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Polio transition planning

Report by the Director-General

1. The Seventieth World Health Assembly in May 2017 adopted decision WHA70(9) on poliomyelitis: polio transition planning, in which the Director-General was requested, inter alia, to develop a strategic action plan on polio transition by the end of 2017, to be submitted for consideration by the Seventy-first World Health Assembly, through the Executive Board at its 142nd session. The decision called for the identification of the capacities and assets, especially at the country level, that are required to maintain a polio-free world after eradication and to sustain progress in other programmatic areas that might be negatively impacted by the scaling-down of the polio eradication infrastructure. A detailed costing of the capacities and assets and the financing that might be required to integrate some of the polio-funded assets into other programmatic areas was also requested.

2. This report should be considered as work in progress, which provides the key components of a strategic action plan that will be finalized by the Seventy-first World Health Assembly. It is aligned with the draft thirteenth general programme of work 2019−2023 and aims to respond partially to the requests made by in decision WHA70(9). In addition, it provides updated information on the human resources and budget planning associated with polio transition planning. The annexes provide detailed information and web links on ongoing country-level processes that have an impact on polio transition.

POLIO TRANSITION: A NEW VISION

3. Management of polio transition planning was initially based around mitigating the human resource-related, financial, programmatic and country capacity risks faced by the Organization owing to the scaling-down and eventual closure of the Global Polio Eradication Initiative. This approach focused on reduction of the liabilities, but the drafting of the thirteenth general programme of work provides an opportunity, and a new vision, for polio transition planning efforts to support the three strategic priorities that can maximize WHO's contribution to achieving the Sustainable Development Goals.

4. To support the first strategic priority of ensuring healthy lives and promoting well-being for all, existing polio assets at the country level can support countries to achieve the goal of leaving no one behind in priority areas such as women's, children's and adolescents' health, communicable diseases and immunization activities, and especially to reduce inequalities in countries with relatively weak health infrastructure. In many polio transition countries, polio staff members are already contributing to other programmatic areas, including reproductive, maternal, newborn and child health, and other communicable diseases.

5. To contribute to the second strategic priority of supporting countries to strengthen health systems and to progress towards universal health coverage, polio assets and functions at the country

level will be critical to ensuring access to high-quality essential health care services and medicines, including vaccines, especially in fragile settings.

6. To support WHO's third strategic priority of keeping the world safe from epidemics and other health emergencies, and of ensuring that populations affected by emergencies have rapid access to essential life-saving health services, the crucial functions of the polio programme in many fragile and conflict-affected countries, including coordination, immunization, surveillance, laboratory services, response, and risk communication, will be essential. The country-level capacities of the polio programme will also help to enhance the progress made by all countries towards strengthening core capacities under the International Health Regulations (2005). The knowledge and experience of polio staff members in addressing the health-related challenges associated with population movements, including flows of refugees, migrants and internally displaced populations, as well as cross-border surveillance and immunization activities will also be critical to achieve this strategic goal.

7. The draft thirteenth general programme of work is built on placing countries at the centre of WHO's work. Successful implementation of the general programme of work therefore depends on matching closely tailored efforts to different country contexts. The presence of significant polio assets in the most highly vulnerable, fragile and conflict-affected countries should therefore be leveraged to help WHO to provide operational support in these Member States, with the full assistance of the international development community. In the second tier of less vulnerable polio transition countries, WHO will provide high-quality technical assistance to ensure that polio capacities fully support country priorities, while also meeting the need to sustain polio-free status after eradication. In these countries, there will be a graduated process of scaling down financing and technical support, with strong expectations that national governments will absorb the capacities and the costs of these critical assets over the medium term, as specified in their transition plans. In third tier polio transition countries, those with much stronger health systems, a sufficiently large trained workforce and stronger economic capabilities, WHO will focus on strategic advisory services, while expecting these governments to fully absorb and fund the polio assets and capacities needed to meet their health priorities in the short term. WHO will provide technical assistance to enhance the mobilization of domestic and external financing, in order to support all three tiers of polio transition countries and to ensure sustainability.

DEVELOPMENT OF A STRATEGIC ACTION PLAN ON POLIO TRANSITION

8. This broader vision for polio transition will help to allay Member States' concerns about the need to sustain progress in other key programmatic areas, such as: disease surveillance; immunization; health systems strengthening; and early warning, emergency and outbreak response, including the strengthening and maintenance of core capacities under the International Health Regulations (2005). It will also help to sustain the crucial polio functions that will be needed to ensure a polio-free world after eradication. Lastly, it will enable more coordinated planning for longer-term financing and budgeting in the context of programme budgets for 2020–2021 and beyond.

9. Detailed discussions across the Secretariat, including regional and country offices, have identified an initial set of programmatic priorities and streams of work that need to be aligned for polio transition. The focus of the strategic action plan will be on how these priorities and streams of work will be linked to the vision of the draft thirteenth general programme of work and WHO's role in covering the gaps. This report aims to present the key elements of the strategic action plan, for submission to the Seventy-first World Health Assembly together with an implementation and monitoring framework.

ELEMENTS OF THE STRATEGIC ACTION PLAN

National polio transition plans aligned with the scaling-down of Global Polio Eradication Initiative resources[1]

10. Polio programme resources at the country level include both "assets" and "functions". Assets include all the human resources and physical infrastructure funded and established by the polio programme in that country, at both national and subnational levels. Polio programme functions are the systems, processes and activities that these assets carry out. Collecting detailed information on polio assets and functions at national and subnational levels has been an essential step in country transition planning. The data generated from this mapping exercise provide a baseline of the size, structure, location and activities of the polio programme in a specific country, along with an estimated cost of sustaining these assets.

11. The detailed asset mapping exercise demonstrates that 60–90% of polio-funded personnel contribute to broader immunization, service delivery, surveillance, management and operations. Surveillance units are essential components of these assets. Consisting of a surveillance medical officer, an administrative assistant and a driver, these units conduct active cased-based surveillance for both acute flaccid paralysis and other vaccine-preventable diseases (such as measles, rubella, Japanese encephalitis and neonatal tetanus). They are often the main resource that the country draws upon to respond to major disease outbreaks, natural disasters and other emergencies (cholera, malaria and yellow fever outbreaks in Angola and earthquake in Nepal, for example).

12. Even though human resources are vital polio-funded assets on the ground, documentation has revealed that polio-funded physical infrastructure and systems/processes are equally important. In the absence of adequate government infrastructure (including transportation and communications equipment, and adequate data-processing capacity), immunization, broader disease surveillance and outbreak response activities in countries are largely dependent on polio-funded WHO physical assets and equipment. In many countries (such as Chad, the Democratic Republic of the Congo, Ethiopia and South Sudan), access to most hard-to-reach areas is only possible thanks to WHO's fleet of polio-funded 4 x 4 vehicles. In some cases (Chad and Ethiopia, for example), WHO office space at the national or subnational level is partially or fully funded by polio resources. A snapshot of the detailed asset mapping exercise conducted in 14 priority countries, with a functional and geographical breakdown, is available for review on the website of the Global Polio Eradication Initiative.[2]

13. Most of the resources provided by the Global Polio Eradication Initiative go to the country level, and they support functions that go far beyond polio eradication. The Initiative has been supporting polio transition planning efforts in 16 priority countries that account for more than 90% of the assets funded by it.[3] In order to mitigate the negative impact of the planned decrease of Global Polio Eradication Initiative resources, a process has been set in motion to develop national transition

[1] See Annex 1, Summary Global Polio Eradication Initiative budget scale-down figures for WHO country offices in non-endemic countries.

[2] Country transition planning (http://polioeradication.org/polio-today/preparing-for-a-polio-free-world/transition-planning/country-transition-planning/, accessed 21 December 2017).

[3] Seven countries in the African Region (Angola, Cameroon, Chad, the Democratic Republic of the Congo, Ethiopia, Nigeria, South Sudan), five in the South-East Asia Region (Bangladesh, India, Indonesia, Myanmar, Nepal) and four in the Eastern Mediterranean Region (Afghanistan, Pakistan, Somalia, Sudan).

plans in these countries,[1] under the leadership of national governments, with support from WHO and UNICEF regional and country offices. The Global Polio Eradication Initiative, through its Transition Management Group, has been supporting the planning process with guidelines,[2] technical assistance, communications and advocacy support, and tracking progress through a series of milestones.[3]

14. As of December 2017, eight countries[4] have costed draft transition plans. Most of these plans are early drafts, with initial costings. The target date for all 14 countries (except Afghanistan and Pakistan, which will officially start planning when polio transmission has been interrupted) to finalize their costed draft plans by the end of 2017 will not be met.

15. The countries will further develop these plans over the next six months with broader stakeholder input. However, the early drafts and the planning process already clearly highlight the challenges in mainstreaming polio-funded assets and functions into existing country health structures. Almost all the draft plans have a longer-term country capacity-building and financing strategy that includes provision for domestic funding, but in the short or medium term (2–5 years) the plans rely heavily on external technical and financial support.

16. All countries in the South-East Asia Region are making progress and have developed transition plans in close coordination with their national governments, adopting a country-tailored approach. Progress has been slow in highly fragile countries (Somalia, for example), which face multiple challenges, including limited planning and absorption capacity, lack of sustainable funding options and competing priorities. Draft plans from other fragile countries (such as Chad, the Democratic Republic of the Congo, and South Sudan) reveal the risks related to implementation and sustainability. In the absence of much stronger national ownership and significant external support, it is highly likely that some of these costed national plans will remain unexecuted.

17. Given the countries' immediate lack of capacity to mainstream polio-funded assets and functions, country plans reflect an expectation that WHO will continue its operational support in key areas such as immunization, integrated disease surveillance, primary health care delivery and emergency response. In fragile countries, this support is expected to be more comprehensive (including systems strengthening elements) and for a much longer duration. The details of draft country plans, with a specific focus on how they match polio assets with national priorities and funding options under consideration, are presented in Annex 2.

[1] At the global level, the Global Polio Eradication Initiative tracks progress and provides support to only 16 countries, on which most of its resources are concentrated. However, it is important to note that the guidelines issued by the Initiative in the context of polio legacy planning encourage all countries receiving funding from the Global Polio Eradication Initiative to develop transition plans. In fact, the Regional Office for Africa, through its regional initiatives and structures, has prioritized all polio-funded countries in the Region. Similarly, the Regional Office for the Eastern Mediterranean is developing a more holistic regional approach, looking also at other fragile countries in the Region (such as Iraq, the Syrian Arab Republic and Yemen).

[2] Global Polio Eradication Initiative. Polio legacy planning: guidelines for preparing a transition plan. Geneva; 2015 (http://polioeradication.org/wp-content/uploads/2016/07/TransitionGuidelinesForPolioLegacy.pdf, accessed 21 December 2017).

