Beginning with the end in mind: Planning pilot projects and other programmatic research for successful scaling up
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January 2011
Introduction

Scaling up is attracting a great deal of attention in the international health and development fields. This concern is motivated by the fact that health interventions that could save lives and improve health are widely known but are often not implemented on a large enough scale to achieve the desired results. Pilot and other programmatic interventions, including demonstration projects, implementation or operations research, tests of policy changes, proof of concept studies, etc., in which health innovations are tested on a small scale often show impressive results. However, their influence tends to remain confined to the original target areas and their results are often not sustainable. One of the reasons for this failure is that the requirements of large-scale implementation are rarely taken into account at the time of pilot or field testing. This document argues that it is important to “begin with the end in mind”. It provides a set of recommendations for how projects can be planned and implemented in ways that set the stage for how successful interventions can be expanded and institutionalized.1

The recommendations presented here are based on the review of a large body of literature and field experience. They are addressed to researchers, policy planners, programme implementers, technical assistance providers and donors who seek to ensure that pilot or other programmatic research projects lead to lasting and larger scale impact. While no project will succeed in addressing all the recommendations that follow, the extent to which they are met will enhance the project’s scalability. The document is deliberately brief with the expectation that readers who wish to know more about conceptual frameworks for scaling up and lessons learned will refer to ExpandNet/WHO’s other materials2.

This guide contains a checklist of questions based on the recommendations provided here. The checklist provides a quick overview of the scalability of a project that is being planned, proposed or is in the process of implementation.

Background

This document is part of a series of guidance tools for scaling up developed under the umbrella of ExpandNet in collaboration with WHO (ExpandNet/WHOa; ExpandNet/WHOb, www.expandnet.net). ExpandNet is a network of public health professionals who are working in different regions of the world, seeking to improve the science and practice of scaling up. After extensive review of multiple literatures, and in collaboration with experts from country projects engaged in scaling up, ExpandNet/WHO first published a book with a conceptual framework and seven country case studies. This book was followed by the development of three tools: (1) a comprehensive practical guidance document; (2) a nine-step guide for developing a scaling-up strategy; and (3) a “20 questions” guide to support the development of scaling-up case studies. The present document complements these tools.

1 It should be noted that this document focuses exclusively on recommendations for how to plan pilot projects to enhance the likelihood of scaling-up success. It is not intended to address other issues of project or research design for which extensive guidance is available elsewhere, for example Fisher et al; Green and Kreuter; and Bartholemew et al.

2 See the ExpandNet website (www.expandnet.net); Simmons et al; ExpandNet/WHOa; and ExpandNet/WHOb.
The recommendations provided here build on the framework for scaling up which is presented in the other ExpandNet publications. One of the concepts from the framework which is applied throughout is the term “innovation”. It refers to the health interventions and/or other practices that are being tested in pilot or other programmatic research projects. ExpandNet’s tools all use the concept of innovation because the practices that are being tested are new in the local setting where they are being introduced, although they may have been utilized in other settings and may represent internationally accepted evidence-based best practices (Rogers). An innovation can consist of changing a technology or clinical technique, a teaching, or management or other institutional practice, introducing a product or any other desirable intervention or set of interventions ranging from simple to more complex.

How to use this document

The document will ideally be used in a participatory manner by the project team to ensure that the issues raised are considered from multiple perspectives and decisions are reached collectively about how to proceed in the specific local contexts. The following recommendations should guide reflection and discussion by the team, leading to a listing of specific steps that should be taken to enhance the project’s scalability. Many of the recommended actions should be conducted during the planning phase of the project and continue throughout its implementation. Repeated reflection on the extent to which project implementation conforms to recommendations or repeated review of the checklist in the course of a project will provide insights into what adaptations are needed to further enhance the potential for future sustainable scaling up.

1 Engage in a participatory process involving key stakeholders

The process of planning and implementing the project should involve a range of stakeholders and champions including policymakers, managers, technical experts, service providers, and members of civil society and beneficiary communities. Engaging members of the organization(s) expected to implement the innovation on a larger scale is more likely to produce interventions that fit and are sustainable. Participatory approaches generate political commitment and build ownership. Those who own the innovation are more likely to support its scaling up than those who had little input into its planning.

Ideally the initial testing should be led by the organization that will be implementing scaling up in the future. Where this is not the case, it is important that representatives of the organization participate on the project’s planning and implementation team. Feedback and input from civil society and beneficiary communities is also needed throughout to ensure that the innovation is consistent with community perspectives and needs.

