
Poliomyelitis: intensification of the global eradication initiative

Report by the Secretariat

1. In 2012, the Sixty-fifth World Health Assembly in resolution WHA65.5 declared the completion of poliovirus eradication a programmatic emergency for global public health and requested the Director-General, *inter alia*, to undertake the development and rapid finalization of a comprehensive polio eradication and endgame strategy to the end of 2018. The present report gives details of progress made, and challenges experienced, in implementing the global and national emergency action plans against poliomyelitis, summarizes the new six-year polio eradication and endgame strategic plan 2013–2018,¹ and outlines the planning process for securing the broader legacy of the Global Polio Eradication Initiative.

IMPLEMENTATION OF EMERGENCY ACTION PLANS AGAINST POLIOMYELITIS

2. The Global Polio Emergency Action Plan 2012–2013 was launched on 24 May 2012, during the Sixty-fifth World Health Assembly, in support of national emergency action plans against poliomyelitis from the three remaining countries in which the disease is endemic, namely: Afghanistan, Nigeria and Pakistan. At the international level, the five core agencies working in partnership for the eradication of poliomyelitis have established the Polio Emergency Steering Committee to manage risks and guide operations. The Committee reports to the agency heads, who constitute the membership of the Polio Oversight Board, which meets on a quarterly basis. Emergency operations centres and/or procedures have been activated across the core partner agencies, and WHO recruited more than 2500 additional workers to support government efforts against poliomyelitis in areas of Afghanistan, Nigeria and Pakistan affected by the disease or where the outbreak risk was greatest. UNICEF engaged more than 2300 additional community mobilizers in these priority areas. On 27 September 2012, the United Nations Secretary-General hosted a high-level meeting on the poliomyelitis eradication emergency during the sixty-seventh session of the United Nations General Assembly. The aim of the meeting was to reinforce national and international commitment to achieving eradication and mobilizing the necessary financing. It was attended by the Heads of State of the three countries where the disease is endemic, the heads of the partner agencies, donors and other stakeholders.

¹ The working draft of the strategic plan, as approved by the Strategic Advisory Group of Experts on immunization, is available at <http://www.polioeradication.org>.

3. In each of the three countries mentioned above, the Head of State or Government has appointed a focal point to oversee the national effort to eradicate poliomyelitis and has engaged other sectors of government and public administration to support implementation of the national emergency action plan. In addition, in Nigeria and Pakistan, respectively, a Presidential task force and a Prime Ministerial task force have been established to assess progress and ensure the accountability of local authorities. New performance monitoring systems have been put in place (i) to track whether supplementary immunization activities using oral poliovirus vaccine were reaching the vaccination coverage thresholds required to interrupt transmission and (ii) to guide rapid corrective action. In Nigeria, the proportion of very-high-risk local government areas in which the estimated vaccine coverage reached the target threshold of 80% in 2012 increased from 5% in February to 34% in November. In Pakistan, the proportion of highest-risk districts achieving the target threshold of an estimated coverage rate of 95% in 2012 increased from 59% at the start of the year to a peak of 87% in July. In the 13 districts in southern Afghanistan at highest risk for persistent transmission of poliovirus, the number of children inaccessible during the oral poliovirus vaccine campaigns declined from more than 80 000 at the end of 2011 to some 26 000 by October 2012.

4. As a result of this emergency eradication effort, as at 14 November 2012 the numbers of both cases of poliomyelitis and countries experiencing cases were at their lowest-ever recorded levels. Globally, 181 cases had been reported, a 64% decline compared with the same period in 2011. Four countries reported cases in 2012 compared with 16 in 2011. In three of these countries – Chad, Pakistan and Afghanistan – case numbers declined by 95%, 65% and 42%, respectively, relative to 2011. In Nigeria, however, case numbers increased by 140% compared with the same period in 2011, despite the recent evidence of improving programme performance in the historically worst-performing areas. Of the two remaining serotypes of wild poliovirus (types 1 and 3), only 21 cases due to type 3 were reported – 18 in Nigeria and 3 in Pakistan.

