
WHO's role and responsibilities in health research

Draft WHO strategy on research for health

Report by the Secretariat

1. High-quality research and evidence are critical for improving global health and health equity, and for the achievement by WHO of its objective, namely, the attainment by all peoples of the highest possible level of health.
2. At a time when there are many competing demands on limited resources, it is especially important for policies and practices in support of health to be grounded in the best scientific knowledge.
3. Research is central to economic development and global health security and it is increasingly recognized that, in order to be effective, research has to be multidisciplinary and intersectoral in nature. In the face of current and emerging health threats – such as those posed by pandemics, chronic diseases, food insecurity, the impact on health of climate change, and fragile health systems – the Secretariat, Member States and the Organization's partners have a joint responsibility to ensure that research and evidence help to achieve health-related development goals and improve health outcomes. An approach that involves all government departments should therefore be adopted so that health is reflected in all government policies.
4. In response to resolution WHA58.34 on the Ministerial Summit on Health Research, the Secretariat prepared a position paper describing WHO's role and responsibilities in health research, which was discussed by ACHR at its forty-fifth session.¹ A report that contained the main points of the position paper was submitted to the Sixtieth World Health Assembly, in May 2007.² The Health Assembly subsequently adopted resolution WHA60.15, in which the Director-General was requested to submit to the Sixty-second World Health Assembly a strategy for the management and organization of research activities within WHO, and to convene a ministerial conference on health research in Bamako, in November 2008.

¹ See document EB117/37.

² Document A60/23.

5. In response, a draft WHO strategy on research for health has been drawn up. In addition, WHO jointly convened, with five other partners,¹ the Global Ministerial Forum on Research for Health in Bamako (see paragraphs 37 and 38 below).

6. At its 124th session in January 2009, the Executive Board considered the draft strategy and adopted resolution EB124.R12.² The draft strategy, amended in the light of comments by members of the Board, is attached at Annex.

7. In May 2009, the Sixty-second World Health Assembly decided to postpone the provisional agenda item on WHO's role and responsibilities in health research to the Sixty-third World Health Assembly.³

THE CONSULTATION PROCESS

8. Informed by previous Health Assembly resolutions on research, a highly participatory and inclusive consultative process was conducted in order to formulate the strategy. The approach involved a historical review of research in WHO, together with a comprehensive survey and analysis both of current research activities within the Organization⁴ and of WHO's role in the wider context of global health research.

9. During an 18-month period, from March 2007 to September 2008, the Secretariat solicited key stakeholders and partners (governments, nongovernmental organizations, funding agencies for research and development, research institutes, civil society and industry) for their views on research at WHO. The exercise sought to identify areas of success, changes that were needed and future priorities for research. Stakeholders' comments were posted on a dedicated web site and integrated into successive working versions of the strategy.

10. Consultative meetings and dialogue were organized with each of the six WHO regional offices, with technical departments at headquarters and with the advisory and governing bodies of WHO's research programmes. In total, more than 300 staff, including those based at country offices, provided inputs to the strategy.

11. The consultation process was guided by an independent external reference group, which was composed of representatives from governments, nongovernmental organizations, research funders, researchers, civil society and industry. ACHR provided further independent advice and support for the development of the strategy.

12. During the elaboration of the draft strategy account was taken of the following: the (then draft) global strategy and plan of action on public health, innovation and intellectual property,⁵ which was

¹ Government of Mali, UNESCO, World Bank, Global Forum for Health Research, Council for Health Research for Development.

² See document EB124/2009/REC/2, summary record of the twelfth meeting.

³ See document WHA62/2009/REC/3, summary record of the first meeting of the General Committee.

⁴ Document entitled "Overview of Research at WHO 2006/07", available online at http://www.who.int/rpc/research_strategy/en/index.html.

⁵ Subsequently adopted in resolution WHA61.21.

the outcome of the second session of the Intergovernmental Working Group on Public Health, Innovation, and Intellectual Property; the report of the Commission on Social Determinants of Health,¹ and the Global Ministerial Forum on Research for Health in Bamako.

13. Based on the consultation process, the draft strategy contains recommendations for the Secretariat, Member States and partners, including international partners, nongovernmental organizations and the private sector.

DEFINITIONS

14. For the purposes of the strategy, research is defined as the development of knowledge with the aim of understanding health challenges and mounting an improved response to them. This definition covers the full spectrum of research, which spans five generic areas of activity: measuring the problem; understanding its cause(s); elaborating solutions; translating the solutions or evidence into policy, practice and products; and evaluating the effectiveness of solutions.

15. The term “research for health” reflects the fact that improving health outcomes requires the involvement of many sectors and disciplines. As identified in the work of the Global Forum for Health Research, it is research that seeks to understand the impact on health of policies, programmes, processes, actions or events originating in any sector; to assist in developing interventions that will help prevent or mitigate that impact; and to contribute to the achievement of the Millennium Development Goals, health equity and better health for all.

THE DRAFT STRATEGY: VISION, MISSION, PRINCIPLES AND GOALS

16. The Annex to this document contains a comprehensive, Organization-wide draft strategy that sets out how to strengthen WHO’s role in research for health, and the consequent role of research in WHO.

17. The draft strategy builds on WHO’s core functions, adding value, where possible, to efforts in support of global research for health. WHO’s strengths in this area include the following: a neutral status and independence; a broad global membership; an unparalleled experience in the field of international public health; a central role in global normative work; a commitment to evidence-based debate; an ability to convene numerous formal and informal networks around the world; and a regionalized structure that provides the Organization with numerous opportunities for communicating and cooperating with countries.

18. Taking account of these unique advantages and recognizing the desirability of considering health research using a systems approach, the vision, mission, principles and goals of the draft strategy were defined. In order to facilitate this exercise, an analysis was conducted of trends in global health research and a synthesis made of shared, emergent themes from the consultation process.

¹ *Closing the gap in a generation: health equity through action on the social determinants of health: final report of the Commission on Social Determinants of Health*. Geneva, World Health Organization, 2008.

19. The **vision** for the draft strategy is that decisions and actions to improve health and enhance health equity are grounded in evidence from research.

