay is detrimental to both patients and their families and the efficiency of hospitals. Secondly, as invasive facilities cannot cope with this

BMJ 2004;329:1357–8