Poliomyelitis: intensification of the global eradication initiative

Report by the Secretariat

1. In 2008, the Sixty-first World Health Assembly in resolution WHA61.1 requested the Director-General to develop a new strategy to reinvigorate the fight to eradicate poliomyelitis. The ensuing Global Polio Eradication Initiative Strategic Plan 2010–2012 was subsequently launched in June 2010 and, in keeping with the guidance from the Executive Board, an Independent Monitoring Board was established to monitor the situation by reference to the milestones in the Strategic Plan. This report provides an update, as at mid-February 2012, on progress towards — and challenges to reaching — the Strategic Plan’s milestones, summarizes the Independent Monitoring Board’s concerns regarding the risks to completing eradication, and proposes next steps for the Global Polio Eradication Initiative.

2. Cases of paralytic poliomyelitis due to wild polioviruses declined by 52% in 2011 compared with 2010 (649 cases compared with 1352 cases). Cases due to the serotype 1 wild poliovirus declined by 54% (582 cases compared with 1265), and cases due to the serotype 3 wild poliovirus declined by 23% (67 cases compared with 87 cases). Of the four countries with endemic transmission of wild poliovirus, India met its end-2011 milestone of stopping virus circulation, its most recent case having onset of paralysis on 13 January 2011. Of the four countries with “re-established” poliovirus transmission, South Sudan has not had a case since 27 June 2009. Angola had a substantial decrease in new cases in 2011 and may also have stopped transmission, with its most recent case having onset of paralysis on 7 July 2011. In Chad and the Democratic Republic of the Congo, intensive transmission in early 2011 declined substantially in the second half of the year, following corrective actions taken by both countries. Of eight countries with outbreaks of poliomyelitis due to new importations of wild poliovirus in 2011, all but one such outbreak, in Mali, were stopped within six months. As at mid-February 2012, three of these new outbreaks were ongoing, though for less than six months, in the Central African Republic (most recent case 8 December 2011), China (9 October 2011) and Niger (12 December 2011). One outbreak from 2010 persisted into 2011 and for more than 12 months on the border between Kenya (most recent case 30 July 2011) and Uganda.

3. By contrast, in Afghanistan, Nigeria and Pakistan, the other three countries with endemic transmission of wild poliovirus, there was a significant increase in new cases in 2011 compared with 2010, particularly in the second half of the year. Nigeria saw a 185% increase in cases, especially in

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1 Documents EB126/2010/REC/2, summary record of the thirteenth meeting, section 4A, and EB128/35 Add.1, section C.

2 Data available at www.polioeradication.org/Dataandmonitoring/Poliothisweek.aspx (accessed 20 March 2012). All case data are reported to WHO through national acute flaccid paralysis surveillance systems.
the northern states of Kano, Jigawa, Borno and Sokoto (62 cases compared with 21 cases for the same period in 2010, 44 of which are from the four northern states mentioned). Afghanistan and Pakistan experienced a 220% and 37% increase in cases, respectively (80 cases compared with 25 cases, and 198 cases compared with 144 cases, respectively). Furthermore, Nigeria and Pakistan were the only countries in the world with confirmed type 3 wild poliovirus circulation since September 2011. Nigeria is the only country in the world with re-established transmission of a type 2 circulating vaccine-derived poliovirus. In 2011, wild polioviruses originating in Nigeria and Pakistan were also associated with outbreaks in previously polio-free countries.

4. Since December 2010, the Independent Monitoring Board has met quarterly and provided recommendations to the heads of agency of the Global Polio Eradication Initiative’s spearheading partners and the Bill & Melinda Gates Foundation. In April 2011, the Independent Monitoring Board stated that “Completing the eradication of polio is a global health emergency”. In October 2011, the Independent Monitoring Board reaffirmed that assessment, but expressed conviction that “polio can – and must – be eradicated,” and highlighted issues at the global, cross-programme and country-specific levels that urgently needed to be addressed, especially “accountability and its enforcement at all levels of the programme”. In November 2011, the Strategic Advisory Group of Experts on immunization endorsed the findings of the Independent Monitoring Board, concluding unequivocally “that the risk of failure to finish global polio eradication constitutes a programmatic emergency of global proportions for public health and is not acceptable under any circumstances”. The World Health Organization Regional Committee for Africa in August 2011 adopted resolution AFR/RC61/R4, in which it urged Member States to declare the persistence of polio a national public health emergency. The Executive Board at its 130th session considered an earlier version of this report and adopted resolution EB130.R10 on 21 January 2012, declaring the completion of poliovirus eradication a programmatic emergency for global public health.

