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Considerations for the Scale-up of Prevention Programs in the National Guard

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Executive Summary

In 2019, Institute for Defense Analyses (IDA) developed a systematic process through which the National Guard Bureau (NGB) could identify, select, and evaluate prevention activities being implemented in individual National Guard (NG) states and territories to protect and improve service member health and wellbeing. Since 2019, NGB's Warrior Resilience and Fitness (WRF) division has implemented this process, including a total of 55 local activities across at least 40 NG states and territories. These activities employed a broad range of interventions, such as resilience trainings, team-building events, risk screening processes, and integrated service provision approaches, to protect and improve service member health and wellbeing. Several of these programs have garnered interest from other states/territories and from NGB for expansion. This aligns with the Department of Defense (DoD) Policy on Integrated Primary Prevention[1] and 2023 Integrated Prevention Research Agenda,[2] which call for the implementation, evaluation, and dissemination or scale-up of effective prevention approaches. Facilitating broad adoption of NG prevention activities—and preserving their effectiveness in a diversity of state/territory contexts—presents significant challenges that will require careful planning and iteration.

Toward this end, NGB tasked IDA with outlining a framework to guide its approach to scaling up prevention activities from the local level to the regional or national level. To develop a scale-up framework, IDA first reviewed existing literature on scale-up approaches and experiences, and then drew from the findings to outline a sequence of activities for NGB's scale-up process. Finally, IDA developed recommendations and key considerations for scaling programs within the NG based on ongoing technical assistance, document reviews, and discussions with NGB and state programs, including several programs in early stages of scale-up.

Review of Scale-up Literature

To inform the scale-up framework developed for WRF, IDA reviewed models, frameworks, and research related to scaling up of broad prevention and health promotion

[1] Office of the Under Secretary of Defense for Personnel and Readiness, DoDI 6400.09, *DoD Policy onIntegrated Primary Prevention of Self-Directed Harm and Prohibited Abuse or Harm*, 2020, 12, https://www.esd.whs.mil/Portals/54/Documents/DD/issuances/dodi/640009p.pdf.

[2] *FY23 Integrated Prevention Research Agenda*, accessed March 15, 2024, https://www.prevention.mil/Portals/130/Documents/2023%20Integrated%20Prevention%20Research%20Agenda.pdf?ver=5nWUoNuEExzzlw9Y0GczGA%3D%oNuEExzzlw9Y0GczGA%3D%3D.

activities in a wide range of contexts. Through this review, IDA developed a foundational understanding of the concept of scale-up, as well as the structure and contents typical of scale-up frameworks.

IDA found that scale-up processes encompass vertical scale-up, which refers to institutionalization or changes in the organizational infrastructure in which an activity is implemented, as well as horizontal scale-up, which focuses on diffusion of the activity to new populations or settings. Scale-up frameworks are commonly structured into three broad phases: (1) a small-scale pilot phase for testing and refinement of an activity, (2) a preparatory phase for program documentation and resource coordination to support scale-up, and (3) an implementation phase during which deliberate scale-up efforts, as well as monitoring and evaluation, take place.

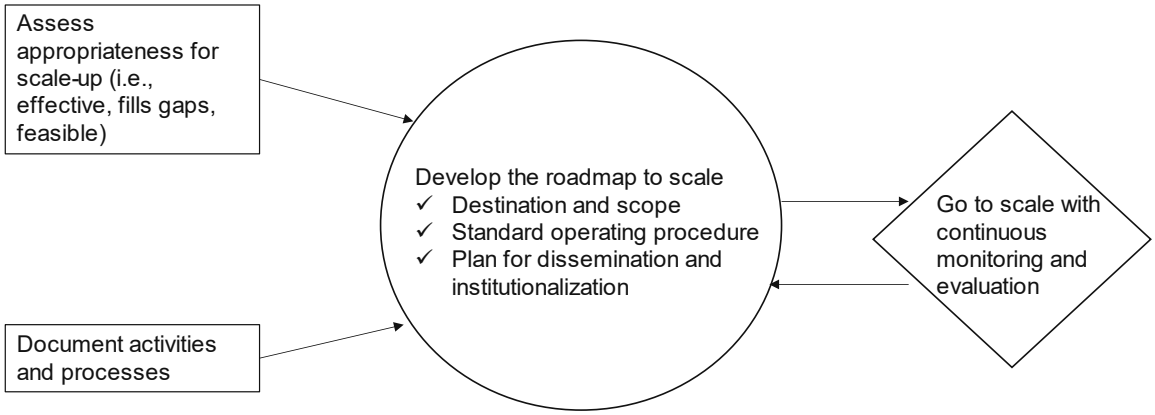
A written scale-up strategy is critical to scaling an activity. Broadly, this documentation includes:

- Information to specify the attributes of the activity (e.g., implementation processes, evidence), attributes of the "originating" and "adopting" organizations (e.g., the culture, management structures, and financial resources of the original implementing sites and new implementing sites), and attributes of the external context (e.g., local laws or policies, health and socioeconomic trends, population demographics and characteristics)
- Scale-up goals to explain the larger vision and purpose for scale-up and the intended scope of scaling (e.g., target populations and new locations)
- Step-by-step plan for executing scale-up, including key roles and responsibilities (i.e., for leading program implementation and facilitating dissemination), preparatory processes to support scale-up (e.g., involving stakeholders, securing buy-in and resources, building capacity in adopting organizations, and developing a monitoring and evaluating plan for the program and scale-up process), and processes for implementing the activity at scale

Through our review of existing literature on scale-up and scale-up frameworks, IDA also developed an understanding of elements that can act as a barrier (i.e., hindrance) or facilitator (i.e., advantage) to scale-up. Evinced *process and outcome effectiveness* is necessary to successful scale-up, as is previously-demonstrated feasibility for adoption in and/or adaption to a *diversity of contexts and target populations*. *Support from leadership* is one of the most important facilitators of the scale-up process. It is important for all stakeholders, however, to perceive that the activity *addresses a need and aligns with their values and preferences*. Sufficient capacity for implementing the scale-up plan, including activity implementation, evaluation, and oversight processes, in both originating and adopting organizations is critical to scale-up. This also includes funding and staff, existing scale-up infrastructure, implementation expertise, and organizational commitment.

WRF Scale-up Framework

To achieve successful scale-up of best practices and effective activities in the NG, IDA recommends NGB apply a phased approach, with certain actions occurring in a deliberate sequence to prepare for and execute scale-up. We propose this sequence given dependencies between the phases (i.e., selecting and documenting an activity to scale must precede development of a scale-up plan). The figure below illustrates the steps of the proposed scale-up framework.



