

Is the villin defect described by Phillips and colleagues cause or consequence of the cholestatic liver disease? Unfortunately Phillips' group did not analyse the villin gene in their patients. Some infectious diseases may cause disruption of villin expression.⁸ Whether villin might also be a target for viruses is not known. Thus, although the villin defect described by Phillips and colleagues is highly interesting, the question remains whether this defect is genetic or perhaps acquired during embryogenesis. Also the possibility that the defect is secondary to cholestasis cannot be ruled out.

We have no conflict of interest to declare.

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Urban health: a new discipline

City living is a reality for many and is rapidly becoming so for most of the world's population. More than half the world's population will be living in urban areas before the end of this decade and nearly two-thirds will live in urban areas within 30 years.¹ Although North America and Europe are the world's most urbanised regions, most of the global urban population is on other continents. In 2000, the number of urban dwellers in the least urbanised region, Asia, was already greater than the urban population in North America and Europe combined, and most of the growth in urban populations will take place in less wealthy regions, particularly in Asia and Africa.^{2,3}

Why should health professionals take a particular interest in urban living? Urban living has long been associated with health, both positively and negatively. In the world's wealthier countries, cities in the 19th and at the turn of the 20th century were plagued by infectious diseases associated with crowding.⁴ Epidemics of influenza, typhus, and tuberculosis killed millions of people in cities with poor sanitation and squalid living conditions. After a revival in the quality of most cities in the developed world in the middle of the 20th century, recent history has seen growing disparities in the health of urban residents compared with suburban and rural populations. The emerging HIV epidemic and a rise in violence in the 1980s exacerbated the

burden of disease in many cities.^{5,6} Terms such as urban penalty have been proposed to account for this excess burden of disease.⁷ In less wealthy countries, infectious diseases were the largest contributors to morbidity and mortality in urban areas throughout the 20th century.^{8,9} However, at the end of that century, a growing middle-class in many of these cities was accompanied by a rise in chronic diseases, resulting in a double burden of disease affecting many of the world's most populous cities.⁸ On the other hand, many public-health interventions have been implemented primarily in cities, and specialised medical care is often found in cities rather than in less urban areas.

Although public-health interventions have long had a role in the control of disease in cities,^{4,5} research about the features of modern urban areas and the facets of urban living that influence health has been sparse. During the past several decades, much research has focused on documenting the burden of disease in inner-city areas. Different academic disciplines have studied the health of marginalised groups without fully exploring the role that the urban context itself played both in the groups' marginalisation and in shaping the health of these populations. For example, much research about the health of drug users, particularly into the spread of HIV and other infectious diseases, has explored individual risk-behaviours that are important within this group, but often with a limited focus on how living in cities affected these risk behaviours.

A small but growing body of work now recognises that the role that the urban environment has in shaping health and disease is itself of interest.¹⁰ Understanding the urban factors that are risk or protective factors for health can capitalise on the positive aspects of urban living and lead to the development of appropriate interventions and preventive measures. Given the growing predominance of urban living, interventions that take into account features of the urban environment have the potential to be widely applicable and to influence the health of vast numbers of people.

However, there is a long way to go before health professionals can understand features of city living well enough to be able to improve the health of urban dwellers. There are several barriers to the study of urban health as a cogent discipline. First, urban health is currently the domain of multiple disciplines. Urban planners can bring to the field perspectives about city design and how this might affect behaviour and even wellbeing in cities. Urban sociologists study interactions in densely populated cities. Epidemiologists document the burden of disease in urban areas and the factors associated with those diseases. Unfortunately, these disciplines seldom speak the same academic language and tremendous barriers exist to true cross-disciplinary work. There is no common vocabulary for urban health. Different disciplines have used words such as urbanism, urbanisation, and urbanicity to represent different concepts, hindering the ability of different disciplines to learn from one another. Second, and perhaps curiously, although there have recently been several academic exercises devoted to rural health, there has been little effort concentrated at bringing together researchers and practitioners from different disciplines who can illuminate understanding of key issues in the discipline.

A meeting¹¹ at the New York Academy of Medicine, New York City, on Oct 15–17, 2003, co-sponsored by several academic and public-health institutions worldwide, will be the second in a series attempting to lay the foundations for the proposed discipline of urban health. Questions that will be addressed include: what is urban health and how should different aspects of urban living be considered as potential

determinants of health? What are the fundamental characteristics of the urban physical and social environment that might affect health? What are the public-health interventions that could improve the health of urban populations? And how can urban health become consolidated as a discipline, and how can a body of theory and practice be taught effectively to health professionals?

We are co-chairs of the second international conference on urban health.

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Putting Jenner back in his place

Debate about what statues should or should not be in one of the most famous public places in the world, Trafalgar Square in London, recently resumed with the announcement by the Greater London Authority of the sculptors who have been shortlisted to create a contemporary artwork to occupy an empty plinth.¹ The square has recently been remodelled, and the Mayor of London advocates the erection of a permanent statue of Nelson Mandela in it.² But perhaps the time has come to reverse the unceremonious eviction from the square of the statue (figure) of an international medical hero (which used to be on different plinth).

The development of an effective form of vaccination

Edward Jenner's statue in Kensington Gardens, London, UK



Rachael Davies

against smallpox just over 200 years ago by Edward Jenner, a physician and natural scientist in the west of England, was the decisive breakthrough that laid the basis for the eventual eradication of the disease. By the early 1950s smallpox was no longer endemic in Europe, but there were still 50 million new cases worldwide each year.³ Smallpox was devastating; about 30% of those affected died of the disease and the rest were left scarred and often blinded. Less than 30 years later the disease was declared eradicated by WHO after a global vaccination programme. WHO has delayed the destruction of the remaining stocks of variola virus so that further research can be done if needed.

Concern about the possible deliberate release of smallpox as a form of bioterrorism has led to the development of contingency plans in several countries. In England the plan includes the vaccination of teams of health professionals who would be called on if deliberate release of the virus was suspected.⁴ The principles of the management of a smallpox incident would still be isolation of cases and vaccination of contacts. So, after 200 years, the pioneering work of Jenner remains the basis of public protection against this important disease.

Jenner was perhaps the first international medical hero and was appropriately honoured in many countries worldwide. But his memory has been neglected in his own country.⁵ Jenner was born and died in the village of Berkeley in Gloucestershire, where, in the course of his medical practice, he developed vaccination. The house where he lived contains an impressive museum dedicated to his memory.⁶ A committed international effort, in which the USA and Russia were the major financial contributors, led to the erection of a statue of Jenner in Trafalgar Square in 1858, some 36 years after his death. The statue was not permitted to remain in the square however, since it was felt that such a prominent place should be reserved for heroes of the process of taking lives in the course of gaining martial glory, rather than for a doctor engaged in saving lives. Despite opposition from the *British Medical Journal*,⁷ after only 4 years the statue was banished to Kensington Gardens in London.

The eradication of smallpox in 1980 is arguably the greatest achievement of humankind. How fitting it would be if the memory of the man whom we have to continue to thank for keeping us safe should be honoured by putting his statue back where it rightly belongs.

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