20. The **mission** of the draft strategy is for the Secretariat, Member States and partners to work together to harness science, technology and broader knowledge in order to produce research-based evidence and tools for improving health.

21. A set of guiding principles has been defined for WHO's approach to research for health. The principles – quality, impact and inclusiveness – will guide decision-making in efforts to achieve the goals.

22. Five interrelated goals have been defined in order to enable WHO to realize the draft strategy's vision of the application of research-based evidence to inform decisions and actions in support of health and health equity.

23. The **Organization goal** involves the strengthening of the research culture across WHO; the **priorities goal** concerns the reinforcement of research that responds to priority health needs; the **capacity goal** relates to the provision of support to the strengthening of national health research systems; the **standards goal** concerns the promotion of good practice in research, drawing on WHO's core function of setting norms and standards; and the **translation goal** involves the strengthening of links between the policy, practice and products of research.

24. Each goal is framed according to the challenges that will need to be met; the actions that Member States, the Secretariat and partners will take in response to those challenges; and a description of the results that achievement of the goals is expected to produce.

25. With the exception of the Organization goal, all the goals concern all Member States and all individuals, communities, institutions and organizations involved in the production and/or use of research, including WHO. The goals cut across national, regional and global levels, and across the Organization.

26. In resolution WHA60.15, the Health Assembly requested the Director-General to develop a strategy for the management and organization of research activities within WHO. This represents an opportunity for the Organization to: (1) review and revitalize the role of research within WHO; (2) improve the provision of its support to Member States in building health research capacity; (3) strengthen its advocacy of the importance of research for health; and (4) better communicate its involvement in research for health.

IMPLEMENTATION

27. A plan will be drawn up for implementing the strategy in a phased manner at all levels of the Secretariat over a 10-year time frame; it will be incorporated into operational arrangements and workplans. The strategy has served as a guiding framework for the formulation of workplans in the regional offices, which are now in charge of their implementation. In discussion with Member States, implementation plans will also be integrated into country cooperation strategies.

28. The implementation plans are realistic and define clear roles and responsibilities; they also specify the resources needed and identify the outcomes and impacts expected within a defined timetable, as indicated in the Annex. The plans build on the research activities already in progress in

more than 34 technical programmes within WHO, and on alliances and networks in support of the strategy's goals.

29. Since 2009, the strategy has been used as a guiding framework to develop a research strategy in the Regional Office for the Americas, leading to the endorsement by the 49th Directing Council of PAHO (61st session of the WHO Regional Committee for the Americas) of PAHO's Policy on Research for Health.¹ Work is under way to develop a research strategy in the Regional Office for the Eastern Mediterranean, and the Regional Office for Africa is building on the framework for implementing the Algiers Declaration to strengthen research for health (2008).² In the remaining regional offices the development of a strategy for research remains dependent on the resolution of a number of personnel issues.

30. The Secretariat is currently mapping research priorities and developing tools for good practice in setting the research agenda. In addition, the strategy framework has been utilized to inform the creation of specific agendas for research, including the following: influenza; child health in support of Millennium Development Goal 4; tuberculosis and HIV in resource-limited settings; radiation risk assessment in medical exposures; and prevention and control of noncommunicable diseases.

31. Data on research associated with WHO are being collected for the period 2008–2009. They will be added to the data for 2006–2007 and made available through a research portal, thus facilitating improved coordination and management of research in the Organization.

32. A public access policy for WHO will be developed so that the dissemination, utilization and impact of WHO publications can be improved. Work will also begin on the development of a code of good research to strengthen and improve the quality of research practice within WHO.

33. Several requirements have been identified as being critical for the successful implementation of the strategy on research for health, namely: effective governance within WHO, good collaboration with partners, and adequate staffing and funding. The Bill & Melinda Gates Foundation and the Wellcome Trust have provided support for the development of the strategy. This funding ends in October 2010.

EVALUATION

34. An evaluation framework has been developed which provides an impact-focused approach for assessing achievement of the strategy's vision, mission and goals. This framework has been developed in conjunction with the corresponding framework for the global strategy and plan of action on public health, innovation and intellectual property.

35. The evaluation framework provides an approach for monitoring implementation of the elements of the strategy, as well as for evaluating the impact of the changes and initiatives resulting from implementation.

¹ Resolution CD49.R10.

² See document AFR/RC59/5.

36. The framework organizes the elements of the strategy into distinct components – including inputs/activities, outputs, outcomes and impacts – and defines various indicators to be tracked for each component, including the indicators defined in the WHO’s Medium-term strategic plan 2008–2013.

GLOBAL MINISTERIAL FORUM ON RESEARCH FOR HEALTH

37. Building on the achievements of the Mexico Ministerial Summit on Health Research in 2004, and responding to resolution WHA60.15, WHO and five partners convened the Global Ministerial Forum on Research for Health (Bamako, 17–19 November 2008) with the theme “Strengthening research for health, development and equity”. The Forum provided an opportunity to review progress since the Mexico Ministerial Summit, to identify current health challenges that could be tackled through more research, and to look at future needs and challenges.

38. As with the strategy, the Forum placed research and innovation within the wider context of research for development. It also generated specific recommendations and commitments, culminating in a plan of action to strengthen research in support of health, development and equity.