These steps are:

1. **Assess appropriateness for scale-up.** Based on our literature review, IDA defines appropriateness for scale-up as meeting minimum standards for evidence of effectiveness (i.e., consistent findings from multiple pre-post evaluations), filling a gap in NGB's prevention portfolio, and possessing qualities that make scale-up feasible.
2. **Document the activity's elements and processes.** Although a strong understanding of the activity should inform the decision to scale, this step involves filling in any remaining gaps in information about the intervention and the specific processes involved in its implementation.
3. **Outline the roadmap to scale.** This includes defining the destination (e.g., states or territories included) and desired scope (e.g., extent of institutionalization) of scale-up; compiling the package of tools, materials, and guidance into a Standard Operating Procedure (SOP) for adopting states to use, and creating a step-by-step plan for dissemination and institutionalization of the activity.
4. **Go to scale—with continuous monitoring and evaluation.** To support implementation of the scale-up plan, NGB should establish processes and leverage existing systems (e.g., Microsoft Teams, Integrated Primary Prevention

Tool (IPPT)), for coordination and communication across originating and adopting states/territories and for monitoring, evaluating, and adapting the activity and the scale-up process.

We note that overlap may occur between steps 1 and 2, and that iteration may occur between steps 3 and 4, as local implementation and evaluation experiences inform ongoing scale-up and adaptation efforts.

General Recommendations and Key Considerations

IDA's research supports several overarching recommendations for applying the proposed scale-up framework and for supporting the success of large-scale prevention activities.

- **Continue to implement a process for evaluating newly-designed or adapted programs** on a small-scale (e.g., in new geographic contexts, among new target populations) so implementers have opportunities to learn from failure and try different approaches.
- **Design activities with elements that enable implementation at scale** (e.g., simple interventions that leverage existing resources) so that, even though initial testing occurs locally, the activity is positioned for large-scale implementation if proven effective.
- **Define a clear purpose and vision for scale-up** during local implementation to ensure scaling is suitable for the activity.
- **Consider the tradeoffs between gradual and rapid expansion** and how the complexity of a program, its resource requirements, and buy-in and capacity in states/territories impact the scale-up processes and ultimate success.
- **Clearly report and disseminate activities' current status and envisioned end-state** to improve understanding and buy-in across current and future stakeholders.
- **Leverage extant knowledge management systems and communication processes** to facilitate coordination and communication among stakeholders at the state-level and NGB-level. These include Microsoft Teams, the IPPT, and interpersonal fora (e.g., working groups, national leadership meetings).
- **Foster relationships among NG states/territories** to create opportunities for shared problem-solving and knowledge exchange.
- **Collaborate with external agencies to learn best practices** for program implementation and management.

Contents

1. Introduction

The National Guard Bureau (NGB) tasked the Institute for Defense Analyses (IDA) with outlining a framework for the scale-up of prevention activities, expanding implementation and evaluation from the local level (e.g., a single state/territory) to the regional or national level (e.g., across the 54 National Guard (NG) states and territories). This extends previous IDA work assisting NGB with identifying and evaluating state-level programs and disseminating information about best practices.[1] Successful scale-up of state-level prevention activities could be beneficial to implementing Department of Defense (DoD) Policy on Integrated Primary Prevention of Self-Directed Harm and Prohibited Abuse or Harm, which establishes a prevention system to "identify, adapt, implement, and evaluate research-based prevention programs, policies, and practices."[2] It also aligns with DoD's 2023 Integrated Prevention Research Agenda, which includes an enduring focus area to "identify effective methods for scale up and dissemination of prevention activities"[3] in support of quality implementation.

In this report, IDA describes a scale-up framework and key considerations for scaling activities in the NG's decentralized organization structure. IDA developed this framework based on a review of scale-up approaches and experiences in agencies external to the NG. Recommendations are informed by knowledge gained through IDA's ongoing work with NGB and NG state programs. This work includes advising on evaluation approaches, reviewing program progress reports and other documents, and holding discussions with NG state programs, including several programs in early stages of scale-up.

A. Background

In 2019, IDA developed a systematic process which NGB could use to identify, select, and evaluate prevention activities being implemented in individual NG states and

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1 Dina Eliezer, Ashlie M. Williams, Dave I. Cotting, Heidi C. Reutter, and Rachel D. Dubin, *National Guard Suicide Prevention and Resilience Innovation Framework*, IDA Paper P-22668 (Alexandria, VA: Institute for Defense Analyses, July 2021).

2 Office of the Under Secretary of Defense for Personnel and Readiness, DoDI 6400.09, *DoD Policy on Integrated Primary Prevention of Self-Directed Harm and Prohibited Abuse or Harm* 2020, 12 https://www.esd.whs.mil/Portals/54/Documents/DD/issuances/dodi/640009p.pdf.

3 *FY23 Integrated Prevention Research Agenda*, accessed March 15, 2024, https://www.prevention.mil/Portals/130/Documents/2023%20Integrated%20Prevention%20Research%2 0Agenda.pdf?ver=5nWUoNuEExzzlw9Y0GczGA%3D%oNuEExzzlw9Y0GczGA%3D%3D.

territories.[4] This effort intended to address an issue NGB leaders had identified, that "current [suicide prevention] efforts within the NG are largely decentralized and are not regularly tracked or evaluated for effectiveness."[5] IDA's report outlined a way forward for unifying and enhancing these efforts, including implementing a robust and flexible program evaluation process and learning best practices for program implementation from individual states/territories, ultimately spreading this information throughout the NG.

Within NGB's Manpower and Personnel Directorate (J1), the Warrior Resilience and Fitness (WRF) Division deployed the IDA-developed process from 2019 through 2023, with continued support from IDA for its implementation and refinement.[6] During this time, WRF released annual calls for proposals for state-level activities and supported a total of 55 activities, spanning at least 40 NG states and territories, to receive funding and technical assistance (e.g., developing evaluation plans, facilitating data collection, and analyzing data). Here, we use the term "activities" to refer to a broad variety of programs, policies, and processes, such as resilience trainings, team-building events, risk screening processes, and integrated service provision approaches. Although some of these activities were developed internally by NG staff, others were externally-developed, such as those originally used in the Active-Duty component or among civilian populations. As states evaluated and reported on the effectiveness of their activities, WRF collected and disseminated information about activities' key accomplishments. Details about these activities have been presented at several in-person and virtual forums (e.g., VA/DoD Suicide Prevention Conference, Integrated Primary Prevention Symposium), briefed to senior DoD leaders and external federal agencies, and documented in IDA's 2022[7] and 2023[8] WRF State Programs Annual Reports. NGB then provided continued funding and support to select activities that showed evidence of effectiveness (i.e., data analysis showing statistical significance on key outcome metrics) at the local level, with the intent of facilitating their implementation and evaluation in a larger number of NG states and territories.[9]

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4 Dina Eliezer, David R. Graham, and Susan L. Clark-Sestak, *National Guard Suicide Prevention Innovation Framework*. IDA Paper P-10468 (Alexandria, VA: Institute for Defense Analyses, 2019).