[3] Milestones: (1) raising awareness, (2) establishing in-country coordination, (3) mapping assets, (4) mapping country priorities, (5) establishing strategies to match polio assets with national priorities, (6) developing a draft costed transition plan, and (7) finalizing the transition plan, including funding commitments and an execution plan.

[4] Bangladesh, Cameroon, Chad, the Democratic Republic of the Congo, India, Indonesia, Myanmar, and Nepal.

Sustaining a polio-free world after eradication

The draft post-certification strategy

18. As the world moves towards certification of the eradication of wild poliovirus, the Global Polio Eradication Initiative has started a process to define the technical standards and guidance for the essential functions required to sustain a polio-free world. This guidance can be found in the draft post-certification strategy.[1]

19. Implementation of the post-certification strategy will require: (a) planning by health and finance ministries, which will need to absorb or continue to support the three goals set out below (paragraph 23); (b) internal planning by organizations (current partners of the Global Polio Eradication Initiative, including WHO and UNICEF, and other organizations not currently engaged in polio eradication efforts) that will support these functions and activities; and (c) planning by new partners and health initiatives beyond the polio partnership for how they will begin to support activities in the post-certification world.

20. The main criteria set by the Global Commission on the Certification of Eradication as prerequisites for the global certification of polio eradication are to show the absence of wild poliovirus, isolated from cases of acute flaccid paralysis (suspect polio), healthy individuals or environmental samples, in all WHO regions for a period of at least three years in the presence of high-quality, certification-standard surveillance.[2] A process will also be undertaken, with the Global Commission on the Certification of Eradication and the Strategic Advisory Group of Experts on immunization, to determine the criteria and methodology for validating the absence of vaccine-derived poliovirus after global withdrawal of oral polio vaccine (OPV). Some polio-essential functions and capacities therefore need to be maintained in order to complete the process of certification of polio eradication, and also to ensure that a polio-free world is sustained after certification.

21. Especially at the country level, a set of capacities and assets will need to be maintained to sustain a polio-free world (Annex 3). The risks are higher in some of the world's poorest countries if the transition is not well planned and effectively implemented. Managing these risks will require leadership from stakeholders outside the Global Polio Eradication Initiative.

22. The post-certification strategy therefore has a strong focus on risk mitigation, and threats of re-emergence of the virus after global certification are considered in three categories: (a) continued use of OPV; (b) unsafe handling of any poliovirus; and (c) undetected transmission. The strategy outlines how to address, reduce, mitigate and, where possible, eliminate these risks.

23. The following three goals have been identified to mitigate the current and future risks to maintaining a polio-free world:

> **Goal 1. Contain polioviruses.** The objective of the first goal is to achieve and sustain containment of polioviruses in laboratories and vaccine manufacturers' and other facilities. The

[1] Polio post-certification strategy (http://polioeradication.org/polio-today/preparing-for-a-polio-free-world/transition-planning/polio-post-certification-strategy, accessed 21 December 2017).

[2] For the definition of eradication as the interruption of wild poliovirus transmission, see Smith J, Leke R, Adams A, Tangermann RH. Certification of polio eradication: process and lessons learned. Bull World Health Organ. 2004; 82:24-30 (http://www.who.int/bulletin/volumes/82/1/24-30.pdf, accessed 21 December 2017).

focus will initially be on reducing the number of facilities storing poliovirus and on implementing and monitoring compliance with containment requirements, with appropriate safeguards.

Goal 2. Protect populations. The second goal aims to protect populations both in the immediate term from vaccine-associated paralytic poliomyelitis and vaccine-derived poliovirus, by preparing and coordinating the global withdrawal of bivalent OPV, and in the long term from any poliovirus re-emergence, by providing access to safe, effective vaccines.

Goal 3. Detect and respond to a polio event. The focus of the third goal is to detect promptly any poliovirus in a human being or in the environment through a sensitive surveillance system and to maintain adequate capacity and resources to effectively contain or respond to a polio event.

24. As decided by the Polio Oversight Board at its meeting in October 2017,[1] the Global Polio Eradication Initiative partnership will focus on defining the technical functions required after certification and will mobilize funding for the activities to be implemented until cessation of the use of bivalent OPV, which is planned for one year after certification.

25. The financial resources required for these critical polio functions will depend on how the future "owners" will determine the organization and management of the goals set out in the post-certification strategy. The Global Polio Eradication Initiative will provide cost estimates for the activities from certification to withdrawal of bivalent OPV. In addition, a separate financial model with high-level cost estimates for the longer-term period after withdrawal of bivalent OPV – which will need to make assumptions concerning additional information and key decisions that are not known today – will be developed.

26. The draft post-certification strategy proposes that implementation of the strategy and operationalization of pledged funding through cessation of bivalent OPV and beyond will be the responsibility of the future owners of the functions laid out in this document. The transition or "hand-off" of the essential functions described in the three post-certification strategy goals, as well as governance, management and reporting activities, must begin well before the dissolution of the partnership.[2] It is therefore critical to identify the future owners of these functions and activities as soon as possible, so that an assessment can be made regarding the capacity, capability and change effort required for them to be successful.

27. Ownership and financial resources from national governments will be key factors for achieving the three goals of the post-certification strategy to sustain a polio-free world. In many fragile countries, WHO will have a key role to play in implementing the strategy. Within WHO, programmatic areas that would most likely be the owners of these essential polio functions would include Immunization and Health Emergencies. The business models initiated by these two programmatic areas to strengthen country capacity will have to fully consider the implications of polio transition planning and incorporate the guidance given in the post-certification strategy.

[1] See minutes of the meeting of the Polio Oversight Board, 2 October 2017 (available at http://polioeradication.org/wp-content/uploads/2016/07/pob-meeting-minutes-02102017.pdf, accessed 21 December 2017).

[2] See minutes of the meeting of the Polio Oversight Board, 22 April 2017 (available at http://polioeradication.org/wp-content/uploads/2017/06/POB_Minutes_Mtg20170422.pdf, accessed 21 December 2017).

Strengthening immunization

28. The Global Vaccine Action Plan has set ambitious targets to improve access to immunization and tackle vaccine-preventable diseases. With the Action Plan's 2020 target date approaching, accelerated efforts are required to improve access to lifesaving vaccines. Development partners' capacity to support these efforts will become even more critical.

29. Given that nine of the 16 priority countries for polio transition are in Africa,[1] the phasing-out of polio resources presents serious risks to the immunization systems of these countries and WHO's capacity to support them.

30. In order to mitigate this risk, the WHO regional offices for Africa and the Eastern Mediterranean are developing a business case to mobilize political commitment and financial resources to continue supporting all 54 Member States on the African continent in fully achieving their immunization goals. This business case will be aligned with the need to transform the scope and timing of the Secretariat' support to Member States, based on the maturity of their health systems and the vision of the draft thirteenth general programme of work, in order to help them to achieve the health-related Sustainable Development Goals.

31. The business case proposes that, in order to strengthen access to immunization, countries will have to progress across six key components of immunization systems: programme management and financing; immunization service delivery and introduction of new vaccines; disease surveillance and management of outbreaks of vaccine-preventable diseases; data management and analytics; vaccine quality, safety and regulation; and community engagement.

32. A four-tier WHO immunization "maturity grid" has been established across the six key components, to help to identify the main gaps and determine the type of support that African countries will need from the Secretariat to address those gaps. To support African countries in achieving the desired level of maturity in the six key immunization components, seven key functions have been identified, in order to provide tailored support based on the country's maturity model.[2]

33. In the past two decades, surveillance of vaccine-preventable diseases in the African Region has been heavily supported by funding from the Global Polio Eradication Initiative. The closing of the Initiative presents important risks for the vaccine-preventable disease surveillance network in the African Region, especially as alternative funding streams to support such surveillance have not been identified. With some countries in the Region simultaneously transitioning out of support from The GAVI Alliance and the Global Polio Eradication Initiative or soon to be no longer eligible for support from The GAVI Alliance, funding becomes an even bigger challenge.

34. It is therefore imperative that a costed comprehensive vaccine-preventable disease surveillance model is developed that highlights the investment needed to maintain a sensitive and effective

[1] Angola, Cameroon, Chad, the Democratic Republic of the Congo, Ethiopia, Nigeria, Somalia, South Sudan and Sudan.

[2] The seven key functions identified include: (1) establish norms and standards; (2) develop evidence-based policies and guidance; (3) monitor and address the situation of vaccine-preventable diseases and assess progress towards targets; (4) engage and advocate with governments and key partners; (5) provide technical support and build capacities; (6) provide material and equipment; and (7) implement field operations. The business model focuses on normative and technical support, with field operations being implemented by governments or non-State actors.

surveillance system and to ensure a rapid response to new and existing threats to public health posed by vaccine-preventable diseases in the post-polio eradication era.

35. In the South-East Asia Region, collaboration with national governments and partners to articulate and realign programmatic priorities using polio resources is aimed at supporting immunization activities, with measles elimination and rubella control, improvements in routine immunization coverage and the introduction of new vaccines as the key priorities.

Strengthening emergency preparedness and response

36. Of the 16 priority countries for polio transition planning, six are classified by the WHO Health Emergencies Programme as "Priority 1" for increased country capacitation, and five are categorized as "Priority 2" (see Annex 6).

37. The WHO Health Emergencies Programme's proposed country business model will be centred on: detailed country-by-country analysis of the current WHO country office capacity; and calculating the additional capacity needed for WHO's core functions as an operational agency in emergencies. Existing polio-funded capacities will also be mapped out in these country business models.

38. Country reviews have identified the need for adjustments to the WHO Health Emergencies Programme's country business model, including the need to further strengthen core laboratory, health systems, staff safety and security capacities, as well as to include field coordinator positions in key subnational hubs. In addition, there is a need to continue the functions related to the Expanded Programme on Immunization, disease surveillance and operational support currently maintained through WHO's programmes on immunization, vaccines and biologicals and on polio.

39. These capacities will enable WHO to be fit for purpose, particularly in fragile settings. Following the consolidation of core technical and operational positions in the priority countries, which will incorporate some polio functions and capacities, a business case will need to be developed to ensure sustained financing.

40. Opportunities for synergies between polio transition planning and the WHO Health Emergencies Programme's capacity-building plans need to be actively pursued, with the development of a systematic approach to reassigning polio capacities and functions to core Programme positions in priority countries. The long-term sustainability of this model depends on new multiyear contributions to WHO's work in emergencies.

Other elements of the strategic action plan contributing to achievement of the Sustainable Development Goals and universal health coverage

41. The draft thirteenth general programme of work puts countries at the centre of WHO's programming, providing a valuable opportunity to transition polio-funded capacities and assets in order to support country health priorities and to help to strengthen health systems, with the aim of achieving the Sustainable Development Goals and universal health coverage, as reflected in the vision

document of the international partnership UHC2030.[1] The Strategic Plan of Action will explore synergies and efficiency gains between the polio transition process and other existing strategies and ongoing Organization-wide change processes, as highlighted below.

