Cut greenhouse gases, improve health: scientists

The short-term public-health impact of reducing greenhouse gases (GHGs) in 4 major cities across the Americas has been quantified by a team of environmental health researchers (*Science* 2001;293: 1257-9). They argue that these benefits have been overlooked in assessments of global warming and should be integrated into the climate policy debate.

The effect of mitigating GHG emissions by using existing technologies on particulate levels and ambient ozone was evaluated for Mexico City, Santiago, New York and São Paulo. Considering these pollutants alone, the researchers concluded that over the next 2 decades, 64 000 premature deaths could be avoided, along with 65 000 cases of chronic bronchitis and the loss of 37 million person days of work.

"What we are trying to show here is that there are no winners if global warming continues to proceed without being addressed seriously," says team leader Devra Davis of Carnegie Mellon University in Pittsburgh. "Scientists have a responsibility much like that taken on by the Physicians for Social Responsibility with respect to nuclear disarmament."

The wisdom of mitigating global warming has recently been questioned by Danish environmental writer Bjorn Lomberg, who maintains that the future benefits of reducing fossil fuel consumption are outweighed by the costs of curtailing economic growth in the meantime. Davis' team points out that failure to reduce emissions also brings immediate economic costs because of work days lost.

She cited an Ontario Medical Association study which determined that 1900 Ontarians died prematurely from the effects of air pollution in 2000, and that it cost the province more than $1 billion annually because of hospital admissions, ER visits and absenteeism. "Anywhere in the world where there is uncontrolled use of fossil fuels people are paying a price," says Davis.

Andrei Tchernitchin, secretary of the Chilean Medical Association's Health Commission, supports the paper's conclusions. "Santiago's air pollution is causing not only acute respiratory infections and an increase in premature mortality due to cardiovascular or pulmonary disease, but in the long term also chronic diseases such as lung cancer and persistent impairment of immune function hormone regulation." He says it is insufficient simply to publicize the dangers of air pollution, and emphasizes the active role played by doctors and researchers in formulating the environmental policies and regulations that have reduced particulates in Santiago by 50% over the last decade.

Just as the effects of global warming are expected to vary across the planet, the health impact of carbon emissions is distributed unevenly and strikes disproportionately in cities, where 3 billion people live. This raises doubts about the utility of the "carbon-sink" strategy favoured by the Canadian government, which seeks to curb GHGs by allowing emissions in populated, industrial areas to be traded for tree planting in less-populated regions. "Trading is going to be an important way to get reductions, but it cannot be done at the price of public health," says Davis. "Any carbon-offset or sink policy has to take into account the immediate public health effects of allowing emissions at a certain level in a given area. . . . We believe the decisions that affect these policies are fundamentally local decisions." — *Claudia Orellana*, Tübingen, Germany

Australia's safe "shooting gallery" proving popular

Three months after its launch, the first safe injection site in Sydney, Australia, was busier than expected, and none of the potential problems that had worried neighbourhood businesses had made an appearance. More than 800 users registered and 3200 injections took place at the centre during the first 3 months. Tony Trimingham, who heads a government-funded agency working on changes to Australia's drug laws, says he's "incredibly happy with it." A call for similar facilities was made recently in Canada (*CMAJ* 2001;165[4]:436-7).

Drug users enter the inconspicuous storefront building, which has tinted windows, and complete a comprehensive questionnaire to register. They move on to an injection area, which can accommodate 16 drug users at once. Users stay an average of 20 minutes, and leave discreetly via a back entrance. About half of the users inject heroin; the rest use cocaine, methamphetamine and methadone. The staff — nurses and social workers — encourage users to take their time, since haste can cause vein damage.

Canapress

Amsterdam began funding safe injection sites like this one 3 years before Sydney launched its first site.

General health care is also offered, particularly surrounding vein-related problems and sexual health. As well, 35 people have been revived in the centre's following drug overdoses. The centre has a medical director, and 2 additional doctors are available at a nearby facility. Several family physicians in the area informally refer patients to the site, which was endorsed by the Australian Medical Association during its planning stages.

Staff are allowed to advise on drug-injection techniques but are not allowed to help people inject. "Moderation, prevention and treatment are constant messages from the staff, posters and brochures," says Trimingham, whose son died of a heroin overdose about 5 years ago. "The service, like needle programs, accepts drug use nonjudgementally, but there is no overt message that using [drugs] is recommended." The project will be evaluated in 15 months. — *Heather Kent*, Vancouver