5 Eliezer, Graham, and Clark-Sestak, *National Guard Suicide Prevention Innovation Framework*, 1.

6 Eliezer et al., *National Guard Suicide Prevention and Resilience Innovation Framework*.

7 Ashlie M. Williams, Dina Eliezer, Juliana Esposito, and Emily A. Fedele, *2022 State Programs Annual Report: National Guard Bureau Warrior Resilience and Fitness*, IDA Document NS D-33216 (Alexandria, VA: Institute for Defense Analyses, 2023).

8 Juliana Esposito, Dina Eliezer, Emily A. Fedele, Zoe Pamonag, and Ashlie M. Williams, *2023 State Programs Annual Report: National Guard Bureau Warrior Resilience and Fitness*, IDA Product 3000754 (Alexandria, VA: Institute for Defense Analyses) Draft Final, 2024.

9 Eliezer et al., *National Guard Suicide Prevention and Resilience Innovation Framework*.

Several of the supported activities have garnered interest from other states/territories, outside their original locations. Further, some have garnered attention for, and/or have begun working toward, expansion NG-wide. Facilitating broader adoption of such activities—and preserving their effectiveness in a diversity of state/territory contexts—presents significant challenges that will require careful planning. Toward this end, WRF requires a framework to guide scale-up.

B. Terminology

1. Defining Scale-up

The World Health Organization (WHO) ExpandNet definition of 'scale-up' is most commonly used in the context of scaling health and social programs.[10] In this definition, scale-up refers to "deliberate efforts to increase the impact of innovations successfully tested in pilot or experimental projects so as to benefit more people and to foster policy and program development on a lasting basis."[11] Here, the term "innovation" refers to any intervention tested in a new context. It includes newly-developed interventions as well as interventions that previously developed/tested in other contexts. In the NG, an innovation could refer to programs newly developed in NG states as well as programs adapted from civilian populations. Scale-up includes *expansion* of the innovation to new populations and/or locations, as well as *institutionalization* of the innovation into existing organizational infrastructures (see section 2.A for further discussion of expansion and institutionalization).

This definition aligns with existing DoD efforts and issuances. Although the DoD does not provide a specific definition of "scale-up," several DoD documents address processes related to scaling prevention activities (i.e., policies, programs, and practices). At the DoD policy and strategy level, for example, the Prevention Plan of Action (PPoA) 2.0 (DoD's strategic approach to prevention of harmful behavior) includes the wide dissemination of prevention activities and implementation of large-scale activities.[12] Similarly, the 2023 Prevention Research Agenda discusses the importance of understanding pre-requisites and methods for scaling up and disseminating prevention

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[10] Roberta de Carvalho Coroa, Amede Gogovor, Ali Ben Charif, Asma Ben Hassine, Herve Tchala Vignon Zomahoun, Robert KD Mclean, Andrew Milat et al., "Evidence on scaling in health and social care: an umbrella review," *The Milbank Quarterly* 101, no. 3 (2023): 881–921.

[11] "Our Scaling-Up Definition," *ExpandNet*, September 10, 2020, https://expandnet.net/scaling-up-definition/.

[12] *Execution of the Department of Defense Prevention Plan of Action 2.0 (2022-2024)*, accessed March 15, 2024, https://www.armyresilience.army.mil/ard/images/pdf/Policy/PPOA%202.O.pdf.

strategies.[13] Prevention-related initiatives within DoD have documented efforts to expand to additional military installations[14] and across DoD.[15] Thus in the NG context, we understand scale-up in terms of expansion of a new program or other intervention from local implementation (i.e., in one or a few states/territories) to widespread implementation among NG states/territories, supported by institutionalization at the state/territory- and/or NGB-level.

2. Other Terms Used in this Report

For clarity, we offer explanations for our use of several terms in this report:

- *Activity*: any program, training, event, intervention, policy, or practice that aims to prevent or respond to harmful behaviors
- *Innovation:* an activity being implemented and evaluated in the NG for the first time
- *Pilot:* the process of implementing and evaluating an innovation
- *Implementation:* the collective processes through which an organization uses an activity, including both high-level management processes and specific interactions with program recipients/participants[16]
- *Originating organization:* the NG state/territory, NGB office, or other entity responsible for the original, local implementation and evaluation of an activity
- *Adopting organization:* the NG states/territories, branch, units, or other entities receiving an activity through the scale-up process
- *Intermediary organization:* the entity (e.g., WRF or another NGB-J1 division) that supports originating and adopting organizations through the scale-up process

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[13] *FY23 Integrated Prevention Research Agenda*, accessed March 15, 2024, https://www.prevention.mil/Portals/130/Documents/2023%20Integrated%20Prevention%20Research%20Agenda.pdf?ver=5nWUoNuEExzzlw9Y0GczGA%3D%oNuEExzzlw9Y0GczGA%3D%3D.

[14] Amy L. Shearer, Joie Acosta, Patricia Ebener, Jordan Simonson, and Matthew Chinman, "Scaling up implementation support for violence prevention and resilience promotion in the Air Force," *Health Education & Behavior* 50, no. 3 (2023): 328–338.

15 Joie D. Acosta, Rajeev Ramchand, Amariah Becker, and Alexandria Felton, *Development and Pilot Test of the RAND Suicide Prevention Program Evaluation Toolkit*, RAND Corporation, 2013.

[16] Laura J. Damschroder, David C. Aron, Rosalind E. Keith, Susan R. Kirsh, Jeffery A. Alexander, and Julie C. Lowery, "Fostering implementation of health services research findings into practice: a consolidated framework for advancing implementation science," *Implementation science* 4 (2009): 1– 15.

C. Organization of this Report

Chapter 2 describes existing frameworks for the scale-up of health promotion and/or prevention activities, drawn from various contexts. Chapter 3 provides a framework adapted to the NG context, with guidance and considerations informed by IDA's review of existing frameworks and ongoing work with NGB and NG state programs. Chapter 4 provides general considerations for applying this framework and for strengthening efforts to achieve NGB's original aim to facilitate broader dissemination of best practices for the prevention of harmful behavior. Additional information is included in Appendix A and Appendix B.

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2. Review of Scale-up Frameworks for Health Promotion and Intervention Activities

Scale-up of effective public health-related activities has been an area of increasing research focus in recent decades, particularly in health care settings and in low-income countries.[17] To inform development of an NG scale-up framework, IDA sought to understand the scale-up experiences described in this literature. To do so, IDA performed a systematic search to identify models, theories, frameworks, and concepts related to scale-up. We searched the PubMed and Scopus databases using variations of the phrase "scale-up" (e.g., scaling, broad scale) and "health programs" (e.g., health interventions, public health) to identify relevant publications, and also searched reference lists to identify commonly-cited documents we may have overlooked. We then reviewed documents that included guidance on scaling (e.g., process models, tools) and were applicable to broad prevention and health promotion activities. We did not review quantitative articles (e.g., mathematical models) or documents that focused exclusively on clinical interventions.