Specifically the team planning and implementing the pilot project or other research should:

3 The importance of participatory approaches to project planning has been widely discussed in the literature, for example: R. Chambers; Varvasovsky and Brugha; Kim; and Askew.
• Assess who are relevant current and future stakeholders
• Include key individuals from the future implementing organization(s) on the research/planning team
• Engage early and regularly in policy dialogues with key stakeholders about the intervention
• Participate in networks, alliances or partnerships that are relevant to the innovation and the process of scaling up
• Promote wider awareness of the project through presentations at national meetings, conferences or seminars
• Seek input on the design and obtain feedback on the process of implementation from technical experts, policy makers, programme managers, service providers, civil society, and beneficiaries

2 Ensure the relevance of the proposed innovation

Innovations should address important public health problems, be based on relevant evidence and have the potential for significant public health impact. They should promise substantial improvements in health systems effectiveness, efficiency and equity. Feasibility of the proposed intervention with regard to the capacity of the health system, and particularly the human resources available, should be assessed. For example if the innovation calls for a new category of health worker, consider whether and how these will be included in the large scale system. Innovations that are feasible and correspond to national health sector goals are more likely to gain the political and administrative support necessary for large-scale implementation if project results demonstrate success.

Specifically the project team should:

• Evaluate the relevance of the proposed intervention and its objectives in terms of potential impact on pressing health or service delivery problems and their determinants
• Review available evidence for the efficacy of the proposed interventions
• Assess whether the proposed innovation is preferable to alternative ones in terms of feasibility, efficiency, equity, cultural appropriateness and community preferences
• Avoid designing innovations that require financial and human resources which are unlikely to be available for large scale implementation
• Evaluate the fit with existing policies, national health plans and priorities
• Advocate for the importance of the proposed intervention in national and sub-national forums in cases where its relevance is not widely appreciated
• Consider changing or abandoning the project proposal if it is not relevant or preferable over existing practices

4 Based on research findings from a range of fields “relevance” of the innovation is cited in the literature on the diffusion of innovations as a major determinant of future success with scaling up (see Glaser et al and Rogers).
Reach consensus on expectations for scaling-up

Participants involved in planning the project may have different expectations about where and to what extent the innovation is to be scaled up if it proves successful. Expectations may differ with regard to the geographic areas for expansion, the level of service delivery, the target populations or the desired pace of scaling up. It is important to clarify what these expectations are and to ensure that they are reflected in the design of the project\(^5\). At the same time it should be realized that expectations may need to be refined and revisited based on lessons that emerge in the course of implementing the project as well as from ongoing changes in the policy, donor, health systems, social, economic and health environment.

Specifically the project team should:

- Have a formal discussion among key stakeholders about expectations for scaling up and document the agreements reached
- Ensure that the planning and implementation process for the pilot project or other research reflects the shared vision for scaling up
- Modify expectations to reflect learning during the project’s implementation and any changes in the broader environment

Plan on testing the innovation in the variety of socio-cultural and institutional settings where it will be scaled up

The innovation should be tested in the local contexts in which it will be scaled up. If the intervention is expected to improve access to health services for the underserved, it should be tested in areas where the underserved live. In cases where nation-wide implementation is the goal and the country is culturally diverse, piloting should involve as many diverse regions as possible. Interventions intended for community-level implementation should be tested by involving community level institutions and providers and not just at the facility or district level. Scaling up may involve public, private, or NGO-based service systems or a combination thereof. It is important that projects are conducted in the institutions that are expected to scale up interventions if they are proven successful\(^6\).

Specifically the project team should:

- To the extent possible, conduct the project in the variety of social, cultural or regional settings in which scaling up is to take place
- Test the intervention in the type of service delivery points and in the institutional settings where it is to be scaled up

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\(^5\) The importance of shared expectations has been made by authors such as Cooley and Kohl.

\(^6\) For similar arguments see Simmons et al.
Test the innovation under routine operating conditions and existing resource constraints

Projects often succeed because they are implemented with special human, financial and technical resources. Such special inputs are typically not available for large-scale implementation. Testing in the day-to-day operational realities and within the resource constraints of the health service system where the innovation is to be scaled up is therefore essential.\(^7\)

If the innovation can only be tested with additional inputs or with other measures to strengthen health systems capacity, such measures should be considered part of the package of interventions that need to be expanded and institutionalized during scaling up. In some cases it may be necessary to conduct a two-stage piloting process, where the first stage provides the “proof of concept” and the second stage tests how health systems capacity can be strengthened so as to facilitate the implementation of new concepts and approaches.

