Pending such analyses, how should clinicians now apply Wong and colleagues'[1] data to their patients? We suggest that the two broad indications for treatment that apply to all chronic diseases—loss of quality of life and danger (in this case, a scenario of moderate to severe loss of lung function in association with evidence of continuing disease progression)—should be the basis for intervention. Patients with functionally mild disease should not be treated with long-term azithromycin unless there is major morbidity or evidence of disease progression despite adherence to physiotherapy and the early use of broad spectrum antibiotics for infective exacerbations. We urge researchers designing interventional protocols in any chronic disease to plan to investigate treatment effects against baseline measures of disease severity and patterns of disease behaviour. Without these analyses, how can clinicians know with confidence which patients to treat?

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Curtailing tobacco use: first we need to know the numbers

Data, transformed through aggregation and analysis into useful information, are key elements for decision making. This notion is true in general and has become a precept for promotion of health and control of disease. Tobacco use globally is the main preventable contributor to poor health and premature death.[1] In *The Lancet*, Gary Giovino and colleagues[2] describe the acquisition of high-quality data for tobacco use from 14 countries through the employment of well-designed and well-implemented surveys, the Global Adult Tobacco Survey (GATS), with 16 countries studied in total. GATS was originally developed by the US Centers for Disease Control and Prevention (CDC) and has been widely applied by host countries working with CDC and WHO.

Accurate data are needed on the characteristics of tobacco users (eg, age, sex, income, and occupation), how tobacco is used (smoking cigarettes, bidis, or water pipes *vs* chewing tobacco or taking snuff), and where and why people use tobacco. Such data are vital for planning purposes, such as designing interventions and targeting at-risk groups, and for evaluation and programme assessment purposes, such as establishment of the baseline and examination of data after an intervention has been applied (ie, whether or not an intervention works). Effective policy development and assessment depend on such data and information.

Thus, a reliable measurement technique that can be used by all countries to obtain this information has been desperately needed to address the huge global health threat of tobacco use. GATS offers such a technique: the standardised questionnaires it employs enable, for the first time, comparative data analysis. Impressively, GATS already covers more than half the world's population.

Giovino and colleagues' report[2] offers a spectrum of global tobacco use, and the differences between nations are interesting and important. Although many more men than women smoke in all countries surveyed, the prevalence of current smoking for women varies greatly, from 0·5% in Egypt to 24·4% in Poland. How people use tobacco varies substantially, as does the age at which people start tobacco use. These data are not static. With behaviours and lifestyle in flux globally and marketing

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rampant, we can expect initiation of tobacco use to begin at younger ages than at present, and pressures on young women to smoke to increase. Hopefully, with successful control efforts, there will be an increase in attempted and successful quit rates. Thus, repeated GATS or their equivalent will be an essential element of tobacco control.

In view of the health burden of tobacco use, the underinvestment in tobacco control is extraordinary. For example, core funding by governments for implementing the WHO Framework Convention on Tobacco Control (FCTC) within their own countries is woefully inadequate for the enormity of the epidemic.[3] For example, in low-income countries, for every US$9100 received in tobacco taxes, only $1 was spent on tobacco control. However, effective tobacco-control approaches have been seen with huge health and economic benefits in many countries. Through multiple educational, mass media, policy, and regulatory efforts, smoking prevalence in Hong Kong has declined over 50% from 1982 to 2008.[4] Whether the WHO approaches to tobacco control (FCTC and MPOWER[5]) are used, or other similar schemes of effective control and prevention interventions—such as smoke-free legislation and enforcement, increased tobacco taxation, increases in population knowledge of tobacco risks, and changes in population attitude toward the social acceptability of smoking and the value and feasibility of quitting— proven techniques exist to diminish tobacco use. The Bloomberg Philanthropies' Initiative and the Bill & Melinda Gates Foundation deserve great credit for tackling this major health threat, and their continued interest and role will be crucial to the success of tobacco control. Beyond the financial investment and introduction of technical assistance, their interest encourages governmental attention to tobacco control and improves the evidence base and scientific quality of control efforts, as seen in support for GATS. Nevertheless, interest and investment in tobacco control need to extend beyond two philanthropic organisations and involve governments at many levels, other philanthropic groups, and global health and development agencies.

The main challenge is how to translate the findings from GATS and other surveys into health policy. Many governments do not instinctively reach for data when designing policy. Assumptions that research findings will lead to policy change, basing policy on evidence, are overly optimistic, whether in high-income countries, where political factors can override scientific evidence, or in low-income and middle-income countries, which might not have a tradition of linking research and data to decision making.[6]

Few policy makers have the scientific background to assess the validity and quality of even the high quality data of GATS. Governments might also reason that scientific evidence is only one aspect of designing policy. They suggest that they have to listen to all opinion, including the tobacco industry and public (who can be poorly informed).[7]

The need to bridge the existing gaps between research, policy, and practice is a global phenomenon. Three resolutions—the Mexico Action Statement on Health Research in 2004 (58 countries), the related World Health Assembly resolution in 2005 (193 countries), and the Bamako Call to Action on Research for Health in 2008 (53 countries)—urged researchers, policy makers, and health care providers to collaborate in efforts to bridge these gaps.[8]

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