Based on this review, we developed a foundational understanding of scale-up and the elements typically included in scale-up frameworks. We present key findings in the remaining sections of this chapter, summarized in Table 1. In Chapter 3, we present the recommended NG-specific scale-up framework.

[17] Carvalho Coroa et al., "Evidence on scaling in health and social care: an umbrella review."

Table 1. Key Takeaways from Literature Review

Types of Scaling	• Includes *horizontal scale-up (diffusion of the intervention activity to new populations or settings)* and *vertical scale-up (institutionalization or changes in the organizational infrastructure in which an intervention activity is implemented)* • Horizontal scale-up may be unsustainable without vertical scale-up/institutionalization
Structure of Scale-up Frameworks	• Most use phased approaches that begin with a small-scale *pilot phase*, where learning and refinement take place • Emphasize a deliberate *preparatory phase* to ensure necessary plans, resources, and infrastructure before proceeding to an *implementation phase* of scale-up
Scale-up Strategy	• Requires a deep understanding of the attributes of the program, the originating and adopting organizations, and the external context • Written scale-up plan detailing the program, implementation context, and actions required for scale-up is a critical output of preparation processes • Task the originating organization and/or a third-party intermediary organization with building capacity for scale-up in both originating and adopting organizations • Execution of scale-up requires ongoing monitoring, evaluation, and adaptation of the activity
Potential Barriers and Facilitators to Scale-up	• Programs with strong outcome effectiveness, feasibility in diverse contexts, and relative advantage over other available programs may be more successful at scaling • Leadership support, stakeholder engagement, and advocates who can communicate a program's value can help facilitate scale-up • Organizations need capacity, commitment, and, ideally, prior experience with implementation and evaluation to support scale-up

A. Types of scaling

Scaling up an intervention within and/or beyond the initial implementation context may be referred to as **horizontal scale-up or expansion**.[18] In this sense, scale-up refers to the diffusion of the intervention among new groups, to include larger numbers of the original target population and/or expanding the target population to include new groups. For example, if a small-scale intervention was originally intended to be delivered to junior enlisted service members in two NG states, horizontal scale-up might include

[18] Susan E. Bulthuis, Maryse C. Kok, Joanna Raven, and Marjolein A. Dieleman, "Factors influencing the scale-up of public health interventions in low-and middle-income countries: a qualitative systematic literature review," *Health Policy and Planning* 35, no. 2 (2020): 219–234; "Nine steps for developing a scaling-up strategy," *World Health Organization*, 2010.

dissemination among junior officers and/or implementation in additional NG states. Horizontal scale-up may also involve the use of new delivery systems (e.g., virtual format in addition to in-person) or other *adaptations*. Adaptation refers to a process wherein implementers look beyond replication of the original intervention to make adjustments that improve fit in new settings or populations (e.g., adjusting curricula).[19]

Changes to the organizational infrastructure or systems in which an intervention is implemented may be referred to as **vertical scale-up or institutionalization**.[20] These changes aim to support the intervention that is being horizontally scaled. Institutionalization of an intervention and its components (e.g., the resources the intervention requires) can involve its integration into an organization's existing policy or standard operating procedure, or perhaps into a permanent funding stream. This ultimately aims to facilitate the program's sustainability over time.[21]

B. Structure of Scale-up frameworks

A 2023 review of scale-up literature identified over a dozen scale-up frameworks and toolkits, with the WHO/ExpandNet framework most frequently cited.[22] We used a selection of these frameworks to inform the development of this report (see Appendix B), while noting that it may be appropriate to deviate from or streamline certain elements to fit the NG context.

Scale-up frameworks typically use phased approaches, in which a program progresses through a series of broad steps to prepare for and attain scale-up.[23] Although other rapid approaches to scale-up exist (e.g., "explosive" scale-up), sources highlight the benefits of more gradual, phased approaches,[24] as they allow for ongoing refinement and adjustment

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19 For more information about program adaptation, see https://vetoviolence.cdc.gov/apps/adaptation-guidance/.

20 Bulthuis et al., "Factors influencing the scale-up of public health interventions in low-and middle-income countries."

21 "Importance of Sustainability as an Evaluation Standard," *EvalCommunity*, May 21, 2023, https://www.evalcommunity.com/career-center/sustainability/.

22 Carvalho Coroa et al., "Evidence on scaling in health and social care: an umbrella review."

23 E.g., *World Health Organization*, "Nine steps for developing a scaling-up strategy;" Larry Cooley et al., "Scaling up—from vision to large-scale change: a management framework for practitioners," Washington, DC: Management Systems International (2021), https://www.msiworldwide.com/wp-content/uploads/2023/10/ScalingUp_3rd-2021_v3_0.pdf; Kevin Nolan, Marie W. Schall, Fabiane Erb, and Thomas Nolan, "Using a framework for spread: the case of patient access in the Veterans Health Administration," *The Joint Commission Journal on Quality and Patient Safety* 31, no. 6 (2005): 339–347; Pierre M. Barker, Amy Reid, and Marie W. Schall, "A framework for scaling up health interventions: lessons from large-scale improvement initiatives in Africa," *Implementation Science* 11 (2015): 1–11.

24 Cooley, "Scaling up—from vision to large-scale change: a management framework for practitioners."

to troubleshoot issues as they arise. In Chapter 3, IDA therefore recommends a flexible, phased approach for NGB. Figure 1 provides a visual summary of three broad phases.

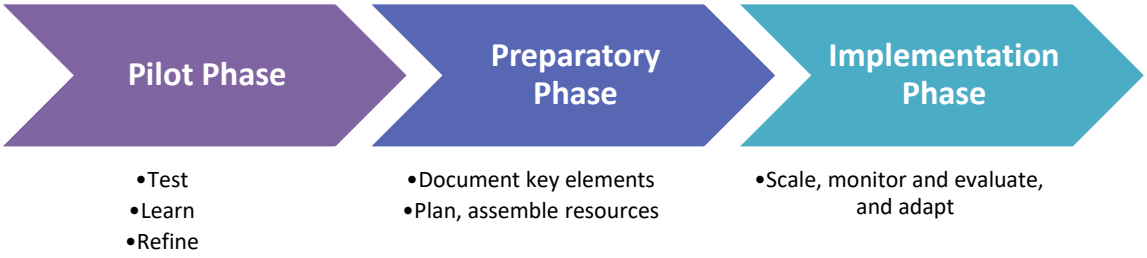

Figure 1. Scale-up Framework Phases

Phased approaches often begin with a *pilot phase* to test, learn about, and refine an innovation.[25] During the pilot process, frameworks commonly recommend "designing for scale" (i.e., building in elements that will help set the program up for successful scale-up in the future).[26] They further emphasize the importance of developing a deep understanding of the program (discussed in Section 2.C.1.a) to inform subsequent phases. At the end of the pilot phase, scale-up frameworks recommend applying certain criteria (discussed in Section D) for determining whether to proceed with scale-up.