WHO country cooperation strategies

42. A WHO Country Cooperation Strategy supports a country's national health policy, strategy and plan.[2] It is the strategic basis for elaboration of the biennial country workplan, and the main instrument for harmonizing WHO's cooperation in countries with that of other organizations in the United Nations system (through the United Nations Development Assistance Framework) and of development partners. The timeframe is flexible, in order to align with national planning, budgeting and resource allocation cycles (generally 4–6 years).

43. Country cooperation strategies provide a structure to systematically review countries' health priorities and identify areas where polio assets and capacities in polio transition priority countries can be repurposed to support these priorities, as well as to contribute to the broader goals of the draft thirteenth general programme of work, especially the achievement of the Sustainable Development Goals.

44. The key priorities identified by the 16 polio transition priority countries in their country cooperation strategies, as part of their mid-term strategic vision, are set out in Annex 4. Nearly all these priorities are aligned with those identified in national polio transition plans. The development of the Organization's Programme budget 2018–2019 was based on these priorities in the country cooperation strategies, which can guide the reallocation of resources from the polio programme to other programme areas.

Strengthening country core capacities for full implementation of the International Health Regulations (2005)

45. National implementation of the International Health Regulations (2005) is another crucial process that can incorporate the transition of polio assets and capacities in order to strengthen country health systems.

46. After nearly a decade of implementation of the International Health Regulations (2005) and from the experience gained in the management of public health emergencies of international concern, including the detection of wild and vaccine-derived poliovirus transmission and the outbreak of Ebola virus disease in West Africa, many lessons have been identified. Some of these lessons can be taken into account through the integration of polio assets and functions into national health systems. In its report to the Sixty-ninth World Health Assembly,[3] the Review Committee on the Role of the International Health Regulations (2005) in the Ebola Outbreak and Response, in

[1] Healthy systems for universal health coverage – a joint vision for healthy lives. Geneva: World Health Organization and International Bank for Reconstruction and Development/The World Bank; 2017 (https://www.uhc2030.org/fileadmin/uploads/uhc2030/Documents/About_UHC2030/mgt_arrangemts___docs/UHC2030_Official_documents/UHC2030_vision_paper_WEB2.pdf, accessed 16 December 2017).

[2] Country Cooperation Strategy Guide 2016. Geneva: World Health Organization; 2016 (http://apps.who.int/iris/bitstream/10665/251734/1/WHO-CCU-16.04-eng.pdf, accessed 16 December 2017).

[3] See document A69/21.

recommendation 10.2, gave clear guidance to governments in polio transition countries to fully leverage existing polio assets and capacities to assist in the effective implementation of core capacities under the International Health Regulations (2005).

47. Some observations by the Review Committee also highlight the need for laboratory services and surveillance systems to be better linked, in order to improve integrated surveillance. In this regard, there is significant value in using the existing polio-funded diagnostic capacity of national and intermediate-level laboratories, and of polio-funded surveillance networks at subregional, national and community levels. In addition, polio assets and functions related to data management, both in laboratories and surveillance, can be leveraged to assist countries in implementation of the International Health Regulations (2005).

48. The polio programme has significant experience in community-based surveillance, particularly at local or district level, and future capacity-building initiatives in the context of the International Health Regulations (2005) should therefore learn from or use polio capacities to target and engage communities at all levels. The core capacity needs for implementation of the International Health Regulations (2005) have to be integrated in national health and government planning cycles through, for example, the Country Cooperation Strategy and national polio transition plans, so that polio assets and capacities can contribute to countries' implementation of the Regulations.

49. Implementation of the International Health Regulations (2005) is monitored through 13 core capacity indicators.[1] Information on the status of implementation of core capacities and Joint External Evaluation scoring is available for all countries,[2] and data for polio transition countries are presented in Annex 5. Review of the average value of the 13 core capacity indicators in the 16 polio transition countries reveals a critical need to strengthen capacities in these countries. The subset of the core capacity indicators that is arguably more relevant for the polio post-certification period (coordination, surveillance, response, preparedness, risk communication, human resources and laboratories) also highlights the opportunities to use existing polio capacities to redress weaknesses in countries' health systems. The Joint External Evaluation reports that have been completed so far highlight the key role of the polio infrastructure and resources in functional capacity related to the International Health Regulations (2005). They should be clearly highlighted in national emergency plans drawn up following joint external evaluations.

WHO transformation agenda: functional review of country office capacity in the African Region

50. The Regional Office for Africa has embarked on a transformation agenda for the period 2015–2020.[3] This ambitious plan will change the way in which the WHO Secretariat provides support in the Region. In this context, there is a demand to see a responsive WHO that is appropriately resourced to strengthen health systems, coordinate disease prevention and control, and support a robust health security and emergency programme. Against this background, the second phase of the

[1] The 13 core capacities are: legislation, coordination, surveillance, response, preparedness, risk communication, human resources, laboratories, points of entry, zoonotic events, food safety, chemical events, and radiation emergencies.

[2] International Health Regulations (2005) Monitoring Framework – country profiles (http://apps.who.int/gho/tableau-public/tpc-frame.jsp?id=1100, accessed 21 December 2017).

[3] WHO. The transformation agenda of the World Health Organization Secretariat in the African Region 2015–2020. Brazzaville: World Health Organization Regional Office for Africa; 2015 (http://www.afro.who.int/sites/default/files/pdf/generic/Transformation_agenda_english.pdf, accessed 21 December 2017).

functional review is being rolled out in 2017 and focuses on the WHO country offices in the African Region. The Regional Office has concluded the functional review in 13 countries, including three priority countries for polio transition (the Democratic Republic of the Congo, Ethiopia and South Sudan).

51. The purpose of the functional reviews of country offices is to ensure that the Organization has adequate workforces and budgets in order to support the host countries' health priorities. The reviews include evaluations of country health priorities, as set out in the Country Cooperation Strategy, and of WHO workplans and budgets, in an effort to ensure alignment of the workforce with national priorities.

52. Country offices are well aware that the polio programme is being reduced in size, that funding will stop after 2019, and that the programme will ultimately be phased out. But they also acknowledge that there are many polio-funded positions and related functions that can be beneficial for the effective implementation of other programmatic areas, and to strengthen the countries' capacity to implement the International Health Regulations (2005). Such positions and functions include:

- surveillance officers, who can also be used for the WHO Health Emergencies Programme, as well as for routine immunization and capacity-building at the local level;
- data managers, who can support work on national health information systems (as part of health systems strengthening);
- logistics and information technology, which can support WHO Health Emergencies Programme's operations, including through the use of information technology (global positioning system) in mapping cases during outbreaks;
- programme support staff (such as drivers) in surveillance and supplementary and routine immunization activities, among others;
- programme management and resource mobilization officers, who can support Office-wide functions as well as governments' domestic resource mobilization efforts.

53. These existing polio positions, and their need for integration into other programme areas, will be considered in the development of a minimum staffing structure for the country based on size, as well as a needs-based and prevalence-based staffing requirement that will supplement the minimum structure. In addition, the target staffing structure in a WHO country office will include both fixed and variable staffing – based on the minimum requirements and supplementary requirements.

54. The outcome is to have WHO's operations capacity aligned with host countries' health situation, needs and priorities. This will require changes to and addition and abolition of staff positions.

55. Close coordination with the Global Polio Eradication Initiative, and careful review of the draft post-certification strategy and its estimated staffing needs in each country, will be critical to ensure that the polio-free status of a country is sustained and that the most critical polio functions are integrated either into other programme areas supported by WHO or into the national health system.

UPDATE ON HUMAN RESOURCES AND BUDGET PLANNING

Human resources

56. The human resources teams in WHO headquarters and regional offices are working closely to actively manage positions throughout the programme and at all locations, aligned with the reduced budgets from the Global Polio Eradication Initiative for the period 2017–2019. The Secretariat is continuing to track changes in polio programme staffing through a dedicated database of polio human resources developed for this purpose in 2017.

57. Priority is being given to maintaining the workforce required to support Member States in ensuring the interruption of transmission, responding to outbreaks and conducting surveillance. In non-endemic and lower-risk countries, positions are being retained in order to ensure adequate capacity for ongoing surveillance, including in laboratories, while less essential functions are phased out. All vacancies are scrutinized and less critical positions are discontinued.

58. As shown in the table below, the number of filled positions has declined slightly since the May 2017 report, from 1080 to 1037, and by 7% since 2016, as the programme has been scaled down in lower-risk, non-endemic countries and at WHO headquarters. Most changes occur at the start of the year and biennium. Figures for WHO staff members in country offices to be funded by the polio programme in 2017 and 2018 are included in Annex 7.

Table. Summary of polio positions by major office (2016–2018)

Major office	2016	May 2017	January 2018	Change since 2016
Headquarters	77	76	72	-6%
Regional Office for Africa	826	799	769	-7%
Regional Office for South-East Asia	39	39	29	-26%
Regional Office for Europe	9	8	6	-33%
Regional Office for the Eastern Mediterranean	155	152	156	+1%
Regional Office for the Western Pacific	6	6	5	-17%
Total	1 112	1 080	1 037	-7%

59. A contingency fund has been established in WHO to cover the terminal indemnities and liabilities associated with the separation of staff when polio eradication is certified and the Global Polio Eradication Initiative disbands. The cost of paying terminal liabilities to staff who do not find employment with another WHO programme when the programme ends has been estimated at US$ 55 million. (This projected liability will be recalculated and reported to the Seventy-first World Health Assembly in May 2018.) At the end of 2017, the sum of US$ 50 million will have been set aside in the indemnity fund. Moreover, in order to remove any disincentive for other programmes to recruit polio staff members, the Secretariat has agreed that, for polio staff who are employed by other WHO programme areas, the indemnity fund will continue to cover any terminal liability at a pro-rated level between the polio fund and the new programme. This will remain a possibility for up to five years after the date of their transfer to another programme.

60. In 2017, the Regional Office for Africa abolished 30 staff positions in country offices (excluding Nigeria and at-risk countries around Lake Chad), a 4% reduction.[1] For 2018, the number of staffed positions in the process of abolition is 36, still excluding Nigeria and at-risk countries around Lake Chad. These will be reflected in later reports, when the positions are vacated after leave and entitlements are exhausted.

61. It should be noted that the Regional Office for Africa has initiated programmes to help affected staff members to prepare for work outside the polio programme and has conducted workshops in countries that faced the most reductions in positions: Angola, the Democratic Republic of the Congo and Ethiopia.