5. The completion of wild poliovirus eradication continues to be jeopardized by an inconsistent rate of improvement in the quality and coverage of supplementary immunization activities in infected areas, as well as by weak routine immunization programmes in countries affected by poliovirus transmission and countries at highest risk of new importations. The increase in the number of cases of poliomyelitis in Nigeria is a matter of particular concern given the risk of renewed spread of wild polioviruses – both within the country itself and, from there, into West Africa, particularly Mali. In Pakistan, a series of security incidents targeting workers of the poliomyelitis eradication programme, and the suspension of oral poliovirus vaccine immunization activities since June 2012 in two agencies of the Federally Administered Tribal Areas, are threatening to slow progress. Federal and provincial elections in 2013 could also divert attention from the eradication programme. Weak management capacity and insecurity continue to complicate full strategy implementation in the highest-risk districts of southern Afghanistan. By the end of 2012, Afghanistan, Nigeria and Pakistan were all revising their national emergency action plans to address these risks as reflected in the global polio eradication and endgame strategic plan 2013–2018.

POLIO ERADICATION AND ENDGAME STRATEGIC PLAN 2013–2018

6. Between June and October 2012 WHO coordinated the development of a comprehensive polio eradication and endgame strategic plan 2013–2018, in consultation with countries affected by poliomyelitis, stakeholders, donors, vaccine manufacturers, regulatory agencies and a number of national and international advisory bodies for the eradication of poliomyelitis and routine immunization against the disease. On 6 November 2012, the Strategic Advisory Group of Experts on immunization endorsed the four major objectives of the strategic plan and the associated milestones, namely: the interruption of residual wild poliovirus transmission by the end of 2014; the withdrawal of the type 2 component of the trivalent oral poliovirus vaccine from routine immunization programmes

globally as soon as possible; the initiation of legacy planning for the Global Polio Eradication Initiative in 2013–2014; and the containment of wild poliovirus stocks and certification of wild poliovirus eradication by the end of 2018.

7. The new strategic plan introduces a number of major developments in planning for the eradication of poliomyelitis. First, the plan outlines a concrete six-year timeline and approach for the completion of the Global Polio Eradication Initiative, including the elimination of all paralytic poliomyelitis whether due to wild, vaccine-derived or Sabin-strain polioviruses. Secondly, in order to achieve global containment and certification, the geographical focus of the strategic plan, which is currently on poliomyelitis-affected and high-risk countries, is expanded to include the nearly 130 countries that use the trivalent oral poliovirus vaccine in national routine immunization programmes, and ultimately all countries. Thirdly, very high priority is given to raising routine immunization coverage rates by systematically applying the existing infrastructure and human resources of the global effort to eradicate poliomyelitis to this goal in the context of the Global Vaccine Action Plan and in collaboration with the GAVI Alliance. Finally, policy on routine vaccination against poliomyelitis is updated with the recommendation of the Strategic Advisory Group of Experts on immunization that all countries should introduce at least one dose of inactivated poliovirus vaccine. This policy is designed to mitigate the risks of poliovirus reintroduction or re-emergence following the withdrawal of the type 2 component of the oral poliovirus vaccine globally, and reduce the potential consequences of those risks.

8. In order to achieve the first objective of the strategic plan, authorities in Afghanistan, Nigeria and Pakistan are updating national emergency action plans for poliomyelitis eradication to incorporate innovations, best practices and lessons learnt in 2012. The areas covered by these improvements include programme oversight, monitoring and accountability, detailed planning for supplementary and routine immunization activities, data management, accessing and engaging underserved and mobile populations, and operating in insecure environments. Partner agencies will continue to support national emergency action plans by fully implementing and sustaining the necessary surge in technical support; assisting with the implementation of direct payment mechanisms; enhancing the development and application of processes for assessing in real-time the preparedness for supplementary immunization activities and the performance of those activities; refining plans for operations in insecure areas; and dealing with gaps in surveillance performance. An intensive schedule of supplementary immunization activities will continue to be implemented across the 30 countries assessed to be at highest risk of importations of poliovirus and outbreaks of poliomyelitis in the period 2013–2014.