Once the decision to scale has been made, frameworks enter into a *preparatory phase*, which involves assessing and building capacity in the originating and adopting organizations to support the scale-up process (discussed in Sections 2.C.1.b and 2.C.1.c), developing a deep understanding of the external environment or context (Section 2.C.1.d), outlining specific steps in a scale-up plan, and gathering the resources needed to execute the scale-up plan (Section 2.C.3). The plan is ultimately executed in a third *implementation phase*. The scale-up framework presented in Chapter 3 focuses on activities that fall into the preparatory and implementation phases.

C. Scale-up Strategy

A written scale-up strategy is critical to scaling-up an activity. Although activities, or certain elements of activities, sometimes scale spontaneously, the development of a

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[25] The pilot phase mirrors the innovation framework outlined in IDA's 2021 report; therefore, we do not detail the pilot phase in the current report. We recommend WRF continue to implement this innovation framework in coordination with the Integrated Prevention Program.

[26] E.g., Barker, Reid, and Schall, "A framework for scaling up health interventions: lessons from large-scale improvement initiatives in Africa;" *World Health Organization* and *ExpandNet*, "Beginning with the End in Mind," 2011, https://www.who.int/publications/i/item/9789241502320.

strategy before entering the *implementation phase* facilitates quality of implementation and sustainability. Broadly, this strategy includes documentation of key information about the activity and its implementation context; scale-up goals; and a detailed scale-up plan.

1. Documentation of Key Information

Documenting key information about the activity to be scaled-up and its implementation context provides an essential foundation to defining scale-up goals and outlining a scale-up plan. We organize the key information into four categories, adapted from the Consolidated Framework for Implementation Research:[27] (1) attributes of the activity, (2) attributes of originating organization, (3) attributes of the adopting organization, and (4) the external context of scale-up. Table 2 summarizes the key information to include for each category, and we provide a detailed discussion below. Combined, information about these four areas should describe the model or "scalable unit" that will ultimately be adopted by other organizations.[28]

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[27] Damschroder et al., "Fostering implementation of health services research findings into practice: a consolidated framework for advancing implementation science." The CFIR framework includes five components: the intervention, its inner and outer setting, the people it involves, and the implementation process itself.

[28] Centre for Epidemiology and Evidence, "Increasing the Scale of Population Health Interventions: A Guide," *Evidence and Evaluation Guidance Series*, Population and Public Health Division, Sydney: NSW Ministry of Health (2023), https://www.health.nsw.gov.au/research/Publications/scalability-guide.pdf.

Table 2. Information to include in the scale-up strategy

Activity	Attributes • Goals, interventions, infrastructure, processes, costs, and resource requirements • Process and outcome effectiveness, particularly evidence of feasibility, acceptability, and effect on target population Key considerations • Differentiate between "essential elements" (which must be preserved when the activity scales) and "non-essential elements"
Organizations	Attributes • Culture; policies; management and bureaucratic structures; supervision and accountability procedures • Financial and staffing resources; Capabilities, expertise, and experience of its staff members; and its partnerships with external organizations Key considerations • Differentiate between essential and non-essential elements of an activity's organizational context • Compare attributes of the *originating organization* and the *adapting organization*; consider role of originating organization or intermediary organization in supporting implementation in the adopting organization
External context	Attributes • Local laws or policies, bureaucratic structures, characteristics of the broader health or social service sectors • Demographics, geography, socioeconomic trends, health trends, and culture Key considerations • Consider throughout all phases of scale-up as external context can influence processes and outcomes

a. Attributes of the program

To scale-up a program, implementers must have in-depth knowledge of the program's key elements *and* clearly document this information. This includes the program's goals, the specific set of interventions that will be scaled, the organizational infrastructure and processes that implementation entails, and costs and resource requirements. Implementers must also understand and document the program's process and outcome effectiveness, particularly evidence of its feasibility, acceptability, appropriateness, and effects on target

populations. Collectively, this information paints a picture of another attribute of the program—its scalability. Scalability refers to the program's feasibility and appropriateness for larger-scale implementation.[29] Section D will discuss specific characteristics that can facilitate or hinder scalability.

Through the process of documenting a program's attributes, implementers identify the specific elements that must be preserved when the program scales. These are referred to as the program's "essential elements." At the same time, frameworks note the importance of identifying elements that are non-essential, as streamlining, modifying, or removing can improve feasibility of scale-up.[30]

b. Originating organization

Documenting the elements of the *originating organization* that influenced the activity's implementation and outcomes is another essential piece of building the foundation for scale-up.[31] Attributes of the originating organization include its culture; policies; management and bureaucratic structures; supervision and accountability procedures; financial and staffing resources; the capabilities, expertise, and experience of its staff members; and its partnerships with external organizations. However, just as there are essential and non-essential elements of an activity, there are also essential and non-essential elements of the originating organizational context (i.e., elements that must be present within any future adopting organization for the program to succeed, and those that may be modified or removed to facilitate scale-up and improve fit in new contexts).[32]

c. Adopting organizations

Adopting organizations are active participants in the scale-up process. When planning scale-up, implementers should understand the adopting organization(s) and, in particular,

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[29] Andrew John Milat, Lesley King, Adrian E. Bauman, and Sally Redman, "The concept of scalability: increasing the scale and potential adoption of health promotion interventions into policy and practice," *Health promotion international* 28, no. 3 (2013): 285–298.

[30] Centre for Epidemiology and Evidence, "Increasing the Scale of Population Health Interventions: A Guide;" Office of Healthcare Innovation and Learning, *Diffusion Playbook,* VHA Diffusion of Excellence (2023), https://www.innovation.va.gov/ecosystem/views/diffusion-excellence/assets/documents/diffusion-playbook-2023.pdf; Barker, Reid, and Schall, "A framework for scaling up health interventions: lessons from large-scale improvement initiatives in Africa."

[31] "Practical guidance for scaling up health service innovations," *World Health Organization* and *ExpandNet,* 2009, https://media.expandnet.net/file/root/who-expandnet-practical-guide-published.html; Cooley, "Scaling up—from vision to large-scale change: a management framework for practitioners."