62. The Regional Office for Africa has also established a system to better capture non-staff technical support. As at October 2017, the number of non-staff providing polio technical support was: 459 under Special Services Agreements, 2265 under Agreements for Performance of Work, and three consultants. Most of these, including nearly 2000 holders of Agreements for Performance of Work, are working in Nigeria. These numbers fluctuate, based on polio campaigns, country priorities and contract end dates, and are captured on a monthly basis. The figures will be updated and changes measured in future reports.

63. Progress in the Eastern Mediterranean Region – with two endemic countries and a circulating vaccine-derived poliovirus outbreak in the Syrian Arab Republic – is largely being maintained, thanks to intense efforts to interrupt transmission. The Regional Office has established a regional polio transition steering committee to guide human resources planning, in order to ensure that the polio programme does not lose its staff prematurely and that strong performers can be retained within the Organization to meet the needs of other programmes. In addition, human resources mapping has been completed for Somalia and Sudan.

64. In the South-East Asia Region, the WHO Country Office in India is implementing a transition of the polio programme. National and state governments remain committed to an incremental increase in domestic resources between 2018 and 2021, in order to maintain a polio-free status as well as to sustain progress in other programmatic areas. In the context of this transition, polio assets are being leveraged across the country to support various public health activities. In full respect of the priorities, a phased approach is under way to retire the polio programme's fleet of vehicles and outsource transportation services.

65. As the Global Polio Eradication Initiative's "footprint" gets gradually smaller in the coming years, WHO's Polio department is looking to transition its essential polio-funded staff and assets into other complementary WHO programmes in order to sustain these essential functions and ensure a polio-free world, while strengthening health systems. For example, posts funded by the polio programme are performing critical functions in addition to polio eradication and immunization in highly vulnerable, fragile and conflict countries, where the WHO Health Emergencies Programme is scaling up capacity. It is vital that this work becomes increasingly integrated over the course of 2018–2019 towards the common vision of "keeping the world safe" and "serving the most vulnerable". To this end, the WHO Health Emergencies Programme and the polio programme will jointly identify qualified staff members to be transferred to newly created country business model positions in highly vulnerable, fragile and conflict countries, to ensure joint planning and

[1] As at 21 November 2017.

implementation of subnational operations for integrated disease surveillance, case investigation, emergency immunization, and essential health service delivery to vulnerable populations.

66. In order to keep staff members motivated and to ensure that the quality of surveillance and of supplementary and routine immunization activities is not compromised, WHO headquarters is working with regional offices and concerned country office communication teams to ensure that clear messages are sent to staff to keep them informed about the polio transition process. It also expected that the messages will be harmonized with UNICEF at the three levels of the Organization.

67. Based on the estimated country capacities needed for implementation of the post-certification strategy and the identification of potential owners of essential polio functions after the dissolution of the Global Polio Eradication Initiative, the polio programme will work with other programmatic areas, such as immunization and the WHO Health Emergencies Programme, to share relevant information on the skilled staff, the financing available in the short term (2017, 2018–2019), terminal liabilities, and modalities to transition these staff to other programmatic areas, either through lateral transfers or by providing opportunities to compete for vacancies in other areas. This close collaboration between WHO headquarters and regional and country offices will be critical to sustain essential staff and support many country-level processes to scale up technical assistance.

68. Human resources information and data will be updated and regularly uploaded on the webpage for polio transition that is being established.

Budget planning

69. The Global Polio Eradication Initiative is the largest single operational programme within WHO. For the biennium 2018–2019, polio eradication represents some 20% of WHO's overall budget of US$ 4422 million. Given the sheer size of the programme, the significance of its funding of country programmes, and the ongoing scaling-down of the polio programme and its eventual "sunsetting" in 2020, it is critical for management to have accurate, transparent and timely information to guide the programme in this complex environment, allocate appropriate resources and report on implementation. In addition, the polio programme has to ensure that the scaling-down of resources does not result in the loss of positions that could negatively impact the effective implementation of essential polio functions.

70. To address the above concerns, the polio programme provided detailed guidance to support 65 country offices and the six regional offices in developing their 2018–2019 workplans that would facilitate effective planning, implementation and monitoring and would provide the transparency and accountability expected by donors and governing bodies.

71. The key objectives of the 2018–2019 polio workplans are:

(a) to plan accurately plan the costs and capture the expenditure associated with approved polio activities, human resource costs for staff and non-staff, and the costs of "field operations" in relation to the Global Polio Eradication Initiative budget structure at a level of granularity that supports stewardship of the Initiative

(b) to facilitate monitoring, reporting and resource allocation at country, regional and global levels

(c) to ensure polio surveillance activities and staff are more distinct and accurately represented in workplans

(d) to clarify the definition of "technical assistance" and distinguish it from "field operations"

(e) to establish and implement uniform operational workplans across all offices to facilitate Initiative-wide programme monitoring, reporting and assessment

(f) to make necessary planning and budget choices to provide for and protect polio-essential activities that must be sustained through certification.

72. In addition to the guidance provided by the Polio department, the Global Planning Network is discussing the need to increase the budget ceilings in certain budget categories in order to help to accommodate the transition of polio capacities into other programmatic areas and budget categories.

UPDATE ON THE PROPOSED LIST OF SECRETARIAT ACTIONS (BETWEEN 1 JUNE AND 31 DECEMBER 2017)[1]

Active high-level oversight at all three levels of the Organization

73. On taking office, the Director-General received a detailed briefing by the polio transition team that was working under the Executive Director of the Office of the Director-General, highlighting the programmatic, financial, human resources, country capacity and significant reputational risks that polio transition presents and the next steps requested by Member States until the Executive Board session in January 2018. During this meeting, the Director-General agreed to the establishment of a dedicated team to manage polio transition planning and implementation.

74. Since the Seventieth World Health Assembly, the Office of the Director-General has continued to provide oversight of the transition planning process, through chairing a meeting of the WHO Global Polio Transition Steering Committee in September 2017, with the participation of all relevant departments at WHO headquarters and the three concerned regions (African, South-East Asia and the Eastern Mediterranean), and by providing briefings to the Independent Expert Oversight Advisory Committee at its meetings in July and October 2017.

75. During the ninth Meeting of Heads of WHO Country Offices, held in Geneva at the end of October 2017, a lunch-time seminar was organized on the draft post-certification strategy and WHO's role and responsibilities in keeping the world polio-free, during which the impact of polio transition on countries was also discussed. Sixteen heads of WHO country offices from priority countries, as well as high-level leaders from related departments (polio, immunization, and emergencies), attended the meeting. An information session was organized on 12 December 2017 to inform Member States about measures initiated since the Seventieth World Health Assembly, the development of the strategic action plan and how to align polio transition to the priorities of the draft thirteenth general programme of work.

[1] See Annex to World Health Assembly document A70/14 Add.1 (http://apps.who.int/gb/ebwha/pdf_files/WHA70/A70_14Add1-en.pdf, accessed 16 December 2017).

76. Polio transition was discussed by the WHO regional committees for Africa, South-East Asia and the Eastern Mediterranean. At the sixty-seventh session of the Regional Committee for Africa (Victoria Falls, Zimbabwe, 28 August–1 September 2017), Member States were urged to finalize their polio transition plans. In addition, the Regional Director for Africa organized a briefing session with priority countries in order to highlight the importance of surveillance in the context of certification of eradication. On the margins of the sixty-fourth session of the Regional Committee for the Eastern Mediterranean (Islamabad, 9–12 August 2017), a side meeting was organized on the draft post-certification strategy and polio transition under the chairmanship of the Director of Programme Management at the Regional Office for the Eastern Mediterranean. Similarly, polio transition was discussed during the seventieth session of the Regional Committee for South-East Asia (Maldives, 6–10 September 2017). Polio transition and the draft post-certification strategy were also discussed during the Thirtieth Intercountry Meeting of National Expanded Programme on Immunization Managers (Muscat, 10–13 December 2017).

77. A dedicated polio transition planning webpage is being developed on the WHO website and will be populated with data on the country-level polio transition planning process in the 16 priority countries, as well as with other polio transition planning data and documents. The webpage will be regularly updated.

78. In November 2017, a designated WHO polio transition team was set up, under the oversight of the Assistant Director-General for Special Initiatives, with representatives from relevant programmes, to work on finalizing the strategic action plan. The regional directors for Africa, South-East Asia and the Eastern Mediterranean have been informed of the new set-up at WHO headquarters and asked to nominate a regional focal point to liaise with the team and ensure that heads of WHO country offices are fully briefed on the steps that need to be taken at country level.

Coordinated human resources planning and budget management

79. The human resources working group of the WHO Global Polio Transition Steering Committee has started tracking regional human resource plans in a systematic manner, through bi-monthly teleconferences. The quarterly reports will be uploaded to the dedicated polio transition page on the website before the Seventy-first World Health Assembly.

80. There has been some progress regarding plans for staff retention, retraining and career transition, with career transition support provided at regional level by the Regional Office for Africa. Meetings have been held between the Polio department and the WHO Health Emergencies Programme on ways to transition polio staff to the WHO Health Emergencies Programme at country level, which includes sharing of the polio human resources database with the Programme, actively publicizing Programme vacancy announcements to polio staff, prioritizing recruitment of polio staff to occupy vacant Programme positions, and discussion of possibilities of cost-sharing and modification of terms of reference.

81. Heads of WHO country offices have taken the lead on communications with staff members and external stakeholders at country level, but a corporate WHO communication plan for polio transition will need to be fully developed in order to harmonize messages on polio transition with the vision presented in the draft thirteenth general programme of work.

82. As a part of operational planning for the biennium 2018–2019, discussions are ongoing within the Global Planning Network on revision of the budget ceilings of other programmatic areas to absorb polio capacity. The Polio department has also provided significant guidance to countries and regions

on the development of their operational and human resource planning for 2018–2019, with a view to ensuring that essential polio functions such as surveillance are protected as countries' polio budgets are scaled down, and that non-polio activities are excluded in polio budget planning.

83. Discussions have been initiated to ensure that polio transition needs are taken into consideration during programme budget planning for 2020–2021 and estimation of associated financing requirements for the draft thirteenth general programme of work. Polio transition needs will be covered in the WHO investment case, aligned with the priorities as set out in the draft thirteenth general programme of work.