9. The importance of withdrawing the type 2 component of oral poliovirus vaccine as soon as possible from routine immunization programmes globally was reinforced by the detection in 2012 of five outbreaks of poliomyelitis due to circulating type 2 vaccine-derived polioviruses. The outbreaks left 37 children paralysed in the following six countries: Chad, Democratic Republic of the Congo, Kenya, Nigeria, Pakistan and Somalia. Two of these outbreaks, in Nigeria and Somalia, involve the continuing transmission of a type 2 virus for a period exceeding 36 months. Interrupting the outbreak in central southern Somalia continues to be complicated by the ban on mass vaccination campaigns in areas controlled by Al-Shabaab militants.

10. In order to enhance the affordability and availability of inactivated poliovirus vaccine, a prerequisite for the eventual withdrawal of the type 2 component of the oral poliovirus vaccine, WHO and its partners have undertaken an intensive series of discussions with vaccine manufacturers and regulatory agencies. In response, one manufacturer of inactivated poliovirus vaccine has announced a substantial cut in the price of its existing product, reducing it to US\$ 1.15 per dose. Achieving a price substantially below US\$ 1 per dose in the near term will require the use of fractional dosing through

either intradermal delivery of one fifth of a full dose of inactivated poliovirus vaccine or intramuscular administration of a product containing an adjuvant. Three manufacturers have agreed to pursue licensure for intradermal delivery of their inactivated poliovirus vaccine for use in emergency situations, and in one case for routine immunization, with a target price US\$ 0.50 per dose and a development timeline of 24–36 months. Two manufacturers have agreed to develop an inactivated poliovirus vaccine containing an adjuvant, with a target price of between US\$ 0.50 and US\$ 0.75 per dose and a timeline of 36–48 months, contingent in one case upon substantial external support. A third manufacturer is considering the fast-track development of a similar product. Although two manufacturers are planning to develop a low-dose inactivated poliovirus vaccine as part of their respective hexavalent products, neither product will be available during the period of the new strategic plan. WHO continues to support the transfer to developing countries of new production technology for inactivated poliovirus vaccine using Sabin-strain polioviruses. It is expected that such Sabin-strain inactivated poliovirus vaccines will be available during the period of the new strategic plan; however, additional development work is needed to finalize timelines and expected pricing. In parallel to these and other development efforts, and as recommended by the Scientific Advisory Group of Experts on immunization, WHO, UNICEF, the GAVI Alliance and the Bill & Melinda Gates Foundation are establishing a supply and funding strategy for timely introduction of inactivated poliovirus vaccine using existing full-dose products for a transition period if needed.

11. Legacy planning for the Global Polio Eradication Initiative will have two main goals: to mainstream into existing public health programmes the poliomyelitis-related work on routine immunization activities, disease surveillance and response, and stockpiling and containment; and to ensure that the knowledge, capacities, processes and assets created by the programme will continue to be of broader benefit to other public health programmes. In 2013, an extensive consultation process on legacy planning will begin with Member States, stakeholders, donors, and implementing partners. The outcomes of this consultative process will be brought to the Health Assembly through the regional committees. The draft global action plan to minimize poliovirus facility-associated risk after eradication of wild polioviruses and cessation of routine oral poliovirus vaccine use will be revised and finalized by 2014 in the context of the new strategic plan.

12. The budget for the polio eradication and endgame strategic plan 2013–2018 is US\$ 5500 million, with costs peaking at US\$ 1100 million in 2014 then declining annually to US\$ 773 million in 2018. The greatest expenditure concerns supplementary and other immunization activities, including the introduction of inactivated poliovirus vaccine (44% of the total budget), followed by core functions and infrastructure (36%), surveillance and outbreak response capacity (18%) and containment and certification activities (2%). Maintaining the current annual levels of international contributions and national expenditures on poliomyelitis eradication would secure about US\$ 3100 million of the overall budget. A cross-agency resource mobilization task force has been established to develop and implement a financing plan to maintain current financing and tackle the residual financing gap. The most urgent priority is to close the financing gap for eradication activities through to the end of 2013. As at 14 November 2012 the gap was US\$ 700 million, against which firm prospects totalled about US\$ 500 million.

ACTION BY THE EXECUTIVE BOARD

13. The Board is invited to note the report.

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