[32] Barker, Reid, and Schall, "A framework for scaling up health interventions: lessons from large-scale improvement initiatives in Africa;" Damschroder, et al., "Fostering implementation of health services research findings into practice: a consolidated framework for advancing implementation science;" Office of Healthcare Innovation and Learning, *Diffusion Playbook.*

how its attributes differ from those of the originating organization.[33] If the essential elements of the originating organization are absent within potential adopting organizations, implementers can plan and assess feasibility for changes. Adopting organizations typically require support from the originating organization and/or a third-party *intermediary organization* to guide and assist with change management (e.g., training and development for staff in the adopting organization; managing planning and implementation processes; assisting with resourcing/funding plans; and supporting monitoring, evaluation, and documentation/reporting).[34] In addition to understanding the attributes of the originating and adoption organizations, implementers must therefore also understand their capacity to engage in the scale-up process itself.

d. External context

Certain elements of the environment surrounding the originating and adopting organizations strongly influence scale-up processes and outcomes. Local laws or policies, bureaucratic structures, geography, and the characteristics of the broader health or social service sectors can influence program functioning.[35] Further, broader socioeconomic trends, health trends, population demographics, and culture influence the implementers and beneficiaries of an activity and thus influence program effectiveness. Not accounting for external context commonly leads to failure of an activity in any phase of scale-up.

2. Scale-up Goals

Scale-up goals explain the larger vision and purpose for scale-up. These goals articulate the gap the activity is intended to fill, why that particular activity is the best option to scale-up, and the intended scope of scale-up (e.g., target populations, new locations, and extent of institutionalization) of scaling.[36] Key stakeholders involved in scale-up, including in both the originating and the adopting organizations, should work together to formulate these goals.

3. Scale-up Plan

Detailed scale-up plans document the actual process for executing scale-up. The next two sections describe two key components of scale-up plans: (1) key roles and responsibilities, and (2) specific processes for carrying out scale-up.

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[33] Cooley, "Scaling up—from vision to large-scale change: a management framework for practitioners."

[34] "Practical guidance for scaling up health service innovations," *World Health Organization*; Cooley, "Scaling up—from vision to large-scale change: a management framework for practitioners."

[35] "Practical guidance for scaling up health service innovations," *World Health Organization.*

[36] Cooley, "Scaling up—from vision to large-scale change: a management framework for practitioners;" Office of Healthcare Innovation and Learning, *Diffusion Playbook*.

a. Scale-up roles and responsibilities

Below, we present key considerations for determining roles and responsibilities during scale-up. We present these as binary options for simplicity, but approaches may fall somewhere in the middle of each.[37] The first two considerations relate to the roles of the originating, adopting, and intermediary organizations:

- **Who will lead implementation of the activity?** The originating organization may continue to lead or oversee implementation in new adopting organizations. Alternatively, adopting organizations may independently implement the program using materials and guidance from the originating organization.
- **Who will facilitate large-scale dissemination of the activity?** Scale-up may use an *additive* approach, wherein the originating or intermediary organization supports implementation in each adopting organization. Alternatively, it may use a *multiplicative* approach, where earlier adopters go on to assume the role of the originating or intermediary organization to help onboard later adopters.

The second two considerations relate to decision-making authority:

- **Who will decide whether to adopt the activity?** Scale-up may leverage *top-down* approaches, wherein higher-level authorities (e.g., policymakers) mandate adoption of the activity, or they may leverage *bottom-up* approaches, wherein potential adopters voluntarily seek out the activity.
- **Who will determine how to implement the program?** Scale-up may entail highly *standardized* activity implementation, wherein adopting organizations closely replicate the original design. Alternatively, it may entail significant *adaption* of the activity in new settings.

Notably, the appropriateness of any approach to scale-up depends on the activity, the implementation context, and the goal for scale-up. For example, simple activities may lend well to mandated but independent implementation within the adopting organization, due to lesser preparation and/or coordination requirements, whereas complex activities may require more collaborative approaches.[38] Further, partnerships with originating organizations and/or multiplicative approaches that involve early adopters in

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[37] Cooley, "Scaling up—from vision to large-scale change: a management framework for practitioners."

[38] Andrew J. Milat, Adrian Bauman, and Sally Redman, "Narrative review of models and success factors for scaling up public health interventions," Implementation Science 10 (2015): 1–11; M. Rashad Fares Massoud, Katlyn L. Donohue, and C. Joseph McCannon, "Options for large-scale spread of simple, high impact interventions," Bethesda: University Research Co. LLC (URC) 2010, https://www.researchgate.net/publication/263619118_Options_for_Large-scale_Spread_of_Simple_High-impact_Interventions_Technical_Report.

dissemination/expansion processes can increase the pace of scale-up over time.[39] Frameworks and guidance documents recommend actively soliciting input from a variety of stakeholders to outline an appropriate scale-up process.

b. Scale-up processes

The detailed scale-up plan should outline the specific actions or steps required to prepare for and execute implementation of the activity at the envisioned scale and the timeline for completing each step. Although the specific steps toward scale-up depend closely on the activity and the implementation context, IDA's review identified certain common elements:[40]

- As early as possible, involved stakeholders should work to promote buy-in or interest in the program among potential adopting organizations.[41] In particular, the originating and/or intermediary organization can play an important role in this effort, such as by conducting advocacy, marketing, or outreach that conveys the need for the activity, its evidence of effectiveness (i.e., effects on intended outcomes), and its feasibility.[42] Within the adopting organization, it is beneficial to secure local advocates or champions who can help legitimize any planned changes necessary to implement the activity.
- In preparation for implementation of the activity, scale-up plans include steps to build capacity and change organizational structures. For example, adopting organizations may need to update their communication and management processes or secure additional resources to support the activity. Doing so may involve close coordination and communication with the originating and intermediary organizations; these organizations may therefore require capacity building and new resources or processes as well.
- Throughout scale-up, expanding monitoring and evaluation procedures are critical. In particular, monitoring and evaluation efforts must enable evaluators to assess whether the activity maintains the effectiveness (e.g., changes in outcomes, acceptability and quality) initially demonstrated in the pilot phase,

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39 "Practical guidance for scaling up health service innovations," *World Health Organization.*

40 "Practical guidance for scaling up health service innovations," *World Health Organization*; Cooley et al., "Scaling up—from vision to large-scale change: a management framework for practitioners"; Office of Healthcare Innovation and Learning, *Diffusion Playbook*.

41 Consult literature on organizational change to inform approaches to promoting buy-in, e.g., Annette Shtivelband and John Rosecrance, "Gaining organizational buy in: Lessons learned from fifty ergonomists," *Proceedings of the Human Factors and Ergonomics Society Annual Meeting* vol. 54, no. 17, (2010): 1277–1281.

42 "Practical guidance for scaling up health service innovations," *World Health Organization*; Cooley, "Scaling up—from vision to large-scale change: a management framework for practitioners."

maintains fidelity to the intended model, and/or if there are any unexpected results when delivered in new settings or populations. Actions to disseminate evaluation findings among key stakeholders, such as decision-makers, implementers, and beneficiaries, can facilitate ongoing efforts to promote buy-in and the longer-term sustainment of the activity.[43]

- Scale-up frameworks additionally include steps to monitor and evaluate the scale-up process itself. This might include monitoring the progress of organizational changes, capacity building, adoption of the activity, and adaptions to the activity. Information collected through these efforts can inform ongoing refinement of the scale-up plan.

