

## **Canadian doctor and WHO senior adviser says that four groups need to work together to contain coronavirus outbreak**

[By Kate Allen, science and technology reporter, \*Toronto Star\*, Feb 29, 2020](#)

Bruce Aylward has been parachuted into the epicentre of some of the most tragic and terrifying infectious disease outbreaks of the past quarter-century. He was in Brazil at the height of the Zika crisis, in West Africa as Ebola rampaged, and in Central Africa during a surge of yellow fever.

On February 25, the Canadian doctor and World Health Organization senior adviser returned from a WHO-China joint mission intended to discover as much as possible about the novel coronavirus that emerged in late December in the Chinese city of Wuhan. The virus has so far infected nearly 85,000 people in 51 countries, including 14 in Canada.

Aylward, WHO team lead, says the mission uncovered critical nuggets of information about the disease — and lessons for countries such as Canada on how to contain it. “This one, it hits right in that virus sweet spot of where it can wreak havoc,” Aylward told the Star Friday from Geneva, where WHO is headquartered.

The novel coronavirus is neither the most lethal, nor the most easily transmitted of the newly-emerged pathogens that have threatened human health in recent years, Aylward explained — but its “rare combination” of both infectiousness and lethality makes it a formidable threat. On Friday, WHO upgraded its global risk assessment for the outbreak to “very high.”

There is still time to avert a pandemic, Aylward emphasizes, and individuals can do simple, effective things to contribute, from the oft-mentioned hand hygiene to being armed with information. “You’re not helpless.”

The joint mission, co-led by the Newfoundland-born Aylward, included 25 experts from various countries, spent nine days travelling around China collecting data and talking to doctors, epidemiologists and other front-line workers. Aylward says the team typically worked 20 hour days, rising at 7 a.m. and stopping at 2 or 3 a.m.

Their most reassuring finding, Aylward says, is that China didn’t appear to have a large number of undetected cases of COVID-19, the disease caused by the novel coronavirus, as some had feared. The team’s most worrying finding, by his estimation, is that they still don’t understand why some young, healthy patients die, although the majority go on to fully recover.

According to [the joint mission’s report](#), released Feb 29, the group of patients most at risk of dying from COVID-19 are people over 60 years old and those with underlying conditions, especially cardiovascular disease, diabetes, and hypertension. More men died than women.

A finding that will comfort parents: COVID-19 appears to be both rare and mild in children, with only 2.4 per cent of China’s total reported cases reported in people under 19 years old.

Eighty per cent of patients had a mild or moderate form of the disease, and went on to recover fully. But some young people died. Notable among them was the doctor who became a hero in China after he was punished for raising the alarm about the outbreak and who then became infected himself. “Who are these young people ... who suddenly progress and deteriorate? Is there a way we can identify them?” Aylward said. “We’re behind the eight-ball on that one.”

The Chinese government’s aggressive interventions to try to slow the spread of COVID-19 have been the subject of vigorous debate. Entire cities and provinces were immobilized for weeks. Some have described the measures as draconian, while others said they gave countries time to prepare. Aylward says that mass quarantines should not be required in any country that has successfully contained the spread of the virus: the situation in China was unique to it as the site of the emergence of the virus and home to an enormous population. Otherwise, in China’s interventions, “just objectively, they’re hitting a level of performance that you just don’t see,” he says.

The joint mission’s report notes that, in Wuhan alone, more than 1,800 teams of epidemiologists, each with a minimum of five people per team, traced tens of thousands of contacts of sick people every day.

“Contact-tracing” is a critical component of the public health tool kit: it involves tracking down anyone who might have come in contact with a sick person and monitoring or isolating them in order to contain the spread of disease. In Shenzhen City, the report notes, workers managed to find all 2,842 close contacts of known coronavirus cases, identifying 88 new cases among them — each of which could have begun a new chain of transmission.

Other experts have said it’s too early to evaluate China’s success. But Aylward believes that China’s disciplined approach can be emulated by other countries, including Canada — though he notes that Canada already has the perverse advantage of having lived through SARS.

“Canada began preparing for this in 2003,” said Aylward, the year that Severe Acute Respiratory Syndrome, which was also caused by a coronavirus, emerged. The outbreak overwhelmed Ontario’s underprepared health care system in particular — and led to increased investments in infection-control at hospitals and public health units, although some of the latter have since been chipped away.

Aylward says that four groups of people need to work together to successfully contain an outbreak: leadership at the top, public health teams, front-line care providers, and the public as a whole.

Countries need a clearly defined leader — either a head of government or an appointed czar — “who can repurpose whatever part of government” needs to be, Aylward says. Public health teams are critical for contact-tracing and other forms of monitoring. Care providers — and care beds, in sufficient numbers — are vital for treating patients.

“If you invest in one thing, invest in your people. Just turn on your whole public-information machinery,” says Aylward. People need to know how to reduce the risk of illness, and what to do if they think they have symptoms of COVID-19 (see below). “The key thing is, understand as much as you can.”