ACTION BY THE EXECUTIVE BOARD

84. The Board is invited to note the report and to consider the following draft decision:

> The Executive Board, having considered the report on polio transition planning,[1] decided:
>
> (1) to acknowledge the Director-General's establishment of a polio transition planning and management team and the elaboration of a vision and a strategic framework for transition planning;
>
> (2) to note that the current report partially fulfils the request in the Health Assembly's decision WHA70(9) (2017), and accordingly to request the Director-General to submit to the Seventy-first World Health Assembly a detailed strategic action plan on polio transition, aligned with the priorities and strategic approaches of the draft thirteenth general programme of work 2019–2023;
>
> (3) to acknowledge the progress made in the development of draft national polio transition plans in the priority countries, reiterating the urgency of finalizing and approving national plans by governments in all countries that have stopped poliovirus transmission;
>
> (4) to welcome the draft post-certification strategy, urging all Member States to take appropriate measures to ensure that their short- and long-term health sector plans reflect the need to sustain the polio-essential functions necessary to ensure a polio-free world;
>
> (5) to request regular communication to all Member States on the progress made in polio transition planning efforts, through regular updates on the dedicated polio transition planning webpage and the organization of an information session before the Seventy-first World Health Assembly;
>
> (6) to request the Director-General to ensure that the Secretariat's budget planning for the biennium 2020–2021 reflects the financing requirements associated with sustaining polio-essential functions, including a possible revision of budget ceilings for integration of polio-essential functions into relevant programmatic areas;

[1] Document EB142/11.

(7) to acknowledge that additional financial resources will be required by the polio transition team to effectively plan, manage and implement polio transition efforts across the three levels of the Organization, and accordingly to request the Director-General to develop a budget and include these costs in the financing plan for the thirteenth general programme of work 2019–2023;

(8) to request the Director-General to ensure that the subject areas of polio transition planning and polio post-certification are standing items on the agenda of all sessions of WHO's governing bodies during the period 2018–2020, and that the Secretariat provides detailed progress reports on these technical subjects during those sessions.

ANNEX 1

SUMMARY BUDGETARY FIGURES FOR THE SCALE DOWN OF THE GLOBAL POLIO ERADICATION INITIATIVE FOR WHO COUNTRY OFFICES IN NON-ENDEMIC COUNTRIES (US$ 000)[a]

Country	2016	2017	2018	2019
Angola	9 968	7 218	5 626	4 486
Bangladesh	2 895	2 038	1 871	1 739
Cameroon	5 085	3 689	2 430	2 448
Chad	11 262	7 071	5 774	4 965
Democratic Republic of the Congo	26 369	17 301	17 384	13 313
Ethiopia	31 858	19 341	4 429	4 482
India	23 060	19 555	17 749	16 303
Indonesia	17 534	907	890	881
Myanmar	1 210	1 007	962	930
Nepal	3 504	3 036	1 129	1 044
Somalia	15 580	10 040	7 464	6 546
South Sudan	11 687	5 967	5 368	2 862
Sudan	6 441	6 289	2 380	2 255

[a] The budget figures for 2018–2019 are aligned with overall resources and may be subject to change in line with needs in the endemic countries.

ANNEX 2

SUMMARY OF COUNTRY POLIO TRANSITION PLANS[1]

Priority country	Priorities identified for transition	Funding options considered
Bangladesh	Surveillance of vaccine-preventable diseases Immunization service delivery Maternal and child health (MCH) service delivery	External funding until 2022 (from The GAVI Alliance through health system strengthening support), with the Government planning to take over functions and funding in 2023 (expected date of "graduation" from support from The GAVI Alliance).
Cameroon	Maintaining polio-free status by strengthening the Expanded Programme on Immunization (especially in high-risk districts and by strengthening community health care)	Detailed financing strategy until 2021, with costings that include projected sources of funding (both domestic and external), with heavy reliance on partner agency support (WHO, UNICEF, United States Centers for Disease Control and Prevention).
Chad	Broader disease surveillance (of vaccine-preventable diseases, neglected tropical diseases) and immunization	Covers the period 2017–2021, relies exclusively on continued partner agency funding and technical support (WHO, UNICEF), with the Government taking over some minor functions (i.e. micro-planning, community engagement).
Democratic Republic of the Congo	Immunization and surveillance	Covers the period until 2022, during which implementing partners fund and implement core activities. Potential for medium-term domestic funding embedded in the plan (increasing health budget for immunization).
India	Communicable disease surveillance Reaching the national goal of full immunization (90%)	Covers the period between 2016 and 2026 (in two phases), with gradual scaling-down of operations. Complete phase-out and transfer to the Government in 2026. The Government is increasing its financial support from 10% to 50% over the next five years.

[1] This summary information is based on draft costed country transition plans, which are still being finalized by governments in coordination with WHO and UNICEF country offices, and with input from stakeholders. Further details of draft plans and progress in other countries are available on the Global Polio Eradication Initiative's website (http://polioeradication.org/polio-today/preparing-for-a-polio-free-world/transition-planning/country-transition-planning/, accessed 17 December 2017).

Priority country	Priorities identified for transition	Funding options considered
Indonesia	Sustaining polio-essential functions to maintain polio-free status	The programme has already "transitioned", with assets and functions already integrated into the country's Expanded Programme on Immunization and surveillance programmes. The Global Polio Eradication Initiative through the WHO Secretariat is providing limited funding for surveillance, training and laboratory support. It is more accurate to describe the situation in Indonesia as "sustainability" planning, with the focus on sustaining polio-essential functions for the next 5–10 years to maintain the country's polio-free status.
Myanmar	Broader surveillance (of vaccine-preventable diseases, surveillance for pandemic influenza) and immunization	Covers the period between 2017 and 2021. Gradual transfer of functions and funding, with WHO maintaining support for functional units and operations for some time. The Government will fully take over after 2021. External funding option explored though funds from The GAVI Alliance.
Nepal	Surveillance of vaccine-preventable diseases Immunization service delivery Maternal and child health (monitoring of deaths from diarrhoea and pneumonia in children under 5 years of age)	Covers the period between 2017 and 2021, with the Government gradually taking over some functions/funding of the redesigned polio network. Small catalytic domestic funding (added as a line item in the country's health budget) to be gradually increased over time.

ANNEX 3

CAPACITIES AND ASSETS REQUIRED AT THE COUNTRY LEVEL TO MAINTAIN A POLIO-FREE WORLD

1. The following is an initial analysis of the capacities and assets that will be required to keep the world polio-free at the country level post-certification, for the three goals covered by the post-certification strategy: containment; protecting populations; detection and response.

2. WHO will play a key role in the implementation of these functions. The analysis provides a high-level initial range of the estimated costs of these functions, which are primarily extrapolated from actual costs, and is aimed at setting a baseline. More comprehensive long-term cost projections are being developed and will be available once the post-certification strategy is finalized.

GOAL 1: CONTAINMENT

3. Containment of polioviruses will remain a core and long-term function for WHO. In order to sustain a polio-free world, it is crucial to ensure that polioviruses are properly contained or removed in laboratories and vaccine manufacturing and other facilities by (i) validating containment of OPV/Sabin poliovirus after cessation of use of bivalent OPV and after use of OPV for outbreak response, and (ii) monitoring and supporting long-term adherence to containment of poliovirus-essential facilities with appropriate safeguards.

4. Efforts to contain wild poliovirus type 2/circulating vaccine-derived poliovirus type 2 and OPV2/Sabin2 poliovirus have progressed significantly since the declaration of eradication of wild poliovirus type 2 in September 2015 and the globally synchronized switch from trivalent OPV to bivalent OPV in May 2016. These efforts are guided by the WHO Global Action Plan to minimize poliovirus facility-associated risk after type-specific eradication of wild polioviruses and sequential cessation of oral polio vaccine use (GAPIII).[1] That Global Action Plan proposes two major strategies to achieve effective containment:

(a) reduce the number of facilities that store or manipulate poliovirus; and

(b) implement stringent containment safeguards in facilities that continue to handle poliovirus.

5. Once polio is fully eradicated, only poliovirus-essential facilities certified by their respective national authority for containment against GAPIII requirements and in line with the Containment

[1] WHO. WHO Global Action Plan to minimize poliovirus facility-associated risk after type-specific eradication of wild polioviruses and sequential cessation of oral polio vaccine use. Geneva: World Health Organization; 2015 (http://polioeradication.org/wp-content/uploads/2016/12/GAPIII_2014.pdf, accessed 21 December 2017).

Certification Scheme to support the WHO Global Action Plan for Poliovirus Containment[1]) should continue to retain polioviruses.[2]

Countries with a poliovirus-essential facility

6. Onsite audits are required to initially assess the adequate implementation of GAPIII in all designated poliovirus-essential facilities.[3] Regular monitoring should be scheduled by national authorities for containment to ensure that all certified poliovirus-essential facilities adhere to the requirements, as part of the continuity of the risk mitigation plan.

7. As required by GAPIII, in cases of a breach in containment, countries must implement their contingency plans for potential virus release or exposure, which should include the actions and responsibilities of the facility, the institution, the ministry of health and other concerned government agencies. WHO recommendations for immunization against polio should be closely reviewed and followed by those countries hosting poliovirus-essential facilities.[4]

Countries without a poliovirus-essential facility and with a poliovirus-non-essential facility

8. Countries that are not hosting a poliovirus-essential facility should ensure that their polio-free status is not put at risk by the sudden willingness of a facility to manipulate poliovirus, out of containment, after certification and OPV cessation.

9. Nonetheless, these countries should ensure that they are aware of the containment requirements and contingency plans, in case of unexpected breaches, and that they are following the WHO recommendations for immunization against polio.

WHO's proposed role in implementing Goal 1

10. WHO will continue to support key functions beyond certification and OPV cessation, including:

- advocating to reduce the number of poliovirus-essential facilities to an absolute minimum (such as 20) so as to minimize the global risk;
- providing technical assistance to national authorities for containment and supporting the development of GAPIII auditing capacity at the country level;
- maintaining global and independent oversight of containment;

[1] Containment certification scheme to support the WHO global action plan for poliovirus containment (GAPIII-CCS). Geneva: World Health Organization; 2017 (http://polioeradication.org/wp-content/uploads/2017/03/CCS_19022017-EN.pdf, accessed 21 December 2017).

[2] As at 31 October 2017, 174 Member States have confirmed that they do not intend to host a poliovirus-essential facility, with 12 Member States yet to report.

[3] As at 31 October 2017, 27 Member States reported that they intend to retain type 2 polioviruses in 91 designated poliovirus-essential facilities. These numbers may change over time.

[4] In support of Member States' efforts, the Secretariat is strengthening the technical capacity of national authorities for containment by training auditors in GAPIII and the Containment Certification Scheme. In addition, the Secretariat is developing a protocol for public health management of a breach of poliovirus containment, initially looking at poliovirus type 2.

- keeping containment as a core WHO function;
- developing/updating containment reference documents, if/when needed.

Estimated costs

11. The costing (Table 1) is estimated on the basis of information shared by national regulatory authorities for good manufacturing practices site audits. However, a cost analysis for poliovirus-essential facilities and national authorities for containment (by the Bill & Melinda Gates Foundation Program for Appropriate Technology in Health) will soon become available.