ACTION BY THE HEALTH ASSEMBLY

39. The Health Assembly is invited to adopt the resolution recommended by the Executive Board in resolution EB124.R12.

ANNEX

DRAFT WHO STRATEGY ON RESEARCH FOR HEALTH**CONTEXT AND RATIONALE****Research, global health and WHO**

1. This draft strategy sets out how to strengthen WHO's involvement in research for health and the consequent role of research within WHO. It recognizes that research is central to progress in global health and identifies ways in which the Secretariat can work with Member States and partners to harness science, technology and broader knowledge in order to produce research evidence and tools for improving health outcomes.
2. In all Member States, increasing demands are being placed on research to provide opportunities for resolving current and emerging health problems. In meeting the challenge of resolving priority problems across the spectrum of public health – whether it be tackling diseases of poverty, responding to the global epidemiological transition to chronic diseases, ensuring that mothers have access to safe delivery practices, or preparing for global threats to health security – research is indispensable.
3. In a global environment of competing demands for limited resources, it is especially important that health policies and practices should be informed by the best research evidence. The fundamental importance of research for WHO is identified in Article 2 of the Constitution of the World Health Organization; further, in the Eleventh General Programme of Work 2006–2015, the harnessing of knowledge, science and technology is highlighted as one of seven priority areas.
4. The Eleventh General Programme provides a global health agenda for the Organization, its Member States and the international community; however, although the value of research is widely recognized, exploiting research optimally to resolve priority health problems is not a straightforward matter. The complex nature of the health problems confronting societies, the rapid advances in knowledge and technologies related to health, the shifting expectations and concerns of the public in respect of research, and changes in the organization and management of research within and across countries, are among the many factors that must be taken into account.
5. Importantly, much progress has been made in recent decades. In parallel to the growing importance attached to health globally, attention is increasingly being focused by the broader research community on the health problems of the poor and disadvantaged. Significant research efforts, involving public–private partnerships and other innovative mechanisms, are being concentrated on neglected diseases in order to stimulate the development of vaccines, drugs and diagnostics where market forces alone are insufficient. Likewise, shared vulnerability to global infectious threats such as severe acute respiratory syndrome and avian influenza has mobilized global research efforts in support of enhancing capacity for preparedness and response in the areas of surveillance, rapid diagnostics and development of vaccines and medicines.
6. In addition to this progress, there is growing awareness that research systems are not responding optimally to the diverse demands that they face. Investments in health research are insufficient; further, they are not appropriately directed towards tackling priority health problems. In addition, when complex challenges are being met, such as tackling food insecurity or the effects of climate

change, there has been a failure to draw on resources available for research in other sectors. Low-income countries are faced with a diverse range of donor-driven research agendas that often weaken national priorities, and many countries are facing significant challenges in training and retaining researchers.

7. Work in support of the ethical review and public accountability of research is not keeping pace with best practices. The opportunity of creating a shared framework for storing and sharing research data, tools and materials has not been seized with the same energy in the area of health as it has in other scientific fields, and policy-makers are neither contributing to research priorities nor using evidence to inform their decisions.

8. In view of the rapid changes taking place in public health and research, there is an urgent need for a systematic and comprehensive approach to organizing and managing research for health. This draft strategy seeks to define WHO's role in satisfying that need.

WHO's role in research for health

9. The Eleventh General Programme of Work identifies six core functions of WHO, one of which is: "shaping the research agenda and stimulating the generation, translation and dissemination of valuable knowledge". The other five functions – which involve providing leadership, setting norms and standards, articulating evidence-based policy options, providing technical support and monitoring the health situation – all require strong research competencies among the staff of the Secretariat.

Definitions and concepts

10. The term "research for health" reflects the fact that improving health outcomes requires the involvement of many sectors and disciplines. As identified in the work of the Global Forum for Health Research, research of this type seeks to perform the functions of understanding the impact on health of policies, programmes, processes, actions or events originating in any sector; of assisting in developing interventions that will help prevent or mitigate that impact; and of contributing to the achievement of the Millennium Development Goals, health equity and better health for all. Research for health covers the full spectrum of research, which spans the following five generic areas of activity:

- measuring the magnitude and distribution of the health problem¹
- understanding the diverse causes or the determinants of the problem, whether they are due to biological, behavioural, social or environmental factors
- developing solutions or interventions that will help to prevent or mitigate the problem
- implementing or delivering solutions through policies and programmes
- evaluating the impact of these solutions on the level and distribution of the problem.

¹ The term "health problem" is used in this strategy to refer to a major cause of ill-health or health inequity, whether actual or prospective. It includes the following: diseases such as HIV/AIDS or mental illness; risks to health such as obesity, poverty or climate change; and obstacles to effective systems performance, such as unsafe care or inequitable financing of health services.

11. The draft strategy also draws on a systematic framework for health research systems, as presented in the *Bulletin of the World Health Organization* in the November 2003 issue.¹ In this framework four core functions are defined for research systems, namely: stewardship; financing; creating and sustaining the research workforce and infrastructure; and producing, synthesizing and using knowledge.

Development of the draft WHO strategy on research for health

12. In resolution WHA60.15 the Health Assembly requested the Director-General to develop a strategy for the management and organization of research activities within WHO. This represents an opportunity for the Organization to: (1) review and revitalize the role of research within WHO; (2) improve its support to Member States in building health research capacity; (3) strengthen its advocacy of the importance of research for health; and (4) better communicate its involvement in research for health.

13. The WHO strategy on research for health was developed by the Secretariat by means of an 18 month consultative process. The process involved staff at headquarters and regional and country offices, as well as key partners (including funding bodies, the private sector, the research community and nongovernmental organizations). An external reference group provided extensive comments on successive drafts of the strategy, as did ACHR.

14. Aware that a realistic, forward-looking strategy requires an informed understanding of past successes and failures and current realities, development of the strategy was also informed, inter alia, by:

- a historical review of research at WHO
- previous Health Assembly resolutions on research
- a comprehensive survey and analysis of current research activities across the 34 departments of the Secretariat and the special research programmes and centres.²

As requested by the Health Assembly in resolution WHA61.21, attention was given to ensuring that the development of WHO's research strategy reflected, as appropriate, the global strategy and plan of action on public health, innovation and intellectual property.

DRAFT WHO STRATEGY ON RESEARCH FOR HEALTH

Research in the service of health

15. This comprehensive, Organization-wide strategy will underpin all the Secretariat's work.

¹ *Bulletin of the World Health Organization* 2003, **81**(11): 815–820.

² "Overview of Research at WHO 2006/07", available online at http://www.who.int/rpc/research_strategy/en/index.html.

16. The **vision** for the strategy is that decisions and actions to improve health and enhance health equity are grounded in evidence from research. The **mission** of the strategy is for the Secretariat, Member States and partners to work together to harness science, technology and broader knowledge in order to produce research-based evidence and tools for improving health.

