

In children, there is the added complexity of haematological changes which are thought to occur from birth to 10 years of age,¹⁵ but may extend to 18 years of age in African populations.¹⁶ CD4 percentages in young children are more predictive of later mortality than are absolute CD4 counts, and as Dunn and colleagues discovered, TLCs have a weaker association with mortality in younger children. Despite these limitations, Dunn has empirically validated this measure as being associated with mortality.

Without CD4 testing, even an imperfect addition to clinical assessments will likely result in improved clinical management of paediatric and adult patients infected with HIV in low-income countries where access to ART is currently expanding relatively rapidly. The available evidence allows a compelling argument to be made for clinical trials and cost-effectiveness analyses to directly assess the performance of TLCs compared with CD4 counts in determining clinical eligibility for ART in countries with limited resources. In the interim, the Dunn study and others¹³ argue quite convincingly that current WHO recommendations for thresholds to determine treatment eligibility with TLCs are set too high for both adults and children, and should be revised.

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COPD: good lung health is the key

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Today's *Lancet* presents informative and somewhat surprising findings from PLATINO—the Latin American Project for the Investigation of Obstructive Lung Disease.¹ The report is the first of what we hope will be a series of papers to assess the burden of chronic obstructive pulmonary disease (COPD) in five low-income and middle-income countries in Latin America—Brazil, Chile, Mexico, Uruguay, and Venezuela.

Although COPD is not a new disease, over the years

many changes in its name, definition, and diagnostic criteria² have greatly thwarted our ability to make international comparisons of its prevalence. Fortunately, the publication of standards for diagnosis and management of COPD in 2001³ (updated 2005⁴) has stimulated work in several countries to gain a better understanding of the toll of this disease.

The potential effect of such work is shown by the PLATINO results, which uncovered a substantial—and

until now unrecognised—burden of COPD in Latin America. These findings point to an urgent need for greater awareness by health officials and the public that COPD is a substantial public-health problem, and that stronger measures are needed to address the disease.

COPD is probably the only chronic disease for which the finger of blame can be pointed at a single risk factor—tobacco smoking. Over many years, medical and scientific groups have focused their attention on persuading smokers to quit and convincing non-smokers to refrain from taking up the habit. These efforts should, of course, continue. However, while cigarette products exist, people will go on using them—indeed, PLATINO noted smoking prevalences of between 24% and 39% in the cities surveyed—and will continue to get COPD. This is the unfortunate reality in both developed and developing countries, and one that exists despite huge anti-smoking programmes.

In the USA, deaths attributable to COPD increased 168% over a period when death rates from cardiovascular diseases—which also have cigarette smoking as a risk factor—were on the wane (figure)^{4,5} due to aggressive and widespread programmes for early diagnosis and treatment of cardiovascular diseases. Just because a risk factor for a disease is known, and the disease is, therefore, deemed to be preventable, there is no reason to ignore the care of patients who have the disease. Yet, sadly, this is often the case for people with COPD.

We hope that data presented by the PLATINO investigators will add vital ammunition to the arguments of workers proposing programmes for early diagnosis and treatment of COPD. Such programmes need not be difficult or daunting. For example, a simple spirometry tracing in every 40-year-old smoker with respiratory symptoms could identify many thousands of people in the early stages of COPD.⁶

For many chronic diseases, physicians are eager to obtain baseline data on their patients; yet, there has not been a clear message to encourage collection of baseline lung-function data, which can be obtained quite easily and cheaply. By about age 18 years, the lungs have reached maturity and peak function.^{7,8} Thereafter, pulmonary function follows a gentle slope downwards over time, with a steeper decline in those who smoke cigarettes or who are exposed to other sources of pulmonary risk, such as indoor smoke (eg, passive smoking, indoor fires) or occupational factors.