Specifically the project team should:

- Work with locally available resources and make special efforts to keep externally provided nonreplicable inputs to a minimum
- If additional human, material and/or technical resources are required to implement the innovation, one should explore how these additional resources can be made available during scale up. If future availability of these resources is unlikely, consider further testing of the project with more realistic levels of resources
- Test means of sustainable financing of services when applicable
- Assess whether the health system has the capacity to implement the innovation or whether special efforts will be needed to build capacity.
- If required, test ways to strengthen health systems capacity as part of the project

Tailor the innovation to the local setting to enhance scalability

Innovations that build on existing patterns of social organization, values and local traditions are more likely to be adopted and to last. It is therefore important to seek ways to involve the community and integrate innovations into existing community institutions. Likewise innovations need to be adapted to the organizational culture and the implementation capacity of the health service delivery system in which they are to be implemented. In addition, the larger political, economic, policy, bureaucratic and institutional environments need to be considered to identify both opportunities and constraints for scaling up\(^8\).

Specifically the project team should:

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\(^7\) For discussion of key health service delivery issues when scaling up see Mangham et al.

\(^8\) See Atun et al and Glaser et al.
• Identify community, socio-cultural and gender factors that might constrain or support implementation of the innovation
• Understand the norms, values and operational culture of the implementing organization
• Assess opportunities and constraints within the political, policy, health sector and other institutional factors that will impact the implementation and scale up of the innovation
• Take findings from these analyses into consideration in the planning of pilot or other programmatic research projects
• Allow for sufficient flexibility in the design of the project to allow adjustments in response to socio-cultural diversity or other environmental opportunities and constraints

**Develop a research design assessing not only effectiveness but also the implementation process**

A research design that is appropriately focused on the needs for scaling up must include both measures of effectiveness and measures related to the implementation process⁹. Important variables include availability of the innovation, coverage, accessibility, acceptability, utilization and health outcomes. Needed data on the implementation process include such factors as quality of care, worker skills, workloads, human resources and management issues such as leadership, supervision, incentive structures, costs, financing, logistics and MIS¹⁰.

The critical research questions to be answered are: 1) Is the innovation effective in the local context if appropriately implemented?; 2) What does it take to appropriately implement the innovative technology, practice, product or behavior?; 3) How can an appropriate implementation process be assured as the innovation is taken to scale?; and 4) Is implementation of the innovation consistent with building as opposed to detracting from overall health systems capacity? It is essential to document not only project outcomes and impacts, but also lessons from an analysis of the process of implementation. This analysis and documentation will not only assist in making necessary adaptations to the model but also will be important to establish its credibility.

Specifically the project team should:

• Select measures of effectiveness appropriate for the innovation
• Select measures appropriate to answer questions 1-4 above
• Assess both the effectiveness of the intervention and its implementation using both qualitative and quantitative methods, but especially applying qualitative methods for implementation issues
• Determine the costs of implementation including capital, recurrent and costs to users

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⁹ See Rossi and Freeman.
¹⁰ See Fixsen et al for detailed arguments and evidence related to the importance of providing proof of implementation feasibility.
- Develop a monitoring system and other implementation components such as supportive supervision with a view to their use in the routine program
- Prepare concise documentation from analysis of the project’s process and outcomes

8  **Keep the innovation as simple as possible**

There is a tendency to design pilot projects or other programmatic research that are too complex for later scaling up. This should be avoided. The interventions should be no more complex than absolutely needed to achieve desired outcomes. Although some simplifying of the project interventions can take place once the project has been completed it is important to keep the innovation as simple as possible from the outset 11.

The complexity of interventions must match the capacity of the implementing system unless capacity strengthening is part of the innovation and the scaling-up process. It is important that the demands of implementing the innovation on a large scale not detract from the performance of other programs or services that depend on the same systems.

Specifically the project team should:

- Assess whether simplification is possible without jeopardizing objectives
- Assess whether each of the components of the innovation is necessary to achieve project objectives and eliminate unnecessary components
- If achieving the intended goals requires an inherently complex set of interventions one strategy is to phase the testing of different components of the innovation, simplifying each one by eliminating unnecessary elements before testing them together as a package.

9  **Advocate with donors for financial support beyond the project stage to facilitate scaling up**

A key reason why scaling up of successful interventions often is not realized is that funding for expansion and institutionalization has not been obtained. Donor support typically stops once the efficacy, effectiveness and efficiency of innovations have been tested. Advocacy with donors should include requests for support for scaling-up related activities beyond the pilot phase 12.

Specifically the project team should:

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11 This argument has been widely made in the scaling-up literature based on evidence that complex interventions are difficult to scale up. See for example Fajans et al; Greenhalgh et al; Atun et al and Gericke et al.