17. The strategy reflects WHO's diverse roles and responsibilities in respect of research for health: the Organization works to provide stewardship and advocacy, convene funders, catalyse change, and build capacity; and it acts as a communicator, producer and user of research.

18. The strategy calls for changes in order to improve capacity to access and make use of existing research findings; and in order to better understand, and mobilize support for, the research needed for improving health and health outcomes.

19. In the strategy it is also recognized that achieving health goals requires a more effective involvement on the part of WHO with the broader global research community and funders of research, and with sectors other than health.

Guiding principles

20. The WHO strategy on research for health is grounded in three principles that will guide achievement of the goals and the realization of the vision.

Quality – WHO commits itself to high-quality research that is ethical, expertly reviewed, efficient, effective, accessible to all, and carefully monitored and evaluated.

Impact – WHO gives priority to research and innovation that has the greatest potential to improve global health security, accelerate health-related development, redress health inequities and help to attain the Millennium Development Goals.

Inclusiveness – The Secretariat undertakes to work in partnership with Member States and stakeholders, to take a multisectoral approach to research for health, and to support and promote the participation of communities and civil society in the research process.

Goals

21. Five interrelated goals have been defined to enable WHO to achieve the vision of the strategy.

- **Organization** – this involves the strengthening of the research culture across WHO
- **Priorities** – this concerns the reinforcement of research (at national, regional and global levels, and within WHO) in response to priority health needs
- **Capacity** – this relates to the provision of support to the strengthening of national systems for health research
- **Standards** – this concerns the promotion of good practice in research, drawing on WHO's core function of setting norms and standards
- **Translation** – this involves the strengthening of links between the policy, practice and products of research.

22. WHO needs to show it can lead by example, which is why the **Organization** goal is the foundation of the strategy. It is an essential part of the other four goals, defining the Secretariat's interactions with Member States and partners in the activities for achieving each goal.

23. The current global health situation is complex and characterized by an array of new and existing health challenges, many of which call for greater efforts in the area of research. Given the competing needs of the different areas of research, it is essential not only to mobilize sufficient resources for research but also to ensure their careful distribution. WHO's roles, in respect of the **priorities** goal, are as follows: to offer assistance in identifying, in a timely manner, priorities for research for health, especially those that can benefit the poorest members of society; and to mobilize all stakeholders in order to provide an effective response.

24. Strengthening Member States' national systems research in support of health – the **capacity** goal – is essential for improving health delivery, health security and health outcomes. Efforts to attain this goal need to focus on institutional capacity building in order to develop the necessary human resources and physical infrastructure for conducting research. Attention must also be directed towards satisfying the need for policy leadership, financing, and standards for research.

25. No country is self-sufficient in its research capacity, so Member States need to be able to share research outputs. Effective and equitable sharing requires internationally agreed norms and standards for research; with this in mind, the **standards** goal concerns the promotion of good practice in research by means of work to establish agreements on good practices, scientific benchmarks, ethical guidelines and accountability mechanisms. The achievement of this goal is essential for winning public support and confidence.

26. Finally, if the ultimate objective of research for health is to improve health outcomes, the generation of knowledge alone is not sufficient: knowledge has to be harnessed in order to inform policy and practice and develop products. In establishing the **translation** goal, WHO aims to facilitate a more productive interface between researchers and those who use evidence, including policy-makers and practitioners at national, regional and global levels.

27. A summary of the outputs generated in achieving each goal is shown in Table 1.

ORGANIZATION GOAL

28. The Organization goal is to strengthen the research culture across WHO.

The challenge

29. Consultations undertaken in developing the strategy generated a clear message, from both within the Organization and beyond, that WHO needs to undertake a major change in behaviour in order to keep pace with the evolving research environment and communicate better the nature of its own research activities.

30. The internal obstacles that WHO must overcome, identified during the consultation process, include:

- the lack of a common, well-articulated vision for research for health

- the fragmented and uncoordinated nature of research activities across the Organization
- the inconsistent use of evidence in establishing policies, programmes, and global norms and standards
- the absence of standards of research practice for staff producing and using research
- the insufficient number of staff with appropriate research skills and an adequate understanding of research
- the lack of a dedicated budget to support research activities
- the bureaucratic and financial arrangements that many research partners find awkward
- the lack of sufficient incentives and encouragement to ensure that staff are involved and that they improve their competencies in research or research-related activities.

31. The activities related to the **Organization** goal will tackle these obstacles by improving research practices in accordance with the strategy's three principles: quality, impact and inclusiveness. The aim is for WHO to have effective governance mechanisms for supporting the production, dissemination and use of research evidence both within the Organization and beyond.

32. WHO's guidance and programmes will therefore need to be informed by the best available research evidence. Further, the research activities with which WHO is affiliated will need to be aligned with a code of good research practice. A general understanding will also be required, both within WHO and beyond, of the central role played by research evidence in the Organization's activities and of the broader role of the Organization in research.

Actions to achieve the goal

33. Working with Member States and partners, the Secretariat will:

- (a) establish appropriate structures for keeping abreast of latest developments in knowledge management, interaction with the global research community, and leading, managing and coordinating research within WHO, and for maintaining accountability for such research; and secure the resources needed to support the implementation and evaluation of this strategy;
- (b) develop and implement a WHO code of good research practice for those of its staff involved with research and the use of evidence;
- (c) strengthen existing mechanisms for good research practice, including:
 - (i) ethical and peer review structures and procedures
 - (ii) the appropriate use of evidence to inform the development of guidelines
 - (iii) the regular review of core policies and programmes in the light of new evidence;

- (d) enhance the research-related competencies of relevant professional staff by applying designated criteria in their recruitment, by providing on-the-job training, and by identifying incentives for good research performance that are linked to regular evaluations;
- (e) improve the management and coordination of WHO-affiliated research, and develop a publicly accessible repository for all such research in order to improve access to the knowledge thus derived;
- (f) improve performance in research partnerships by:
 - (i) reviewing financial, legal and administrative processes for working with partners; and
 - (ii) seeking contacts with a broader network of partners across all sectors that influence research for health;
- (g) improve communication – both throughout the Secretariat and with Member States, partners and the public – regarding WHO’s involvement in research, submitting regular reports, including reports on the monitoring and evaluation of this strategy.