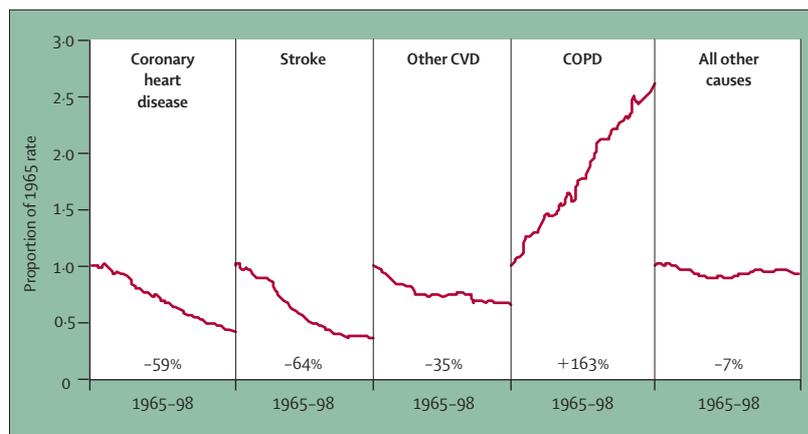


Figure: Change in age-adjusted death rates, USA, 1965–98
CVD=cardiovascular diseases.

At around age 18 years, many people have a medical examination for one of several reasons—to enter college or military service, to secure a job, or to have a baby. If a pulmonary function test were added to the battery of screening procedures at this age, just think how easy it would be to subsequently identify a person whose lung function had been declining through the third or fourth decades of life. As we learn more about the epidemiology of COPD, it should be an incentive for physicians, as well as the general public, to recognise the value of good lung health and to take appropriate actions to reduce the effect of COPD in our ageing population.

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HIV risks in incarcerated injection-drug users

“I’ve known syringes that have gone through 30–40 people’s hands. I swear to God. They have been used by that many different people”, so said an inmate referring to syringe sharing in a Canadian prison.¹ The HIV/AIDS epidemic remains a global crisis affecting millions of lives. While sub-Saharan Africa has the largest burden of HIV/AIDS, in many other regions now hardest hit by HIV, such as parts of Asia, eastern Europe, and the former Soviet Union, injection-drug users (IDUs) and their sexual contacts account for most new infections.² There is an urgent need for interventions to curb the transmission of HIV in this population. Unfortunately, in most settings, public resources for the problem of injection-drug use are used to fund criminal-justice interventions rather than sound public-health programmes.^{3,4} As a result, most countries now have record numbers of IDUs behind bars.³ In turn, there have been vastly disproportionate rates of incarceration of HIV-infected individuals. In one study, more than 25% of those with HIV in the USA passed through a correctional facility each year,⁵ and in settings around the world where HIV is endemic in IDUs, the HIV burden is higher in inmates.³

The incarceration of IDUs has major consequences for public health because of the potential for infectious-

disease transmission between drug-using inmates. This potential is particularly applicable to HIV transmission, a point which received significant attention after a study in a Scottish prison.⁶ Unfortunately, public-health policy-makers have mostly failed to respond appropriately to these concerns and, despite the diversity of incarcerated populations and prison settings, increased HIV risk has been independently associated with incarceration in a wide range of settings from Thailand to Canada.^{1,7–9}

Within prisons, HIV-infected populations are often kept close to high-risk populations, and these social-network characteristics undoubtedly contribute to HIV risk behaviour in these environments.¹ Unfortunately, this problem is made worse because prevention methods proven in the community are rarely available in prison. This is despite the consensus of many international guidelines that the standard of health care for prisoners must be similar to that for the general community. For example, in 1990, the UN General Assembly adopted the principle that: “Prisoners shall have access to the health services available in the country without discrimination on the grounds of their legal situation.”¹⁰ This principle of equivalence applies to even the most controversial HIV-prevention programmes, including needle exchange. For instance, in 1993, WHO published a guideline that: “in countries where clean syringes and needles are made available to injecting drug users in the community, consideration should be given to providing clean injecting equipment during detention.”¹⁰ Whilst there have been successes with prison-based needle exchange in several countries,¹¹ including various resource-limited countries, in most settings where HIV is endemic in IDUs this intervention and other strategies, such as methadone maintenance therapy, have not been used.

Incarceration does not reduce overall levels of illicit drug use, or the related health, social, and fiscal harms.¹² Thus the policy of mass incarceration of non-violent drug-offenders needs review. However, in the short term, there is an urgent need to ensure that standards of

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