Table 1. Estimated range of costs, required duration of funding and implementing entity

Entity	Function/item	Estimated range of costs (per poliovirus-essential facility and per year)	Length of time function will be needed	Implemented by
Countries with a poliovirus-essential facility	Onsite audit Routine evaluation and variation assessment without site audit	US$ 20 000–40 000 US$ 1000–2000	Ongoing, for the duration of the poliovirus-essential facilities	Member States
Countries without poliovirus-essential facilities	Poliovirus surveillance as part of national surveillance	No additional containment costs		

WHO Secretariat costs

Activity	Estimated annual cost range	Duration
Containment policy, secretariat services to the Containment Advisory Group, Global Certification Commission and Containment Working Group, revision of reference documents, training and maintenance of a pool of international auditors, technical assistance to Member States hosting poliovirus-essential facilities	US$ 3–5 million including staff and activities, declining over time as most facilities become compliant	For as long as live poliovirus is used

GOAL 2: PROTECTING POPULATIONS

12. Eliminating all paralytic poliomyelitis and sustaining wild poliovirus eradication ultimately requires stopping all use of live oral poliovirus vaccines globally and continuing to immunize with other safe, effective polio vaccines. These dual efforts – withdrawing bivalent OPV and extending widespread use of inactivated polio vaccine (IPV) in routine immunization to achieve 90% seroconversion for each fully-vaccinated child – will mitigate the risks from vaccine-associated paralytic polio and vaccine-derived polioviruses types 1 or 3 and protect against the possible reintroduction of wild poliovirus.

Cessation of bivalent oral polio vaccine

13. While the Global Polio Eradication Initiative established a general framework in 2005 for the eventual withdrawal of OPV after certification, the lessons learned from the switch from trivalent OPV to bivalent OPV provide supplemental guidelines for bivalent OPV cessation. Withdrawing bivalent OPV after global certification, however, represents a new challenge: the complete cessation, not simply a switch, of use of live polio vaccines.

14. To maximize population immunity to poliovirus types 1 and 3, country-level withdrawal of bivalent OPV should be scheduled as soon as feasibly possible after global certification, ideally within 12 months. Currently 144 countries and six territories globally are using OPV, and they would need to participate in this globally synchronized switch if they do not switch to an IPV-only schedule before cessation. Countries with low IPV coverage rates may also need to plan for vaccination campaigns to boost polio immunity levels before withdrawal of OPV.

15. The withdrawal of type 2 OPV in a globally synchronized fashion has highlighted the importance of allowing adequate time and resources for preparation and coordination among partners. Global preparation for this operationally challenging event will need to begin well in advance (18–24 months) before implementation; delays in finalizing the date of cessation will have financial consequences, as well as raise the possibility of reputational risk.

Inactivated polio vaccine in routine immunization post-cessation

16. The Strategic Advisory Group of Experts on immunization has indicated that countries should aim to achieve durable individual immunity through providing at least 90% seroconversion and robust antibody titres to all three poliovirus serotypes.

17. To achieve this, the Group of Experts recommends that countries using stand-alone IPV should include at least two doses of IPV in their routine immunization schedule, the first at or after 14 weeks (i.e. with the second or third dose of diphtheria/tetanus/pertussis (DTP) or DTP-containing vaccine) and the second dose ≥4 months after the first dose, administered either as full or fractional doses. Countries without poliovirus-essential facilities should maintain IPV in their routine immunization schedule for at least 10 years after global OPV withdrawal, and countries with poliovirus-essential facilities should continue to use IPV longer, as is outlined in GAPIII. The Group of Experts has not yet issued guidance on combination vaccines that include IPV.

18. In the post-certification era, attaining and sustaining high immunization coverage with IPV will require extensive coordination across global, national, and ultimately, community levels. The GAVI Alliance and the Global Polio Eradication Initiative have launched a global process called "The IPV Supply and Procurement Roadmap" to analyse the demand and supply dynamics of IPV. The IPV Roadmap aims to define actions that may positively impact the IPV market by increasing supply, improving pricing and supporting the availability of new innovative vaccines. This will help to guide IPV planning for the post-certification era.

WHO's proposed role in implementing Goal 2

19. As was the case for the withdrawal of trivalent OPV, the Secretariat will work with Member States and partners to enable implementation. This includes close coordination with UNICEF Programme Division on bivalent OPV cessation and with UNICEF Supply Division, The GAVI Alliance, the PAHO Revolving Fund for Vaccine Procurement and vaccine manufacturers on IPV.

20. Within the WHO Secretariat, the Expanded Programme on Immunization team will lead this work, as these activities mainly involve the routine immunization programme, and this team also led the switch from trivalent to bivalent OPV and have already started planning for these activities.

21. The pre-cessation vaccination campaigns, however, rely on the expertise of the polio programme team, given its experience in managing and implementing polio-specific supplementary immunization activities, and are thus best coordinated from within that team.

Estimated costs

Oral polio vaccine cessation

22. Given the variability in epidemiology, infrastructure and operational constraints between the different countries withdrawing OPV, the resources needed to withdraw OPV will vary, based on country geography, existing infrastructure, risk of circulating vaccine-derived polioviruses and current capacity (see Table 2). Member States that are categorized as low-income countries and lower-middle-income countries and at higher risk from outbreaks due to vaccine-derived polioviruses will be eligible for some support in implementing OPV-withdrawal activities. All other low-income and lower-middle-income countries, as well as upper-middle-income and high-income countries still using OPV, are expected to self-finance activities.

Table 2. Expected number of units to be supported

Activity	Cost/unit	Number of countries/ facilities expected to be supported	Notes
OPV cessation – implementation and monitoring	Range: US$ 50–241 per facility	85–27 000/facilities per country	Estimated support that will need to be provided to eligible low- and middle-income countries through WHO is US$ 20–30 million. Costs are one-off, to support withdrawal of OPV and the associated monitoring. Costs apply only to countries still using OPV in their national schedules.
OPV cessation – independent validation of OPV withdrawal	Average: US$ 350 000/ per country	40–50 countries	Estimate based on current epidemiology and may change over time.
Pre-OPV cessation vaccination campaigns	Range: US$ 250 000–$290 000 per country	40–50 countries	Estimate based on current epidemiology and may change over time.

Vaccination with inactivated polio vaccine

23. In line with the current guidance of the Strategic Advisory Group of Experts on immunization, IPV vaccination should continue for at least 10 years after cessation of OPV use, and longer in countries housing poliovirus-essential facilities, including laboratories and vaccine manufacturing facilities. With the exception of countries that will be eligible for support through The GAVI Alliance, it is expected that all Member States will self-finance IPV vaccine costs.

24. Price estimates are based on current vaccine pricing and are likely to change over time. Annual figures are provided in Table 3 as indicative figures only.

Table 3. Estimated costs of vaccine to administer two doses of IPV

Activity	Country category	Estimated vaccine cost per child vaccinated with two doses of IPV	Assumptions	Notes
Vaccination in line with the post-cessation IPV schedule recommended by the Strategic Advisory Group of Experts on immunization	High-income countries	US$ 7.50–180	These countries will administer IPV in full dose only, and presentation types used will range from stand-alone to combination vaccine	The current recommendation of the Strategic Advisory Group of Experts on immunization is two doses, either fractional or full dose. Cost per child vaccinated is for two doses only. If IPV is given as part of a combination vaccine, the usual course is 4+ doses. Range is wide due to variety of vaccine presentations being used. Prices may change due to market fluctuations over the next decade. Cost estimates for whole-cell pertussis-containing hexavalent vaccines are preliminary, and supply availability as of 2021 is not yet confirmed. Continued IPV vaccination is recommended for at least 10 years post-cessation, longer in case of countries producing polio vaccines or conducting research with polio samples.
	Upper-middle-income countries (neither GAVI- nor PAHO-supported)	US$ 5–85	The range of costs for these countries is based on the assumption that they will use a variety of IPV presentations, ranging from stand-alone full dose through to combination vaccine, both those containing acellular (aP) and those containing whole-cell (wP) pertussis vaccine component	
	Lower-middle-income countries (neither GAVI- nor PAHO-supported)	US$ 2–50	The range of costs for these countries is based on the assumption that they will use a variety of IPV presentations, ranging from full dose for stand-alone, to combination vaccines, both those containing aP and wP	

Activity	Country category	Estimated vaccine cost per child vaccinated with two doses of IPV	Assumptions	Notes
	GAVI Alliance-supported countries	US$ 2–5	The range of costs for these countries is based on the assumption that they will use various IPV presentations, ranging from fractional and full dose for stand-alone and wP-containing hexavalent vaccine, if available	For this preliminary analysis, we have assumed that countries will opt for the full dose, and we have not factored in national wastage rates or vaccination supply costs. Any IPV campaigns planned are not included here.
	Countries procuring through PAHO Revolving Fund	US$ 5.80–27	The range of costs for these countries is based on the assumption that they will use various IPV presentations, ranging from full dose stand-alone IPV to combination vaccines, both those containing wP and aP	

WHO Secretariat costs

Activity	Estimated cost range per year	Period	Notes
OPV cessation	Staff costs: US$ 1–2 million Activity costs: US$ 1–4 million	Year before and year of cessation	Costs for other partners (such as UNICEF and the Centers for Disease Control and Prevention) are not included.
OPV withdrawal: independent evaluation	Staff costs: US$ 2–7 million Activity costs: US$ 5–11 million	12 months following cessation	
Bivalent OPV cessation: supplementary immunization activity planning/ execution	Staff costs: US$ 10–20 million Activity costs: US$ 10–15 million	12 months before cessation	

Activity	Estimated cost range per year	Period	Notes
IPV forecasting	Staff costs: US$ 50 000–100 000 Activity costs: US$ 20 000–85 000	Cessation + 10 years	
IPV policy	Staff costs: US$ 20 000–350 000 Activity costs: US$ 50 000–250 000	Cessation + 10 years	Costs include convening a working group of the Strategic Advisory Group of Experts on immunization if policy changes/reviews are needed. If little is needed, the estimate is high.

GOAL 3: DETECTION AND RESPONSE

25. Comprehensive acute flaccid paralysis surveillance and rapid response vaccination campaigns have been core strategies for polio eradication. In the post-certification era, minimizing the risks of delayed detection or inadequate response will largely depend on adequate capacity and adapting to a new world where polio is an eradicated pathogen.

26. The underlying principle guiding post-certification activities is that the discovery of any poliovirus must be reported to WHO under the International Health Regulations (2005) and will lead to the declaration of a national emergency and response. Depending on the risk of international spread, the detection could constitute a public health emergency of international concern requiring a prompt, globally coordinated response. Fulfilling this principle requires sensitive surveillance, an adequate level of outbreak preparedness, and the capacity to respond rapidly and effectively.