Expected results

34. Achievement of this goal should produce the results described below:
- WHO Secretariat staff who understand, value and use evidence better in planning, implementing and evaluating programmes and activities, and in setting norms and standards
 - WHO-supported research that systematically adheres to the Organization’s code of good research practice and is subject to scientific and, where appropriate, ethical review; guidelines and recommendations that are systematically evidence-based, and articles that are systematically peer reviewed
 - clear communication of WHO’s role in research and of the role of research within WHO
 - general recognition that WHO is a credible, evidence-based organization; a leader in supporting or performing high-quality research; a champion of the need for research; and an effective partner in facilitating high-quality research at global, regional and country levels
 - the allocation by WHO of sufficient resources to support core functions necessary for the implementation of the strategy
 - translation of the most up-to-date knowledge and evidence into advice, norms and guidelines by the WHO Secretariat.

PRIORITIES GOAL

35. The priorities goal is to champion research that addresses priority health needs.

The challenge

36. Each country has a responsibility to develop its own agenda for research in order to respond to the health needs important to its population within its own social, political and environmental setting. In addition, there are present and emerging health challenges that must be met through national and cross-country research. Such challenges include preparing for and responding to pandemics, gaining an understanding of the impact of climate change and developing new drugs, vaccines and diagnostics for widespread diseases such as malaria, HIV/AIDS and tuberculosis.

37. However, agreeing on research priorities for improving health and taking action to pursue them remains a significant challenge. The obstacles responsible for this include imbalances in national research priorities, the historical inequity in the distribution of global research funding (with only 10% of financing for global health research allocated to health problems that affect 90% of the world's population) and the difficulty of making the case for financing research in the face of competing priorities.

38. In recent years, however, the mobilization in support of the Millennium Development Goals and the recognition that good health is a foundation of development, have encouraged an impressive upsurge in research for global health. Diverse stakeholders – including governments, civil society, philanthropic bodies and industry – have mobilized significant resources through numerous public–private partnerships and multilateral research initiatives. The Health Assembly has adopted the global strategy and the agreed parts of the action plan on public health, innovation and intellectual property rights. This instrument places emphasis on identifying research and development priorities for tackling diseases of poverty, and identifies the relevant global financing mechanisms.

39. National research capacity needs to be aligned with a complex global environment and the existence of diverse sources of funding for research.

40. Throughout the consultations for this strategy, the Secretariat, working with Member States, donors and key stakeholders, was consistently requested to make greater use of its convening power in order to draw attention to research for health in neglected areas, and to build consensus and catalyse new actions in support of such research.

41. When research capacity is low, WHO is expected to promote collaboration across countries and within regions in order to create a more effective research effort in response to shared health challenges. In such circumstances, as in the past, WHO will develop special programmes for research in order to stimulate activity, leverage resources and encourage innovation.

Actions to achieve the goal

42. Working with Member States and partners, the Secretariat will:

(a) ensure that mechanisms are in place for synthesizing data on gaps in research relating to current health- and health system-related challenges at national and global levels;

(b) convene high-level consultations to identify, and build consensus on, the priorities to include in global agendas for research for health and the financing necessary for implementing the relevant activities;

- (c) produce a report every four years on global priorities for research with an assessment of the alignment of financial and human resources with research agendas;
- (d) develop comprehensive research agendas for specific priority areas and develop plans for mobilizing the necessary resources;
- (e) advocate support for research areas, research groups and institutions that are working to close critical gaps in research agendas in support of global research priorities; and
- (f) improve the coherence of WHO's research activities by establishing mechanisms for the periodic review of the portfolio of research agendas, including decision criteria to guide decision-making concerning the initiation, adjustment and winding down of programmes.

Expected results

43. Achievement of this goal should produce the results described below:
- greater awareness of, and action on, research priorities at a national level
 - greater awareness of, and action on, research priorities at regional and global levels
 - improved cooperation and coordination among research funders and other key partners to align global resources so that priority needs for research for health can be met
 - more robust agendas for research on specific priority areas that are facilitated by WHO, and greater coherence and clarity concerning WHO's involvement therein.

CAPACITY GOAL

44. The capacity goal is to support the development of robust national health research systems.

The challenge

45. Robust and vibrant national health research systems in all countries are critical for accelerating the achievement of national and global health goals, namely: better health, improved health equity, and fairer, safer and more efficient health systems.

46. There has long been an understanding of the basic prerequisites for health research systems, namely: clear national research policy, leadership, a capable research workforce, adequate financing, priority-setting mechanisms, strong regulatory frameworks and structures (including ethical oversight), well-equipped research institutions, effective information systems and dissemination plans. Nevertheless, in many countries, particularly low- and middle-income countries, health research systems remain seriously under-resourced and poorly managed, and health information systems are often absent or inadequate.

47. Such deficiencies are evidence of the following: an insufficient appreciation at a political level of the value of research in accelerating health improvement and development; the general absence of coordinated and sustained efforts to build national research systems; and the inability of fragmented

research efforts driven by external actors to align themselves with strategies for strengthening national capacities.

48. In consultations for the development of this strategy, the strengthening of national systems for health research and the monitoring of their performance were deemed top priorities for WHO, as part of its key role of providing greater and more visible leadership.

49. WHO needs to foster collaboration between researchers and research institutions in low-, middle- and high-income countries through regional and global networks.

50. The coordination of activities to build research capacity will also need to be improved throughout the Organization. Such activities will need to be aligned with the priorities identified in Member States, and WHO will need to encourage a similar alignment on the part of other actors.