D. Potential Barriers and Facilitators to Scale-up

In this section, we discuss three areas that influence an activity's *scalability* or potential for successful scale-up: characteristics of the activity, stakeholders involved in its implementation, and the broader organizational or external environment. Influences may be positive (i.e., facilitators) or negative (i.e., barriers). Although scalability may be assessed informally, some frameworks include a formal scalability assessment, which takes the form of a checklist or worksheet. Appendix B provides an overview of scalability assessments IDA found in our literature review.

1. Characteristics of the Activity

a. Evidence of effectiveness

Activities with strong evidence of effectiveness are better positioned for successful scale-up. This evidence serves two purposes: it lends credibility to the activity among potential adopting organizations and decision-makers,[44] and it improves the possibility that the activity will achieve and maintain effectiveness at scale.[45] Notably, evidence of process and outcome effectiveness was a common requirement for an activity to proceed out of the *pilot phase* in the frameworks IDA reviewed;[46] however, stakeholders may proceed with

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[43] Centre for Epidemiology and Evidence, "Increasing the Scale of Population Health Interventions: A Guide;" Massoud, Donohue, and McCannon, *Options for large-scale spread of simple, high impact interventions*.

[44] "Practical guidance for scaling up health service innovations," *World Health Organization*; Massoud, Donohue, and McCannon, *Options for large-scale spread of simple, high impact interventions*.

[45] Changes in program delivery made during scale-up may attenuate the magnitude of program effects. Therefore, larger effects demonstrated during initial evaluations may support continued, albeit potentially smaller, effects at scale. Centre for Epidemiology and Evidence, "Increasing the Scale of Population Health Interventions: A Guide."

[46] "Practical guidance for scaling up health service innovations," *World Health Organization.*

certain *preparatory phase* steps (e.g., building stakeholder capacity) concurrent with smaller-scale evaluation in the *pilot phase*.[47]

b. Feasibility

Evidence of effectiveness also relates to the activity's feasibility in diverse implementation contexts—another key influence on scale-up. Previously-demonstrated outcome effectiveness among diverse populations[48] and implementation success in multiple contexts suggest greater potential for successful scale-up.[49] Conversely, failure to adapt to local context can be a major barrier to scale-up.[50] Activities with simpler designs and a few highly-standardized elements may also scale more readily[51] (e.g., discreet trainings that use train-the-trainer models). For more multifaceted activities, the presence of easy-to-understand and adaptable elements can facilitate adoption in new contexts.[52]

c. Value-add beyond existing activities

The extent to which the activity has a relative advantage over other currently-available activities (meaning that it out-performs other activities (e.g., in terms of outcome effectiveness, cost-effectiveness, or feasibility)) can also influence the success of scale-up efforts.[53] Another area in which an activity may have a relative advantage is its relevance to the issues, priorities, and strategic needs of potential adopting organizations. This final point is also important to stakeholder buy-in; we discuss this further in the section 2.D.2.

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47 Centre for Epidemiology and Evidence, "Increasing the Scale of Population Health Interventions: A Guide."

48 Centre for Epidemiology and Evidence, "Increasing the Scale of Population Health Interventions: A Guide."

49 Cooley, "Scaling up—from vision to large-scale change: a management framework for practitioners."

50 Holly Jordan Lanham, Luci K. Leykum, Barbara S. Taylor, C. Joseph McCannon, Curt Lindberg, and Richard T. Lester, "How complexity science can inform scale-up and spread in health care: understanding the role of self-organization in variation across local contexts," *Social Science & Medicine* 93 (2013): 194–202; Barker, Reid, and Schall, "A framework for scaling up health interventions: lessons from large-scale improvement initiatives in Africa."

51 Barker, Reid, and Schall, "A framework for scaling up health interventions: lessons from large-scale improvement initiatives in Africa;" Massoud, Donohue, and McCannon, *Options for large-scale spread of simple, high impact interventions*.

52 "Practical guidance for scaling up health service innovations," *World Health Organization*; Cooley, "Scaling up—from vision to large-scale change: a management framework for practitioners;" Barker, Reid, and Schall, "A framework for scaling up health interventions: lessons from large-scale improvement initiatives in Africa."

53 "Practical guidance for scaling up health service innovations," *World Health Organization*; Barker, Reid, and Schall, "A framework for scaling up health interventions: lessons from large-scale improvement initiatives in Africa;" Office of Healthcare Innovation and Learning, *Diffusion Playbook*.

2. Stakeholders Involved in Scale-up

a. Engaged stakeholders

The stakeholders involved in scale-up include implementers of the activity and other decision-makers as well as the activity's recipients or participants. To facilitate scale-up, these stakeholders should perceive a need for the activity and find that it aligns with their values and preferences.[54] Toward this end, a scale-up strategy can benefit from advocates who can credibly communicate the activity's value and the vision for implementation.[55] In doing so, they can overcome barriers presented by staff more hesitant to adopt an activity.[56] Active engagement with recipients or participants within the adopting organization can also facilitate successful scale-up.[57] Early in scale-up planning, this engagement might include involving local stakeholders in needs assessments or other planning processes to ensure the adopted or scaled-up activity satisfies an identified gap or priority area in the community.[58] During the implementation process, it may include requesting and incorporating end-user feedback on materials or plans to ensure relevance and acceptability, or a communications campaign to awareness of and access to the activity.[59]

b. Supportive leadership

Leadership support is one of the most frequently cited facilitators for scale-up.[60] Although support from top-level leadership can better facilitate change within a system,[61] leaders and key decision-makers can exist at multiple organizational levels. Leaders can

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54 "Practical guidance for scaling up health service innovations," *World Health Organization*; Barker, Reid, and Schall, "A framework for scaling up health interventions: lessons from large-scale improvement initiatives in Africa."

55 "Practical guidance for scaling up health service innovations," *World Health Organization* ; Massoud, Donohue, and McCannon, *Options for large-scale spread of simple, high impact interventions*.

56 World Health Organization and United States Agency for International Development, "Guide to fostering change to scale up effective health services," *World Health Organization* (2013), https://iris.who.int/handle/10665/96611.

57 Gavin Yamey, "Scaling up global health interventions: a proposed framework for success," *PLoS Medicine* 8, no. 6 (2011): e1001049.

58 "Conducting a Community Landscape Analysis," National Student Support Accelerator, accessed March 16, 2024, https://studentsupportaccelerator.org/tutoring/program-focus/conducting-community-landscape-analysis; Steps to conduct a needs assessment, accessed March 16, 2024, https://www.cdc.gov/healthyschools/tths/trainingcadre/resources/assessment_steps.docx; VA resources.

59 Office of Healthcare Innovation and Learning, *Diffusion Playbook*; Nolan et al., "Using a framework for spread: the case of patient access in the Veterans Health Administration."