Ability to promptly detect any poliovirus in a human or in the environment

27. The post-certification strategy identifies undetected transmission as one of the principal concerns which could jeopardize a polio-free world. Polio surveillance in the post-certification era will take a risk-based approach by prioritizing risks, clarifying risk tolerance and developing risk mitigation measures. The redefined polio surveillance strategy will implement an appropriate mix of surveillance of acute flaccid paralysis, environmental surveillance and enterovirus surveillance, with supplemental activities for hard-to-reach populations or areas.

28. The expected scope, intensity, and strategies for surveillance will depend on a country's assessed risk of poliovirus re-emergence and the time that has elapsed since certification. Actions for different groups of countries are set out below.

High-risk countries

29. Maintain high levels of sensitivity to detect a poliovirus primarily through acute flaccid paralysis surveillance, supplemented by environmental surveillance where appropriate. Ultimately, integrate polio surveillance with vaccine-preventable disease or communicable disease surveillance but maintain polio-specific technical expertise at national level, at least through five years after certification, with capacity to:

- identify high-risk subnational areas or populations;

- implement case-based surveillance of acute flaccid paralysis, event-based surveillance, and special surveillance tactics targeted to reach high-risk populations;

- conduct polio-specific data analysis and information management from acute flaccid paralysis surveillance, environmental surveillance or evidence-based surveillance, including monitoring performance indicators;

- conduct operations research as required to develop streamlined surveillance;

- evaluate significance of compatible cases of acute flaccid paralysis (such as through expert review committees).

Medium-risk countries

30. Integrate polio surveillance with vaccine preventable disease or communicable disease surveillance but maintain polio-specific technical expertise at national level through three years after certification, with capacity to:

- implement the appropriate mix of strategies depending on the time since certification;

- conduct polio-specific data analysis from acute flaccid paralysis surveillance, environmental surveillance or evidence-based surveillance, including monitoring performance indicators;

31. After bivalent OPV cessation, these countries may also rely on global or regional support to conduct acute flaccid paralysis case or event investigations.

Low-risk countries

32. Integrate polio surveillance with vaccine-preventable disease or communicable disease surveillance, with capacity to:

- implement the appropriate mix of strategies depending on the time since certification;

- identify potential polio outbreaks based on surveillance or evidence-based surveillance data.

33. These countries may rely on regional support for acute flaccid paralysis case or event investigations, if necessary.

Adequate and technically qualified laboratory and surveillance infrastructure (including human capacity) and information systems

34. All polio laboratories should continue to follow WHO-validated, standardized methodologies, which will be continually updated to reflect the changing epidemiology of polio.

35. In keeping with the expectation in the International Health Regulations (2005) that each country should have the core capacity to detect any potential public health emergency of international concern, primary responsibility for poliovirus surveillance lies at the national level. However, in the post-certification era, the surveillance required beyond the core capacity will depend on the individual country's risk. Countries need the surveillance infrastructure to meet the expected standards for acute

flaccid paralysis surveillance outlined in the draft post-certification strategy. Again, additional laboratory capacity will depend on the country's assessed risk.

High-risk countries

36. Depending on expected demand, maintain at least one accredited national polio laboratory with at least virus isolation and intratypic differentiation capacity, along with an efficient referral system for sequencing.

Medium-risk countries

37. For all countries, depending on expected demand, maintain or have access to at least one laboratory with virus isolation and intratypic differentiation diagnostic capacity, along with an efficient referral system for sequencing if required.

Low-risk countries

38. Countries (especially those with small populations) may rely on neighbouring country laboratories to process stool samples. Countries with laboratories maintain virus isolation and intratypic differentiation diagnostics.

39. At the country level, any information system in the post-certification period should meet the specific data requirements related to that country's risk.

Readiness to implement outbreak response in case of poliovirus detection

40. In order to respond promptly and effectively to public health risks and public health emergencies of international concern as required by the International Health Regulations (2005), countries should develop preparedness plans and the capacity to implement public health emergency response operations, including risk communication.

National governments

41. Countries have primary responsibility for preparedness/response and should develop minimum capacities as recommended by the International Health Regulations (2005). All countries should have rapid response teams. The breadth of this capacity and how it will be organized depends on individual country situations. Country-level outbreak response strategies will follow global and regional guidelines.

42. High-risk countries should retain polio-specific capacities in rapid response teams for critical responsibilities (such as planning and implementing a supplementary immunization activity) through at least 10 years after certification.

43. Medium-risk countries should retain similar capacity through five years after certification, supported by global or regional surge capacity thereafter.

44. Low-risk countries will utilize global and/or regional surge capacity if required for outbreak support.

Global/regional support

45. In order to sustain global eradication, some polio-specific capacity should be maintained at the global level within implementing agencies for at least 10 years after certification. Regional capacities should mirror the global level, with requirements based on national capacities, especially for high-risk countries. Regions have leadership and operational responsibilities for multi-country or border outbreaks. A global roster of public health polio experts should be established to support countries that lack expertise or surge capacity.

WHO's proposed role in implementing Goal 3

Surveillance (including laboratory capacity)

46. The Secretariat will need to have adequate capacity across the three levels of the Organization (global, regional, country) to provide support to Member States in implementing poliovirus surveillance.

47. At headquarters, this is likely to require maintaining core staff members with polio-specific expertise to guide implementation of activities, such as guideline development, monitoring and quality assurance, risk forecasting and laboratory network coordination.

48. In regional and country offices, this will likely entail ensuring that robust surveillance networks are in place, supported by (regional or national) reference laboratories, and that WHO staff members with polio expertise are available to support high-risk countries for at least one year post-certification, and at regional level beyond that.

Outbreak response capacity

49. The International Health Regulations (2005) obligate WHO to foster country capacity and provide support, if local resources are insufficient.

50. The core of WHO's responsibility is to implement the WHO Emergency Response Framework, which provides generic guidance for the Organization's role in all emergencies. Additionally, the Secretariat should maintain some polio-specific functional capacity at global, regional and country levels, to support Member States in:

- identifying future outbreak risks;
- developing response strategies and preparedness plans; and
- sustaining trained human capacity in high-risk countries and regions to appropriately implement these strategies and plans.

51. WHO headquarters is also likely to be responsible for the management of the monovalent OPV stockpiles that will be used in case of a poliovirus outbreak (including development of guidelines, review of impact and ongoing operational coordination). This work will be implemented in close collaboration with UNICEF Supply Division, who will lead on vaccine procurement.

Estimated costs

Outbreak response

52. The estimated costs for outbreak response, surveillance, Global Polio Laboratory Network and WHO Secretariat activities are set out in Tables 4–7.

Table 4. Estimated costs for outbreak response

Outbreak	Value
Average cost per outbreak	US$ 16–42 million[a]
Estimated number of outbreaks per year after certification[b]	1–3

[a] The estimated costs are based on current outbreak response parameters, with an initial assumption of at least five supplementary immunization activities, with an average target of 2.5 million children for each round. Adjustments will have to be made as the outbreak management policy and guidance is finalized.

[b] These are initial planning estimates, which will have to be revised over time, as the risk will depend on multiple factors. The risk of a circulating vaccine-derived poliovirus outbreak immediately after certification is low, since bivalent OPV will continue to be used for one year after certification. The likelihood of multiple outbreaks will be higher during first few years after cessation and is then expected to decline in subsequent years.

Surveillance

Table 5. Average range of WHO polio surveillance costs (US$ millions)[a]

WHO region	Year				
	2016	2017	2018	2019	2020
Countries where polio is endemic (Africa, Eastern Mediterranean)	30–60	43–57	44–62	33–58	33–58
Countries where polio is not endemic (Americas, Europe, South-East Asia, and the Western Pacific)	0.5–12	0.8–20	0.9–19	1–19	0.9–19

a Includes surveillance and running costs, laboratory costs and technical asssitance for surveillance, based on the Financial Resource Requirements. Technical assistance for surveillance is an extrapolation from current staff position titles. Figures for 2016 are actual spending as per the Global Polio Eradication Initiative expenditure report, figures for 2017 are from the budget approved by the Initiative's Strategy Committee in June 2017. Figures for 2018–2020 are projections based on the assumption of interruption of transmission in 2018. WHO spending in regions that have long been polio-free (the Americas, Europe, and the Western Pacific) give an indication of how WHO support to surveillance will decrease over time post-certification.

Laboratory costs

Table 6. Annual cost of the Global Polio Laboratory Network[a]

Category	Actualized costs[b] (US$ 2017)
Coordination and delivery of specialized services (such as quality assurance, reagents and reference services)	12 250 000
Acute flaccid paralysis surveillance (human resources, supplies, equipment, operations, training and other costs)	16 330 000
Total annual cost	28 580 000

[a] The Network consists of 145 laboratories in 92 countries. It represents a unique partnership between national governments and a number of funding and technical partners, established to support a high-priority public health programme. National governments meet about half the operating costs of the regional reference laboratories and national laboratories, although their relative contribution varies by country and WHO region. In addition, national contributions pay for most of the global specialized laboratories, but external contributions pay for the coordination costs. Thus, the overall contribution of national governments to the Network could be as high as 60%.

[b] The cost estimates from the survey have several limitations and do not factor in environmental surveillance costs. This survey is currently being updated and results will be available early 2018. The figures represent the adjusted costs based on the inflation calculator (US$ 1 in 2002 is equivalent to US$ 1.36 in 2017).

Table 7. WHO Secretariat costs

Activity	Estimated range of annual standard costs[a]	Duration	Notes
Surveillance (including laboratory and data management)	US$ 2 500 000	Current surveillance capacity needs to be maintained for 3–5 years after certification	The estimates do not factor in the capacity needed at regional offices to support these functions
Outbreak response, management of stockpiles (together with UNICEF Supply Division)	US$ 1 500 000	Outbreak response capacity will be scaled down over time, but some capacity will still be needed for 3–5 years after certification	

[a] Estimated costs are extrapolated from actual Secretariat support costs.