Actions to achieve the goal

51. Working with Member States and partners, the Secretariat will:

- (a) strengthen its advocacy in support of both research and the development of robust national systems for research for health;
- (b) develop tools and guidelines for strengthening national capacity in the four main functions of national systems for research for health (stewardship; financing; creating and sustaining resources; and producing, synthesizing and using knowledge);
- (c) continue to promote the development of the comprehensive systems for health information that are necessary in order to support national research priorities;
- (d) develop and use standardized indicators in order to: enable self-reporting of the performance of national health research systems; monitor global progress in strengthening capacity; and evaluate the effectiveness of particular approaches to capacity building;
- (e) facilitate technical assistance to support the strengthening of national systems for health research;
- (f) build institutional capacity to report and share good practice, by facilitating regional and global networks, and with the involvement of WHO collaborating centres;
- (g) maximize the impact of efforts in Member States to build research capacity by improving the alignment of such initiatives across WHO's research programmes and activities.

Expected results

52. Achievement of this goal should produce the results described below:

- greater investment in research for health by countries and other actors
- the existence in all countries, especially low- and middle-income ones, of national research strategies that articulate clear research priorities, credible capacity-building programmes, and explicit terms of engagement for external stakeholders

- the alignment of external stakeholders' research investments with national research strategies
- the development and use of WHO guidelines on research capacity-building, including indicators for measuring progress
- progress reports on national research capacity and activities made every two or three years by the Secretariat through WHO's governing bodies and information databases
- networks of researchers and communities of practice that actively exchange experiences and identify good practices in the area of capacity building for research
- higher-quality, better-coordinated research activities through the alignment with country needs of WHO's efforts to build national research capacity.

STANDARDS GOAL

53. The standards goal is to promote good research practice.

The challenge

54. Setting international norms, standards and guidelines is one of WHO's core functions, and an activity that the Organization is uniquely placed to perform. The norms, standards and guidelines related to research are applied to govern, manage and improve the quality of research; to address inefficiencies in the research process; and to improve access to information. They are essential to maintaining public trust, confidence and participation in research.

55. Member States, international organizations, stakeholders and the public expect WHO to do more to promote best practices in research. There is also an increasing demand for more accountability and transparency in the conduct of research.

56. One challenge is to develop a methodology that is rigorous, systematic and transparent, with clear criteria for deciding when WHO should work on a new standard or guideline, how that standard or guideline should be developed, and which stakeholders need to be involved. Such a methodology will need to accommodate differences in social and cultural contexts while protecting the rights and welfare of all participants in the research process.

57. Another challenge is to improve the implementation of, and compliance with, existing research standards. The standards concerned include those related to ethics, ethics review committees and clinical trial registration, and laboratory biosafety and biosecurity. Although WHO cannot enforce compliance with standards (except, where applicable, for its own staff), it has an influential role to play in accelerating progress towards the development and adoption of global standards for best practices in research.

58. There is also a need to establish acceptable criteria for the use, for example in the development of guidelines, of evidence that could not be generated using conventional research approaches such as randomized trials.

Actions to achieve the goal

59. Working with Member States and partners, the Secretariat will:
- (a) develop a systematic method for selecting, developing, adopting and evaluating new standards and norms in line with priorities in research for health;
 - (b) develop, in line with the guiding principles of this strategy, norms and standards for best practice in the management of research to cover, for example: ethical and expert review and the accreditation of ethical review committees; the reporting of research findings; the sharing of research data, tools and materials; the registration of clinical trials; and the use of evidence in the development of policy, practice and products;
 - (c) continue to facilitate the development of, and set standards for, publicly accessible registries of clinical trials; and
 - (d) engage in technical cooperation with Member States in order to enable them to adapt and implement norms and standards for research, and monitor subsequent adherence and compliance.

Expected results

60. Achievement of this goal should produce the results described below:
- strengthened public support for and trust in health and medical research
 - implementation by WHO of an improved method for selecting, developing, adopting and evaluating norms and standards related to research
 - improved quality, efficiency, transparency, accountability and equity in the research process as a result of greater awareness, acceptance and implementation of standards for the management of research, and compliance therewith
 - improved acceptance of, and compliance with, ethical principles in the conduct of research; and the establishment of standards for accreditation of ethics committees
 - adoption by all countries of the registration of clinical trials according to WHO standards.

TRANSLATION GOAL

61. The translation goal is to strengthen links between research, policy and practice.

The challenge

62. Consultations for the development of this strategy revealed both the extent to which evidence fails to inform policy and practice, and the degree to which the research agenda fails to respond to policy needs. Referred to as “research translation”, the dynamic interface that links research with policy, practice and product development is increasingly seen as a priority area for research. In

addition, new and improved methods are required for communicating health information and evidence effectively to different target audiences across multiple sectors, levels and languages.

63. A significant barrier to achieving this goal is the global inequality of access – in respect of research – to data, tools, materials and literature, which may arise due to restrictions placed on their reuse through the application of copyright and intellectual property. There are various standards that exist for information systems and interoperability but few that are consistently applied in the area of public health informatics.

64. WHO, with its reach into countries and contacts with researchers, policy-makers, practitioners and civil society, can play a unique role in advocating for greater resources in support of research into this knowledge interface. WHO needs to facilitate access to quality data, consolidated evidence and authoritative health information and guidelines in order to support the dialogue between policy-makers and public-health implementers. One WHO-led initiative, the Evidence-Informed Policy Networks initiative, is beginning to provide an approach to meeting these challenges.

65. WHO has contributed to improvements in this area through initiatives such as the Health InterNetwork Access to Research Initiative and the Reproductive Health Library, through the creation of the International Clinical Trials Registry Platform, and by allowing public access to the Organization's databases. However, access to research continues to be limited by a range of factors – including the lack of standards in health informatics, and problems of affordability and language – and the Organization needs to do more to involve itself fully with the open access movement.

