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FEATURE

Visualising childhood vaccination schedules across G8 countries

Peter Doshi and colleagues compare the approaches to routine childhood vaccination

Peter Doshi *associate editor, The BMJ* , Will Stahl-Timmins *data graphics designer, The BMJ*, José G Merino *US clinical research editor, The BMJ*, Carolyn Simpkins *clinical director, North America, BMJ*

The interactive infographic above presents childhood vaccination schedules across the G8 nations. By selecting and deselecting individual vaccines, readers can visually explore similarities and differences in official recommendations. Data are displayed in two graphs simultaneously. The top indicates the cumulative doses over time, while the bottom adds detail: which vaccines at what times.

The data present an overarching message of variations on a theme: substantial similarity but interesting differences. Some countries start vaccinating at birth, others after a month, and some wait longer.

We invite readers to comment on the similarities and whether the differences are meaningful or important. If so, to whom, and why? Are there lessons here for how vaccination policies are set and implemented? What research opportunities do you see? Tell us in a rapid response.

About our methods

We chose the G8 countries as a pre-existing set of countries that felt right in size—large enough to show a variety of approaches to vaccination but small enough to fit on a single screen. All are wealthy countries in which vaccination policies are less hampered by basic health infrastructure problems and may therefore share similar underlying priorities and challenges. We have included only vaccines that are recommended for all children. We have kept out the more complex recommendations for children that fall into particular risk groups. When countries recommend an age range (rather than a single time point) for the timing of a vaccine dose our infographic plots the earliest time; where we had information on ranges, we present it. Finally, we plotted the number of vaccination doses delivered. Thus the combination DTaP-IPV-Hib vaccine used in Canada counts as five doses despite being delivered in one injection. This allows for meaningful comparisons across countries that use different products, even if they recommend vaccination against the same diseases. Other technical notes regarding methods and data sources are contained in the infographic.

This is not the first infographic of its kind. The European Centre for Disease Control and Prevention already makes available a similar tool on its website.[1] But our selection of G8 countries adds four non-EU countries—Japan, Russia, Canada, and the US—with different vaccination histories, cultures, and policies. Our graphic also allows comparison of the overall schedules in all eight countries simultaneously.

Competing interests: We have read and understood BMJ policy on declaration of interests and declare PD receives research support from the American Association of Colleges of Pharmacy (AACP), and previously received research support from the UK National Institute for Health Research grant (HTA – 10/80/01 Update and amalgamation of two Cochrane Reviews: neuraminidase inhibitors for preventing and treating influenza in healthy adults and children: http://www.nets.nihr.ac.uk/projects/hta/108001). In 2012, the European Respiratory Society supported PD's travel to the society's annual congress in Vienna, where he gave an invited talk on oseltamivir.

1 European Centre for Disease Control and Prevention Vaccine schedule. http://vaccine-schedule.ecdc.europa.eu/Pages/Scheduler.aspx.

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Correspondence to: P Doshi pdoshi@bmj.com