12 This argument has been made in regard to research utilization more generally, see Hennink and McEachran.
• Attempt to get conditional commitment for scale-up early in the piloting phase
• Where possible, build a broad base of support for scaling up from several donors and technical partners, beginning early in the process of planning the project
• Advocate with donors for longer funding cycles that allow support to scaling up
• Plan on concluding the project with explicit planning for scaling-up
• Take potential donors to project sites to build commitment.

10 Prepare for and, where appropriate, initiate advocacy for necessary changes in policies, regulations and standards

Successful scaling up of project interventions often requires changes in policies, laws, regulations, budgets, standards, service protocols and other health systems components (i.e. procurement, financing, MIS, supervision, training curricula, IEC materials, recruitment, provider and client incentives, etc) to institutionalize the innovation at the national or sub-national level. Although the process of institutionalization typically has to await project results, plan on preparing for institutionalization in the course of the project.13.

Specifically the project team should:

• Assess what changes in policies, norms, regulations, or other health systems components are needed to institutionalize the innovation
• Explore institutional timelines, procedures, and formal and informal processes needed for the necessary change
• Initiate relevant policy discussions about these potential changes with key stakeholders
• Undertake political mapping of individuals and organizations to know who are important champions and gatekeepers
• Identify and nurture champions who can help advance and, where possible, take responsibility for the institutionalization process

11 Be cautious about initiating scale up before the required evidence is available

Promising initial project results often lead to pressure to scale up the innovation before its feasibility and effectiveness have been fully established. Proceeding without sufficient evidence can lead to scaling up an intervention that does not work or requires further refinement. This can lead to wasted resources, missed opportunities to make progress on other fronts and a loss of credibility14. However, if stakeholders decide to take action anyway, steps should be taken to mitigate negative repercussions. This initial scaling up should proceed incrementally and be closely monitored.

13 See Cooley and Kohl or Hartmann and Linn.
14 Jowell makes this point.
Specifically the project team should:

- Reach a common understanding among all the stakeholders about what is required to test the effectiveness of the innovation and its implementation
- Caution eager stakeholders about premature expansion
- If there is pressure to scale up prior to the project’s completion, identify whether there are aspects of the innovation that can be safely and successfully scaled up before the final results are available
- If it is decided to scale up based on only initial results, maintain the testing and evaluation to assess whether positive result are sustained.

Promote learning and sharing of information while the project is being implemented

The process of implementing a project provides multiple opportunities for learning. Many insights will emerge about what works, when and how. While safeguarding the need for robust evidence, it will be important to adjust the innovation where necessary as testing proceeds and to adapt measurement and documentation accordingly. Piloting is not only testing and demonstrating a model but also refining it through an ongoing learning process.\(^{15}\)

Specifically the project team should:

- Promote observability of the innovation by taking stakeholder to visit pilot sites
- Commit to periodic reviews of the package of interventions as implementation progresses
- Make necessary changes to incorporate learning about how implementation can be improved
- Adjust data collection when necessary
- Document the changes in the innovation that are being made
- Share initial findings at seminars, workshops and policy dialogues

Conclusion

The recommendations presented in this document are intended to assist those planning and implementing pilot projects to anticipate the needs for successful scaling up. Traditionally pilot or other programmatic research has tended to focus on establishing whether interventions work when appropriately implemented. What is generally not assessed in such testing is whether and how the intervention can be implemented under routine programme conditions. Yet unless such “proof of implementation feasibility” is also provided, health service or other innovations are not likely to be scaled up.

\(^{15}\) For a general argument about learning approaches see Uphoff N et al.
Providing proof of implementation feasibility and laying the groundwork for future large-scale implementation is a first major step towards successful scaling up. However, it does not mean that scaling up will occur automatically. Once a pilot project or other programmatic research has been completed, it will be essential to determine whether the results warrant large-scale implementation and if so, detailed plans need to be made for how the innovation can be expanded and institutionalized. Guidance on how to proceed at this stage is provided in the ExpandNet/WHO tool: “Nine steps for developing a scaling-up strategy”.
Scalability checklist for pilot projects or other programmatic research

This checklist provides a quick assessment of how easy or difficult it will be to scale up a project that is being planned, proposed or in the process of implementation\textsuperscript{16}. It is based on the twelve recommendations of the main document. The checklist can be used by those who are planning or implementing a project or by donors or other decision makers who wish to assess a project’s potential for scaling up. Repeated use of the checklist in the course of implementing a pilot project will provide insights into what adaptations are needed to further enhance the potential for sustainable scaling up.

**How the checklist works:** A plus (+) refers to a positive factor for scaling up. Circle the plusses where they apply to the project. The fewer the circled plusses, the more effort will be required to scale up the project. When a large number of plusses are circled the scalability potential of a project is good.