Actions to achieve the goal

66. Working with Member States and partners, the Secretariat will:

- (a) identify promising translation activities through evaluation, and promote their use to support decision-making based on the best available research evidence;
- (b) promote the use of effective models of technology transfer and the evaluation of promising models in order to support the timely creation of new products and services in Member States;
- (c) promote and evaluate platforms for translating research in support of translation capacity and evidence-informed policy-making in Member States;
- (d) work towards the creation of, and compliance with, international standards on health informatics for research;
- (e) develop, strengthen and evaluate mechanisms for the systematic elaboration of evidence summaries and guidance for citizens, patients, clinicians, managers and policy-makers in Member States, ensuring that such mechanisms are adapted for the target audience and regularly updated, and that their impact is evaluated;
- (f) systematically analyse barriers and encourage the creation of mechanisms to promote greater access to research results, or the enhancement of existing ones;

(g) adopt and articulate a WHO position on open access to research outputs; and advocate for the following: databanks, repositories and other mechanisms for maximizing the availability of health-related research findings that are freely accessible in the public domain.

Expected results

67. Achievement of this goal should produce the results described below:

- a situation in which decision-makers act as informed consumers of research, using available evidence and knowledge more effectively, creating evidence-informed policy and translating that policy into practice and products
- establishment of institutional mechanisms for recording, and sharing lessons learnt from, research focused on the demand for research and the way evidence is used in policy and practice at country level
- performance of research activities in order to understand the translation of evidence into policy and practice and the recognition of the important contribution that such research can make to research for health
- creation and broad application of internationally agreed standards for the collection, storing and sharing of health informatics/tools and data
- establishment of comprehensive repositories that include WHO's research literature that are well stocked, regularly updated and well used
- development of existing repositories of systematic reviews, or the establishment of new ones, in order to meet the priority health needs of low- and middle-income countries
- easy access on the part of both producers and users of research to reliable, relevant, appropriate and timely information that is provided in a format and language they understand
- researchers who are more responsive to the demand side, including to the health-related research questions of policy-makers (in health and other sectors), practitioners and civil society
- a more prominent role played by WHO in identifying effective health interventions and strategies, and in promoting their implementation in Member States.

Table 1. Summary of outputs for the WHO strategy on research for health

<p>Biennial report to the Health Assembly, indicating:</p> <ul style="list-style-type: none"> – progress in implementing and evaluating the research strategy and related expenditures (Organization goal)¹ – global progress in strengthening national health research systems as measured using standardized indicators at the country level (priorities goal) – the adaptation/adoption of norms and standards by Member States and the results of audits examining adherence to them (standards goal)
<p>Biennial report to the Director-General, indicating:</p> <ul style="list-style-type: none"> – the processes, coverage and impact of: <ul style="list-style-type: none"> • WHO’s revised recruitment procedures and incentives, and the Organization’s training programme on research and research use (Organization goal) • WHO’s ethical review committees (standards goal) • WHO’s guideline review committee (standards goal) • WHO’s programme review committee (Organization goal) – implementation of WHO’s code of good research practice, including the results of periodic audits of WHO research practices (Organization goal) – whether, and if so, by what means, improvements have been made in the mechanisms by which WHO acts as a research partner (Organization goal) – research agendas with which WHO is directly involved, or for which it is acting as an advocate, their continued appropriateness for WHO, and their coherence as a whole within WHO (priorities goal) – WHO’s advocacy efforts related to national health research systems (capacity goal) – the number of country cooperation strategies that involve multi-partner technical cooperation to support the strengthening of national health research systems (capacity goal) – alignments across the efforts to build research capacity with which WHO is affiliated (capacity goal)
<p>Norms and standards</p> <ul style="list-style-type: none"> – Norms and standards for research (standards goal) – WHO’s code of good research practice (Organization goal) – Guidelines for building national capacity in respect of the four main functions of national health research systems (capacity goal)

¹ The goal to which the output is most closely related is indicated in brackets.

Public reports and resources

- Public report every four years (co-published with partners) on global research priorities, comprehensive research agendas for each priority, and the alignment of financial and human resources with these agendas (priorities goal)
- Biennial public report on research at WHO (Organization goal)
- Public report on WHO's position on open access to research outputs and on mechanisms to record research outputs that are not currently being recorded elsewhere (translation goal)
- Reports on lessons learnt from efforts to build research capacity, including evaluations of the effectiveness of particular approaches using standardized indicators (capacity goal)
- Reports on the lessons learnt from using different interventions to support policy and practice in Member States, based on the best available research evidence, using different models of technology transfer and of research-translation platforms (translation goal)
- Publicly accessible research registry for all research with which WHO is affiliated (Organization goal)
- Publicly accessible clinical trials registries (standards goal)
- Up-to-date, optimally packaged evidence summaries that are context-sensitive, and guidance in areas of public health need (translation goal)

IMPLEMENTATION

68. The Eleventh General Programme of Work 2006–2015 provides the WHO Secretariat, Member States and the international community with a global health agenda that stems from an analysis of the current global health situation. After setting the broader global health agenda, the General Programme of Work then describes WHO's comparative advantages, its core functions, the main challenges it faces and its priorities for the future. These priorities are further developed in the six-year Medium term strategic plan 2008–2013, which defines 13 strategic objectives for the Secretariat and Member States.

69. The Secretariat will work with Member States and partners to plan the implementation of the WHO strategy on research for health in support of the Medium-term strategic plan within the Eleventh General Programme of Work.

70. For the regional offices, the WHO strategy on research for health sets out a framework to guide the formulation of future regional research strategies.

71. The implementation plans will be realistic and will define clear roles, responsibilities, resources required, outcomes and impacts within a timetable as indicated in the evaluation framework. The plans will build on the research activities already under way in more than 34 WHO programmes, alliances and networks in support of the strategy's goals.

72. A plan for implementing the strategy will be incorporated into the Organization's operational arrangements and workplans and, in discussion with Member States, integrated into country cooperation strategies.

73. A report on progress will be submitted to the Health Assembly on a biennial basis, with the first report scheduled for 2012.

CRITICAL ISSUES IN IMPLEMENTATION

Governance within WHO

74. In order to ensure successful implementation of the strategy, the Organization will need to develop appropriate mechanisms for improving strategic and operational efficiency across the WHO's portfolio of research activities. One possible mechanism would involve the creation of thematic groups working across the Organization in areas such as research capacity building and knowledge management. Such new mechanisms will be complemented by a thorough review and, where appropriate, revitalization of existing mechanisms. This will include a review of the role of technical and advisory committees, and a possible reconsideration of the role of ACHR, both globally and in the regions.