5. In response to the evolving polio epidemiology in 2011 and Executive Board resolution EB130.R10, the Governments of Nigeria and Pakistan developed or augmented their national emergency action plans for polio eradication, and the Head of Government in each country appointed a focal point to oversee national efforts and established a monitoring mechanism to hold local authorities accountable for the performance and quality of activities. The Global Polio Eradication Initiative intensified its extensive programme of work, initiated following the October 2011 Independent Monitoring Board report, to strengthen accountability processes, promote innovation, ensure critical real-time evaluation of eradication plans in key infected areas, deepen stakeholder engagement, and reduce outbreak risks. A Global Polio Emergency Action Plan 2012–2013 was developed to support Afghanistan, Nigeria and Pakistan in implementing corrective actions to achieve, by end-2012, the coverage levels needed to interrupt poliovirus transmission in each of the remaining infected areas. The plan draws heavily on lessons learnt in all infected areas, particularly India, in 2010–2011, on the recommendations of the Independent Monitoring Board, and on recent innovations for enhancing programme implementation and impact. The plan also commits partner agencies, particularly WHO and UNICEF, to deploy substantial additional surge support to enable strategy implementation in priority infected areas.

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2 Document EB130/19.
6. In its February 2012 report\(^1\), the Independent Monitoring Board highlighted that the emergency approach must be extended to front-line workers, especially in Pakistan and Nigeria which “represent the gravest risk to global eradication”. The Independent Monitoring Board stated that “An emergency approach involves considering every measure that can help. This should include, for example, the possibility of using the International Health Regulations to limit the potential spread from affected countries”. Already in the first quarter of 2012, however, an insufficiency of financing required some emergency eradication activities to be scaled back in 24 at-risk countries. The Global Polio Eradication Initiative continues to engage with the international development community to close the financing gap for 2012–2013 which, at February 2012, stood at US$ 1090 million against an overall budget of US$ 2230 million.

7. In line with the development of the Global Polio Emergency Action Plan 2012–2013, a new, more efficient medium-term strategy is being examined, which would combine the eradication of residual wild poliovirus transmission with the polio “endgame” strategy. The latter had been designed to deal with vaccine-derived polioviruses, but only after certification of wild poliovirus eradication. The new strategy is based on new diagnostic tests for vaccine-derived polioviruses, the availability of bivalent oral poliovirus vaccine, and new low-cost approaches for the use of inactivated poliovirus vaccine. The Strategic Advisory Group of Experts on immunization endorsed the central premise of the new strategy: in summary, the removal of Sabin polioviruses from immunization programmes should be phased, beginning with the particularly problematic Sabin type 2 poliovirus in the near term, followed by the remaining serotypes, after certification of wild poliovirus eradication globally.\(^2\) This approach could facilitate the eradication of the remaining wild poliovirus types 1 and 3 (by replacing all trivalent oral poliovirus vaccine with the more efficacious bivalent oral poliovirus vaccine) and allow action to be taken to control any new type 2 circulating vaccine-derived polioviruses during the period that global surveillance and response capacity is highest. Substantial planning is required for a globally synchronized switch from trivalent to bivalent oral poliovirus vaccine for routine immunization and, potentially, the introduction beforehand of one or more doses of inactivated poliovirus vaccine. In 2012, the Strategic Advisory Group of Experts on immunization will provide recommendations on the actual implementation of this strategy based on broad-based consultations across a number of work streams.

**ACTION BY THE HEALTH ASSEMBLY**

8. The Health Assembly is invited to adopt the resolution recommended by the Executive Board in resolution EB130.R10.

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\(^2\) In 2011, there were six outbreaks due to a circulating vaccine-derived poliovirus in seven countries; five were due to the type 2 serotype. Fifty-six of the 58 cases due to these circulating vaccine-derived polioviruses were caused by the type 2 serotype. Data are available at http://www.polioeradication.org/Dataandmonitoring/Poliothisweek/Circulatingvaccinederivedpoliovirus.aspx (accessed 20 March 2012).