A no or a minus indicates a potential obstacle or area where more work needs to be done to enhance scalability. The project planning team or others using the checklist should decide whether more information should be obtained, and/or how this aspect can be improved. In such situations it will be helpful to refer back to the detailed recommendations in the main document.

The checklist should not be used mechanically. Some of the items will carry greater weight than others in terms of influencing scalability. In fact, some items in the checklist can act as “dealbreakers”. They require a positive answer if the expectation is that the project should be scaled up in cases where the innovation proves successful. An example is relevance, that is whether the innovation addresses a felt need or persistent health problem. If the answer is no, the value of further pursuing the project is seriously called into question and abandoning it may be the appropriate response. Other aspects of the project might be fixable, and once corrective action has been taken could be moved over to the plusses. Thus while a project proposal may initially not look promising, this could provide an opportunity to revise it to enhance its scalability potential early on. Each case should be judged within its own context and should be considered in light of the detailed suggestions in the recommendation in the main document or ExpandNet’s practical guide.

\textsuperscript{16} For a similar checklist see Cooley and Kohl, 2006.
<table>
<thead>
<tr>
<th><strong>Is the innovation/package of interventions likely to be scalable?</strong></th>
<th><strong>Yes</strong></th>
<th><strong>No (-)</strong></th>
<th><strong>More information needed</strong></th>
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<tbody>
<tr>
<td>1 Is input being sought from a range of stakeholders about the project? (policymakers, programme managers, providers, civil society, beneficiaries)</td>
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<td>Are individuals from the future implementing agency involved in the design and implementation of the pilot?</td>
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<td>Is the responsibility for the innovation being assumed by the future implementing organization? Or has ownership been built in other ways?</td>
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<td>2 Does the innovation address a felt need or persistent health or service delivery problem?</td>
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<td>Does the innovation have a relative advantage over other practices?</td>
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<td>Does the innovation have a good fit with existing policies, national health plans and priorities?</td>
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<td>3 Is the project being designed in light of agreed upon stakeholder expectations for where it is to be scaled up?</td>
<td>+</td>
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<td>4 Is the innovation being tested in the variety of socio-cultural settings where it will be scaled up?</td>
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<td>Is the innovation being tested in the type of service delivery points and institutional settings in which it will be scaled up?</td>
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<td>5 Is the innovation being tested using the resources that are expected to be available at scale?</td>
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<td>Are means of sustainable financing being tested?</td>
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<td>Are ways to strengthen health systems capacity being tested as part of the project?</td>
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<td>Question</td>
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<td>Does the health system currently have the capacity to implement the innovation? If no, are there plans to test ways to build the capacity of the health system?</td>
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<td>Has the project identified and taken into consideration community, cultural and gender factors that might constrain or support the pilot effort?</td>
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<td>Have the norms, values and operational culture of the implementing agency been taken into account in the design of the project?</td>
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<td>Are the opportunities and constraints of the political, policy, health sector and other institutional factors reflected in the design of the project?</td>
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<td>Are appropriate measures to assess the effectiveness of the innovation included in evaluation plans?</td>
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<td>Are appropriate measures to assess the feasibility of implementing the innovation under routine programme conditions been included in evaluation plans?</td>
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<td>Are appropriate measures included in evaluation plans to assess whether implementation of the innovation is consistent with building, as opposed to detracting from, overall health systems performance?</td>
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<td>Has the pilot design been reviewed to assess whether simplification is possible without jeopardizing objectives?</td>
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<td>Is there provision for early, effective and continuous engagement with key financial, governmental and technical partners to build a broad base of financial support for scale up?</td>
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<td>Does the project include support for planning for scaling up?</td>
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<td>Are there plans to assess and advocate for changes in policies, laws, regulations, budgets, and standards, needed for large-scale implementation of the innovation?</td>
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<td>Are there plans to advocate for health systems changes (procurement, financing, MIS, supervision, recruitment, incentives, etc) needed for large scale implementation of the innovation?</td>
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<tr>
<td>Are there plans to reach out to champions who can help advance and take responsibility for the scaling-up process?</td>
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<td>Are project team leaders aware of the dangers of premature scaling up and ready to resist pressure from stakeholders to scale up before the needed evidence is available? Is there a shared understanding among key stakeholders about what conditions should be met for there to be a decision to scale up?</td>
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<tr>
<td>Is there a plan to share findings and insights from the pilot implementation at seminars and workshops during implementation?</td>
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<tr>
<td>Have mechanisms been established to review progress and incorporate new learning to revise implementation?</td>
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References


ExpandNet website at www.expandnet.net.