Working with partners

75. In implementing the strategy, the Secretariat will also need to collaborate effectively with the dedicated research partnerships to which WHO is linked, but which are characterized by independent governance. The partnerships concerned include the following: the Alliance for Health Policy and Systems Research; the UNDP/UNFPA/WHO/World Bank Special Programme of Research, Development and Research Training in Human Reproduction; the Initiative for Vaccine Research; the UNDP/World Bank/WHO Special Programme for Research and Training in Tropical Diseases; the Council on Health Research for Development; and the Global Forum for Health Research. During the implementation process, the value of providing such partnerships with a governance structure that is more aligned, or even shared, with that of the WHO research strategy will be examined; modifications will be made to existing relationships in line with the actions for achieving specific goals.

76. In addition to collaborating with existing partnerships, in implementing the new strategy WHO is expected to work more effectively with key research partners, including industry, civil society, foundations and academia.

Staffing

77. The strategy's success will be largely contingent upon the efforts of WHO technical staff across the Organization. The organizational goal of the strategy provides several recommendations related to improving the research competencies of WHO staff through strengthened support for research, continued learning and changes to the recruitment and evaluation processes as appropriate. Particular attention will need to be paid to identifying the appropriate response for staff at country level. Once implemented, the code of good research practice will provide a common approach and a set of minimum standards for the research activities of staff wherever they are working. Staff will also be needed for ensuring the effective performance of functions related to cross-cutting thematic groups, ethical and guidelines review, standard setting and communications.

Funding

78. About 80% of the budget for conducting or commissioning research directed through programmes at headquarters (about US\$ 200 million per biennium) is financed through voluntary contributions. The WHO strategy on research for health aims to improve the quality of research outputs by influencing the way in which these resources are spent, rather than by increasing the level of financing.

79. Nevertheless, implementation of this strategy (and of the global strategy and plan of action on public health, innovation and intellectual property) requires an adequately resourced central secretariat responsible for, among other things, cross-cutting themes, communications and evaluation. The funding of the secretariat's activities will require core budget support as funds from either the specific research activities of WHO departments or from voluntary contributions are unlikely to be available. The amount of money to support the secretariat function is modest, representing less than 5% of total research expenditure per biennium. Resources for these core functions will be fully budgeted in the Programme budget 2010–2011.

EVALUATION

Overview

80. Evaluation is an integral part of the WHO strategy on research for health, and an evaluation framework has been developed in order to provide an impact-focused approach for assessing the achievement of the strategy's vision, mission and goals. A report providing details of the framework is available upon request.

81. More specifically, the framework will provide an approach for:

- monitoring implementation of the elements of the research strategy
- evaluating the impact of the changes brought about by implementation of the strategy.

82. The evaluation framework for the WHO strategy on research for health covers both its implementation and its constituent elements, namely, the principles, goals, actions and expected results.

83. The framework has been developed in line with best practices in evaluation; it will:

- be focused on the shared goals and activities of the Secretariat, Member States and partners, as outlined by the research strategy
- give a balanced picture of progress towards realizing the shared vision for the Secretariat, Member States and partners
- be efficient, utilizing existing indicators and mechanisms wherever possible to minimize the reporting burdens of the Secretariat, Member States and partners.

Structure of the evaluation framework

84. The evaluation framework organizes the elements of the WHO strategy on research for health, into inputs/activities, outputs, outcomes and impacts (known as a “logic model”); it also defines indicators to be tracked for each of these components (see below).

85. Although the strategy’s ultimate impact should be improvements in health and health equity (such as those articulated in the Millennium Development Goals), identifying the contribution of research for health generally, and of the strategy in particular, in achieving wider health impacts represents a major challenge. Given the difficulties associated with predicting circumstances in which case studies of health impact would be feasible, the evaluation framework model focuses on impacts that can be evaluated prospectively. The framework can be expanded further to include new indicators of health impact after the implementation phase has started.

Monitoring progress

86. One or more indicators have been developed for each input/activity, output, outcome and impact. Table 2 provides a list of indicators, which is for illustrative purposes only.¹

Table 2. List of indicators

<p>Impact</p> <ul style="list-style-type: none"> – Percentage of priority health needs for which up-to-date systematic reviews of the research literature were made available within one year of the need being identified (priorities goal) – Percentage of a random sample of clinicians in Member States who achieve a nationally defined target for adherence to select high-quality, locally applicable recommendations (translation goal)
<p>Outcomes</p> <ul style="list-style-type: none"> – Percentage, within a random sample, of WHO’s guidelines that are aligned with the best available research evidence (Organization goal) – Percentage of Member States (specifically, their principal delegates at the Health Assembly) that report general satisfaction with the nature of technical cooperation received in support of their national health research system (capacity goal)
<p>Outputs</p> <ul style="list-style-type: none"> – Biennial report on progress in strengthening national health research systems submitted to the Health Assembly (capacity goal) – Norms and standards for research published (standards goal)
<p>Inputs/activities</p> <ul style="list-style-type: none"> – At least 5% of WHO’s combined core and voluntary budgets allocated in support of research at WHO, including dedicated funds for the implementation and evaluation of the research strategy in the current biennium (Organization goal) – Percentage of Member States whose priority-setting processes have been drawn on to inform priorities in research for health (priorities goal)

¹ A full list of indicators will be provided in the document presenting the full evaluation framework.

87. Although indicators available through existing mechanisms have been identified wherever appropriate, new indicators to improve monitoring of selected elements of the research for health agenda have been proposed, where necessary. These new indicators generally concern outcome- and impact-related measures, which are directly linked to the goals of the strategy. A full description of these indicators and proposed mechanisms for monitoring implementation is presented separately in the full evaluation framework.

88. As suggested by the grouping of outputs in Table 1 above, the proposed reporting structures are of four types: governance-related indicators (to be compiled into a biennial report to the Health Assembly); management-related indicators (to be compiled into a biennial report to the Director-General); indicators for norms and standards and indicators for other public reports and resources. All reports will be publicly available on WHO's web site.

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