Assessment of acute exposures is often straightforward, but in the chronic setting assessment is often far from easy, although recent developments in assessment of life-long exposure will prove a major advance in improving the estimation of exposure and consequently of dose.[5] At the other end of the "exposure, effect, control" paradigm, health impact assessment is the linchpin around which establishment of control measures should occur.[6] Yet, although this is to some extent addressed by the Environment Agency, no mention of Health Impact Assessment is made in either the Health Protection Agency's document or that on sustainable development. Knowledge of all factors contributing to the links between exposures, their effects, and their control does demand coherent collaboration between a range of agencies and skills,[2] stretching much wider than clinicians, public health doctors, and toxicologists. For instance, advances made in the understanding of the effects of air pollution have been dependent on collaboration between meteorologists, statistical modellers, exposure assessors, physiologists, epidemiologists, clinicians, laboratory scientists, atmospheric chemists, and material physicists in addition to direct input from the public. This multiskilled, cross-disciplinary approach largely emanates from the field of occupational medicine and health.

The Health Protection Agency is only part of the way there. It now needs to think outside the conventional, public health driven box. Its plan rightly talks of the need to train a workforce with the appropriate skills, which need to be broad and embrace other areas of environmental science (for example, hydrology, plant and soil science, and atmospheric chemistry). There is a need to develop integrated ways to train, help establish career paths, and define and undertake the research agenda, embracing the multidisciplinary approach alluded to above. This could be paralleled at a managerial level by considering the merger of COMEAP and EPAQS as an integrated committee dealing with air quality and health issues, and doing so within the Health Protection Agency rather than linked to a specific government department. A similar approach could be taken for the available expertise in the effects of water borne exposures but both these moves would need to consider how best the Health Protection Agency can work with the Environment Agency in this regard.

The thinking which went into these documents should now be joined up and a fresh review across a wider stage be established to ensure a truly integrated plan for delivery of public health protection.

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Early intervention for first episode psychosis

Needs greater involvement of primary care professionals for its success

Early intervention in psychosis is a relatively new concept in mental health. It describes the policy of the health service and its response to increasing evidence of unacceptably long delays in accessing specialist services and the benefits of earlier detection and treatment for young people who experience their first episode of psychosis (when someone displays typical symptoms, such as distorted contacts with reality, delusions, hallucinations, and thought disorder, and no organic disorder can be found to explain those symptoms). It is also a concept that requires primary and secondary care and wider involvement of the community to make a difference to the outcome.

Like most mental disorders, functional psychoses such as schizophrenia and bipolar affective disorder usually appear when people are young (80% of first episodes of psychoses occur between 16 and 30 years of age), at a critical time in their intellectual and social development and emerging personal autonomy. Worldwide, the burden of psychosis is exceeded only by quadriplegia and dementia.[1] The all cause standardised mortality ratio for schizophrenia is 298, with an unnatural cause standardised mortality ratio (that includes suicide) of 1273, 12 times higher than expected.[2]

Studies consistently show intervals of one to two years between the onset of psychotic symptoms and the start of treatment.[3] Although still disputed, the duration of untreated psychosis is also likely to relate to outcomes in first episode psychosis, particularly functional and symptomatic outcomes at 12 months and reduction of symptoms once treatment begins.[4 5] Long term follow up studies show that outcomes at two years strongly predict outcomes 15 years later.[6] Birchwood argues that these observations support the concept that the early phase of psychosis constitutes a critical period for treating this illness, with major implications for secondary prevention of impairments

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and disabilities, and provide a further rationale for intervening intensively and early.[7]

Early intervention for psychosis has now become a political priority in the United Kingdom and early intervention services are being developed across England. The *NHS Plan* says that 50 early intervention teams will be established by 2004, so that all young people (between 14 and 35 years) who experience a first episode of psychosis such as schizophrenia receive the early and intensive support they need.[8] However, new services in isolation may be insufficient to make a difference to the healthcare experience of young people with first episode psychosis and their families. To be maximally effective, early detection in primary care and facilitation of help seeking in the wider community must also be addressed.

Most general practitioners see one or two new people with a first episode of psychosis each year. Recent national guidance on schizophrenia and the mental health indicators in the new general practitioner contract may affect the roles and responsibilities of primary care by encouraging a more systematic approach to care, including the use of protocols and referral guidelines.[9] Nevertheless some general practitioners believe that they contribute little to the care of people with serious mental illness and that the incidence of first episode psychosis is too low to warrant more active involvement.[10] However, we know that general practitioners are often consulted at some point on the illness pathway on matters connected with a developing psychosis[11] and are the most common final referral agent. Involvement of general practitioners is also associated with reduced use of the Mental Health Act.[12] Primary care therefore has a potentially pivotal role in reducing duration of untreated psychosis and influencing the course and outcome of first episode psychosis.

Early detection is a diagnostic challenge for general practitioners when psychosis can take several months to emerge from a prodrome of non-specific psychological and social disturbances of varying intensity that can be difficult to distinguish from normal adolescent behaviour. An active watching brief typifies an approach that might regard non-attendance as a signal of deterioration rather than of resolution of symptoms. Such an approach would also involve actively seeking positive and negative psychotic symptoms and suicidal ideation. Parental fears and intuition would be particularly heeded and sensitivity given to the impact of an emerging psychosis on the family. General practitioners would have a high index of suspicion and a low threshold for urgently referring a young person with a possible first episode psychosis for specialist mental health assessment.[9]

Detection and referral are crucial but need to be underpinned by community based initiatives that promote and encourage help seeking. Such an approach makes sense for all mental illness, not just psychosis where the stakes are arguably the highest. Primary care trusts have a role in promoting mental health within the communities they represent and helping to reduce the stigma of mental illness. Early results from the "Treatment and Intervention Psychosis" project in Norway show that a programme of extensive public education and specific education for teachers, youth workers, and general practitioners about first episode psychosis can reduce the duration of untreated psychosis.

The real challenge for primary care therefore goes beyond improving the competence and knowledge of individual general practitioners or raising awareness of the new early intervention services. The concept of early intervention puts the onus on primary care and other community services to make themselves accessible, non-stigmatising, and relevant to young people, whether dealing with a mild and self limiting depression or a major psychosis. Young people with emerging psychoses and their families also need to feel confident that primary care services will integrate with the new early intervention services to ensure they receive the highly specialised interventions they require both at the onset of the illness and in the longer term in a timely fashion. If we achieve that then early intervention really will have become everybody's business.

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