

Mandatory vaccinations: The international landscape

Vaccination policies in countries around the world are so varied and fractured they almost seem Canadian. While some countries focus on educating their populace about the benefits of vaccination while leaving the choice to individuals, others offer financial incentives or have made vaccinations mandatory to ensure high coverage rates.

Enforcement is another issue. Several countries with mandatory vaccination policies opt not to enforce them. And most everyone appears to agree that vaccination programs must allow for medical exemptions.

As with three Canadian provinces (www.cmaj.ca/lookup/doi/10.1503/cmaj.109-3992), every state in the United States requires children to be vaccinated before attending school, says Dr. Lance Rodewald, director of immunization services for the National Center for Immunization and Respiratory Diseases at the US Center for Disease Control and Prevention in Atlanta, Georgia.

Most states allow for medical, religious and philosophical exemptions but Mississippi and West Virginia have taken their policy a step further and only allowed for medical exemptions.

"There's a lot of variability state by state on what it takes to get an exemption," Rodewald notes, adding that in some states, parents can simply request exemptions, without having to provide a justification, while other states require a notarized signature on a statement indicating that the parents are aware that they are putting their child at risk. There's a direct correlation between the ease with which exemptions are granted and exemption rates, he says, citing a study that also shows there is a link between ease of exemption and disease prevalence rates (www.ncbi.nlm.nih.gov/pmc/articles/PMC1446650/pdf/11291383.pdf).

Most American children do get vaccinated, however, so the role of mandatory vaccination legislation is essentially to rope in the "stragglers,"



© 2011 Thinkstock

In Australia, parents receive nontaxable payments for each child aged 18–24 months and 4–5 years who meets immunization requirements.

Rodewald adds. "That last 10% who may have forgotten to get a dose of vaccine."

Other countries, such as Australia, offer financial incentives to boost compliance rates. Parents receive nontaxable payments of A\$129 for each child who meets immunization requirements between 18 and 24 months of age, and again if the child meets requirements between four and five years of age.

"Vaccination is not compulsory in Australia. However, the Maternity Immunisation Allowance and Child Care Benefit are parent incentive payments that are paid where a child is up-to-date with his/her immunisations or the parent has obtained an appropriate medical or philosophical exemption," an immunization coordinator for the Australian Department of Health and Ageing writes in an email.

Australia does not require children to be immunized for school attendance but unvaccinated students are precluded from attending classes in the event of

disease outbreaks. "The implications of this become apparent when the parents have to take time off work," Michael Moore, chief executive officer of the Public Health Association of Australia, writes in an email.

Some nations, such as Latvia, say they have mandatory vaccination policies but contend that the notion of "mandatory" differs from that of other nations. "Vaccination is mandatory for state institutions and vaccination providers but for [the] public is recommended and offered free of charge," Jurijs Perevoscikovs, head of the Epidemiological Safety and Public Health division of the Infectology Center of Latvia, writes in an email.

Vaccines that are not mandatory are not publicly funded, so the cost for those must be borne by parents or employers, she adds. Funded vaccinations include tuberculosis, diphtheria, measles, hepatitis B, human papilloma virus for 12-year-old girls, and tick-borne encephalitis until age 18 in endemic areas and for orphans.

Latvia also appears unique in that it compels health care providers to obtain the signatures of those who decline vaccination. Individuals have the right to refuse a vaccination, Perevosckovs says. But if they do so, health providers have a duty to explain the health consequences and if the patient hasn't been persuaded to change his mind, "the health care provider should draw up a refusal in writing which has to be confirmed with a signature by the person to be vaccinated."

Slovenia has one of the world's most aggressive and comprehensive vaccination programs. Its program is mandatory for nine designated diseases. Within the first three months of life, infants must be vaccinated for tuberculosis, tetanus, polio, pertussis, and *Haemophilus influenzae* type B. Within 18 months, vaccines are required for measles, mumps and rubella, and finally, before a child starts school, the child must be vaccinated for hepatitis B.

While a medical exemption request can be submitted to a committee, such an application for reasons of religion or conscience wouldn't be acceptable, and isn't allowed, says Alenka Kraigher, head of the communicable diseases and environmental health center at Slovenia's National Institute of Public Health.

Failure to comply results in a fine and compliance rates top 95%, Kraigher says, adding that for nonmandatory vac-

cines, such as the one for human papilloma virus, coverage is below 50%.

Kraigher also notes that Slovenia has a generous no-fault compensation program for those injured from vaccines. Canada and Russia are the only G8 nations without national no-fault compensation programs (www.cmaj.ca/lookup/doi/10.1503/cmaj.109-3805).

Still other countries appear to have much more modest, or disease-specific mandatory vaccination programs. Belgium, for example, has a mandatory vaccination policy for polio, dating back to 1967, which requires that all children be vaccinated for the disease before they reach the age of 18 months.

"When this policy was legislated it didn't have to be enforced because it was perceived as the state behaving as a good father for the population," says Marc Van Ranst, national flu coordinator and head of the vaccination working group at Belgium's Superior Health Council.

Although the vaccination environment is now more hostile, compliance rates remain high, Van Ranst says. "Ninety-nine percent of the population doesn't ask questions and gets vaccinated. Either they don't care or they agree with the policy."

Most of those who fail to comply are migrant Roma gypsies, while those who oppose mandatory vaccination typically are not prosecuted, he adds. "In practice, it's rarely prosecuted or

they're being let off with a slap on the wrist. ... There is really nobody who will go to jail for not having their children vaccinated."

The World Health Organization (WHO) has no official policy on mandatory vaccinations, Alison Brunier, communications officer for Immunizations, Vaccines and Biologicals at the WHO writes in an email. "While it is preferable that high community demand and acceptance make compulsory vaccination programmes unnecessary, WHO understands that some countries may wish to move in that direction when faced with declining vaccination rates and outbreaks of disease."

But WHO is "very interested in learning from the experience of countries who introduce compulsory vaccination in order to better understand the impact on immunization coverage and the strengths and weaknesses of such approaches," she adds. — Erin Walkinshaw, Ottawa, Ont.

CMAJ 2011. DOI:10.1503/cmaj.109-3993

Editor's note: Second of three-part series on mandatory vaccination

Part I: The Canadian picture
(www.cmaj.ca/lookup/doi/10.1503/cmaj.109-3992)