ANNEX 4

COUNTRY COOPERATION STRATEGY – HEALTH PRIORITIES OF POLIO TRANSITION COUNTRIES

Region	Country	Percentage of total government expenditure on health	Date of Country Cooperation Strategy	Strategic priorities
African	**Angola**	5.0	2014–2019	1. Health system strengthening
				2. Improving maternal, adolescent and child health
				3. Control of communicable, noncommunicable and neglected tropical diseases
				4. Preparation, surveillance and response to epidemic outbreaks and emergencies
	Cameroon	8.5	2008–2013, extended to 2016	1. Millennium Development Goals and post-2015 agenda
				2. Noncommunicable diseases and external causes
				3. Preparedness and emergency, and disaster response
				4. Health promotion
				5. Health system strengthening
	Chad	3.3	2008–2013	1. Control of communicable and neglected tropical diseases
				2. Noncommunicable diseases
				3. Health promotion throughout the life course
				4. Health system strengthening
				5. Preparedness, surveillance, and response
	Democratic Republic of the Congo	12.9	2008–2015	1. Institutional support for the health ministry
				2. Support for women, adolescent health, and child survival
				3. Support for disease prevention and control of communicable and noncommunicable diseases
				4. Management of the health consequences of emergencies and disasters

Region	Country	Percentage of total government expenditure on health	Date of Country Cooperation Strategy	Strategic priorities
	Ethiopia	15.8	2012–2015	1. Communicable diseases
				2. Noncommunicable diseases
				3. Maternal, newborn, child, and sexual and reproductive health
				4. Improving access to quality and equitable health services
				5. Supporting the development of resilient systems for emergency risk and crisis management
				6. Strengthened partnerships for resource mobilization, harmonization and coordination to achieve health and development
	Nigeria	8.2	2014–2019	1. Strengthening health systems based on a primary health care approach
				2. Promoting health and scale-up priority interventions through the life course
				3. Scaling up priority interventions for communicable and noncommunicable diseases towards universal health coverage
				4. Scaling up national capacity for preparedness and response to public health emergencies, including polio eradication and crisis management
				5. Promoting partnership coordination and resource mobilization in alignment with national, regional and global priorities
	South Sudan	4.0	2014–2019	1. Maternal, newborn and child health
				2. Strengthening national capacity for prevention and control of communicable diseases, noncommunicable diseases and neglected tropical diseases
				3. Strengthening national and subnational capacity for health emergency risk reduction, preparedness, surveillance, response and recovery
				4. Strengthening health systems to respond to health needs of the population of South Sudan
				5. Assisting the Ministry of Health in addressing environmental and social determinants of health

Region	Country	Percentage of total government expenditure on health	Date of Country Cooperation Strategy	Strategic priorities
South-East Asia	**Bangladesh**	5.7	2014–2017	1. Communicable diseases
				2. Noncommunicable diseases
				3. Promoting health through the life course
				4. Health systems
				5. Emergency preparedness, surveillance and response
	India	4.5	2012–2017	1. Supporting an improved role of the Government of India in global health
				2. Promoting access to and utilization of affordable, efficiently networked and sustainable quality services by the entire population
				3. Helping India to confront its new epidemiological reality
				4. Effective implementation and strategic partnership
	Indonesia	5.3	2013–2017	1. Provide technical and management support to help sustain and strengthen key programmes to prevent and control communicable diseases
				2. Promote public health approaches to prevention and control of noncommunicable diseases
				3. Promote policies and strengthen programmes to improve child, adolescent and reproductive health
				4. Support national efforts to promote policies and strengthen the health system to improve access to quality health services in support of universal health coverage
				5. Strengthen the preparedness for, surveillance of and effective response to disease outbreaks and acute public health emergencies and the effective management of humanitarian disasters
	Myanmar	1.3	2013–2017	1. Strengthening the health system
				2. Enhancing the achievement of communicable disease control targets
				3. Controlling the growth of noncommunicable disease burden
				4. Promoting health throughout the life course
				5. Strengthening capacity for emergency risk management and surveillance systems against various health threats

Region	Country	Percentage of total government expenditure on health	Date of Country Cooperation Strategy	Strategic priorities
	Nepal	11.8	2013–2017	1. Achieving communicable disease control targets
				2. Controlling and reversing the growing burden of noncommunicable diseases
				3. Health over the life cycle
				4. Health system strengthening, with revitalized primary health care approach to achieve universal health coverage
				5. Reducing the health consequences of disasters
				6. Addressing environmental determinants of health
Eastern Mediterranean	**Afghanistan**	12.0	2016–2017	1. Communicable diseases
				2. Noncommunicable diseases
				3. Promoting health through the life course
				4. Health systems
				5. Health emergencies
	Pakistan	4.7	2011–2017	1. Health policy and system development
				2. Communicable disease control
				3. Improving the health of women and children
				4. Noncommunicable diseases and mental health
				5. Addressing the social determinants of health
				6. Emergency preparedness and response, and disaster risk management
				7. Partnerships, resource mobilization and coordination
	Somalia	Not available	2017–2019	1. Communicable diseases
				2. Noncommunicable diseases
				3. Health through the life-course
				4. Health system and people-centred health care services
	Sudan	11.7	2008–2013, extended to 2017	1. Strengthen health systems at all levels
				2. Reduce burden of communicable diseases
				3. Promote health through the life course
				4. Support development of consolidated disease surveillance and preparedness, including early warning system and response to emergencies and humanitarian needs
				5. Reduce the burden of communicable diseases, mental health and unhealthy lifestyles

ANNEX 5

A: AVERAGE VALUE OF 13 CORE CAPACITY INDICATORS FOR THE INTERNATIONAL HEALTH REGULATIONS (2005) IN POLIO TRANSITION COUNTRIES[1]

The following table provides details of the average proportion of 13 International Health Regulations (2005) core capacity indicators that are in place for 16 key countries; the indicators were provided during the most recent assessment of implementation of the Regulations. The 13 core capacities for which this average gives a measure are: legislation, coordination, surveillance, response, preparedness, risk communication, human resources, laboratories, points of entry, zoonotic events, food safety, chemical events, radiation emergencies. The core capacities were originally laid out in the Regulations which aim to "prevent, protect against, control and respond to the international spread of disease while avoiding unnecessary interference with international traffic and trade".

Region	Country	Average value of 13 core capacity indicators of the International Health Regulations (2005)
African	Angola	Most recent reporting in 2014 (18%)
	Cameroon	54%
	Chad	40%
	Democratic Republic of the Congo	71%
	Ethiopia	79%
	Nigeria	61%
	South Sudan	Most recent reporting in 2015 (50%)
South-East Asia	Bangladesh	76%
	India	98%
	Indonesia	99%
	Myanmar	84%
	Nepal	72%
Eastern Mediterranean	Afghanistan	42%
	Pakistan	53%
	Somalia	Most recent reporting in 2014 (6%)
	Sudan	Most recent reporting in 2014 (71%)

[1] International Health Regulations (2005) Monitoring Framework - Country profiles (http://apps.who.int/gho/tableau-public/tpc-frame.jsp?id=1100, accessed 21 December 2017).

B: SELECTED INTERNATIONAL HEALTH REGULATIONS (2005) CORE CAPACITY VALUES IN POLIO TRANSITION COUNTRIES

The following table sets out the implementation values for selected core capacity indicators for the International Health Regulations (2005) relevant to the post-polio eradication era. A percentage value is given for each relevant core capacity. These percentages, based on a self-assessment questionnaire sent to States Parties, are to be found on the Global Health Observatory Data Repository. Listed here are the percentages for coordination, surveillance, response, preparedness, risk communication, human resources and laboratories.[1]

Region	Country	Percentage of International Health Regulations (2005) core capacities in place						
		Coordination	Surveillance	Response	Preparedness	Risk communication	Human resources	Laboratories
African	Angola	73% (2014)	25% (2014)	28% (2014)	0% (2014)	14% (2014)	20% (2014)	0% (2014)
	Cameroon	40%	90%	63%	37%	86%	40%	76%
	Chad	47%	75%	59%	27%	57%	20%	48%
	Democratic Republic of the Congo	57%	70%	65%	62%	100%	100%	86%
	Ethiopia	83%	95%	100%	90%	100%	100%	100%
	Nigeria	67%	95%	40%	80%	71%	80%	82%
	South Sudan	80% (2015)	75% (2015)	69% (2015)	90% (2015)	57% (2015)	100% (2015)	51% (2015)
Eastern Mediterranean	Afghanistan	30%	95%	88%	28%	57%	40%	76%
	Pakistan	100%	70%	44%	17%	29%	60%	58%
	Somalia	10% (2014)	65% (2014)	5% (2014)	16% (2013)	14% (2013)	N/A	29% (2013)
	Sudan	100% (2014)	80% (2014)	63% (2014)	81% (2014)	71% (2014)	80% (2014)	61% (2014)

[1] International Health Regulations (2005) Monitoring Framework - Country profiles (http://apps.who.int/gho/tableau-public/tpc-frame.jsp?id=1100, accessed 21 December 2017).

Region	Country	Percentage of International Health Regulations (2005) core capacities in place						
		Coordination	Surveillance	Response	Preparedness	Risk communication	Human resources	Laboratories
South-East Asia	Bangladesh	100%	100%	69%	70%	57%	100%	96%
	India	100%	100%	94%	100%	100%	100%	100%
	Indonesia	100%	100%	100%	100%	100%	100%	100%
	Myanmar	90%	100%	94%	90%	100%	100%	70%
	Nepal	100%	95%	94%	80%	86%	80%	100%

ANNEX 6

PRIORITY COUNTRIES FOR POLIO, IMMUNIZATION AND HEALTH EMERGENCIES

Country	Polio[1]	Immunization	Health emergencies[2] (Tier 1+2)
Afghanistan	X	X	X
Angola	X		
Bangladesh	X		G3
Cameroon	X		
Central African Republic		X	X
Chad	X	X	X
Democratic Republic of the Congo	X	X	X
Ethiopia	X	X	X
Haiti		X	
India	X	X	
Indonesia	X	X	
Iraq			
Kenya		X	
Libya			
Madagascar		X	G2
Mali			X
Mozambique		X	
Myanmar	X	X	X
Nepal	X		X
Niger		X	X
Nigeria	X	X	X
Pakistan	X	X	X
Papua New Guinea		X	
Somalia	X	X	X
South Sudan	X	X	X
Sudan	X		X

Country	Polio[1]	Immunization	Health emergencies[2] (Tier 1+2)
Syrian Arab Republic			X
Uganda		X	G2
Yemen		X	X

[1] Iraq, Libya, Syrian Arab Republic and Yemen are also regional priority countries for polio transition in the Eastern Mediterranean Region.

[2] G2/G3 – Countries not on the current "priority list" of the WHO Health Emergencies Programme but dealing with graded emergencies.

ANNEX 7

NUMBER OF WHO STAFF MEMBERS IN COUNTRY OFFICES AND OTHER LOCATIONS FUNDED BY THE POLIO PROGRAMME (2018)

	Country	**2018 staff count**
Endemic countries	Afghanistan	35
	Nigeria	314
	Pakistan	54
Non-endemic priority countries	Angola	65
	Bangladesh	5
	Cameroon	9
	Chad	32
	Democratic Republic of the Congo	62
	Ethiopia	52
	India	15
	Indonesia	3
	Myanmar	3
	Nepal	1
	Somalia	16
	South Sudan	15
	Sudan	6
WHO headquarters and regional and country offices	Headquarters	72
	Africa (regional and country offices)	204
	South-East Asia (regional and country offices)	2
	Europe (regional and country offices)	6
	Eastern Mediterranean (regional and country offices)	61
	Western Pacific (regional and country offices)	5
Total		1 037

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