60 Barker, Reid, and Schall, "A framework for scaling up health interventions: lessons from large-scale improvement initiatives in Africa."

61 *World Health Organization* and *United States Agency for International Development*, "Guide to fostering change to scale up effective health services."

support changes in the political, legal, or financial systems required for an activity's institutionalization,[62] and they can help ensure resource requirements are met during budget planning activities.[63] Leadership support can also facilitate technical assistance and capacity building.[64] Even given the presence of supportive leaders, leadership turnover presents a significant barrier to scale-up, as new leaders may lack knowledge of the key characteristics (e.g., relevance, relative advantage) of the specific activity to be scaled.[65]

3. Organizational Environment or Context

a. Organizational capacity

Within the broader originating and adopting organizations, capacity for implementation, evaluation, and oversight processes also influence scale-up.[66] Capacity encompasses availability of funding and staffing resources, the skills or capabilities of staff, and the presence of infrastructure required for scale-up.[67] Although efforts to secure these things can be built into the scale-up plan, the extent to which they already exist prior to scale-up can affect the ease or difficulty of implementing the scale-up plan.[68]

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62 Abigail A. Fagan, Brian K. Bumbarger, Richard P. Barth, Catherine P. Bradshaw, Brittany Rhoades Cooper, Lauren H. Supplee, and Deborah Klein Walker, "Scaling up evidence-based interventions in US public systems to prevent behavioral health problems: Challenges and opportunities," *Prevention Science* 20 (2019): 1147–1168; VA.gov Home | Veterans Affairs [Internet], accessed November 5, 2023, https://www.va.gov/; VA | VHA Innovation Ecosystem [Internet], accessed November 5, 2023, https://www.innovation.va.gov/ecosystem/views/home.html; VHA - Diffusion of Excellence [Internet], accessed November 5, 2023, https://www.innovation.va.gov/ecosystem/views/diffusion-excellence/national-diffusion-practices.

63 Bulthuis et al., "Factors influencing the scale-up of public health interventions in low-and middle-income countries."

64 "Practical guidance for scaling up health service innovations," *World Health Organization*.

65 Fagan et al., "Scaling up evidence-based interventions in US public systems to prevent behavioral health problems: Challenges and opportunities."

66 "Practical guidance for scaling up health service innovations," *World Health Organization*; Barker, Reid, and Schall, "A framework for scaling up health interventions: lessons from large-scale improvement initiatives in Africa."

67 Carol A. Brownson, Peg Allen, Samuel C. Yang, Kathryn Bass, and Ross C. Brownson, "Peer Reviewed: Scaling Up Evidence-Based Public Health Training," *Preventing Chronic Disease* 15 (2018); Joseph A. Durlak and Emily P. DuPre, "Implementation matters: A review of research on the influence of implementation on program outcomes and the factors affecting implementation," *American Journal of Community Psychology* 41 (2008): 327–350.

68 Andrew Milat, Karen Lee, Kathleen Conte, Anne Grunseit, Luke Wolfenden, Femke Van Nassau, Neil Orr, Padmaja Sreeram, and Adrian Bauman, "Intervention Scalability Assessment Tool: A decision support tool for health policy makers and implementers," *Health Research Policy and Systems* 18 (2020): 1–17.

b. Organizational commitment

Similarly, commitment and consensus regarding scale-up within the broader organization can influence success.[69] In earlier stages of scale-up, implementers can partner with other divisions or offices within their organization to access additional expertise and resources for their activity[70] and to bolster areas in which they lack implementation capacity.[71] Prior experience in scale-up or program adoption/adaptation can furthermore be particularly valuable within both originating and adopting organizations.[72]

E. Learning from Experience: The Veterans Health Administration (VHA)

IDA identified the Veterans Health Administration's (VHA's) Diffusion of Excellence effort as a promising opportunity for NGB to learn from an established model for scale-up within a complex, decentralized organizational structure. The Diffusion of Excellence effort is part of the VHA's innovation process, The VHA Innovation Ecosystem, which aims to disseminate health care innovations throughout the country.[73] This effort begins with an innovation process similar to NGB's process for identifying promising state-level programs. It then moves into a scale-up process, VHA Diffusion of Excellence.[74] Through this scale-up process, the VHA solicits submissions for clinical innovations from employees in a "shark tank-style" competition. To be eligible, innovations must be successfully implemented in a facility, provide evidence of effectiveness, and address a VHA priority area. Winning innovations receive support from the Diffusion of Excellence program to undergo facilitated replication across additional VHA facilities within a six- to nine-month period. After the facilitated replication period, innovations may move forward to different diffusion pathways depending on the program's replicability, stakeholder support, and cost-effectiveness. VHA Diffusion of Excellence has supported national scale-up of 13 promising practices across VHA facilities.[75] Table 3

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69 *World Health Organization* and *ExpandNet*, "Beginning with the End in Mind."

70 Abigail A. Fagan, Brian K. Bumbarger, Richard P. Barth, Catherine P. Bradshaw, Brittany Rhoades Cooper, Lauren H. Supplee, and Deborah Klein Walker, "Scaling up evidence-based interventions in US public systems to prevent behavioral health problems: Challenges and opportunities," *Prevention Science* 20 (2019): 1147–1168.

71 *World Health Organization* and *United States Agency for International Development*, "Guide to fostering change to scale up effective health services."

72 "Practical guidance for scaling up health service innovations," *World Health Organization*.

73 VA | VHA Innovation Ecosystem [Internet], accessed November 5, 2023, https://www.innovation.va.gov/ecosystem/views/home.html.

74 Office of Healthcare Innovation and Learning, *Diffusion Playbook.*

75 "National Diffusion Practices," https://www.innovation.va.gov/ecosystem/views/diffusion-excellence/national-diffusion-practices/.

summarizes lessons learned regarding challenges and best practices from the VHA's experiences. Beyond learning from the Diffusion of Excellence process itself, NGB may find the challenges and lessons learned from the VHA's innovations informative for NG programs.

Table 3. Summary of lessons learned from the VHA Innovation Ecosystem

Implementation challenges	Best practices for moving forward
Lack of leadership buy-in	• Meet with leadership early on to establish partnerships with other stakeholders (e.g., social work, suicide prevention) • Identify and engage local champions, beginning from the start of an innovation • Highlight an innovation's benefit and ease of use • Use evaluation findings to advocate for the innovation
Lack of human resources	• Ensure appropriate staffing and coverage before implementation • Use existing staff; build partnerships with other departments for support and collaboration
Lack of documentation and adherence to guidance	• Develop standard operating procedures (SOP) to provide guidance on how to run the innovation consistently • Conduct regular SOP and program material reviews to ensure relevance/applicability
Lack of participant engagement and retention	• Analyze Strengths, Weaknesses, Opportunities, Threats to identify barriers to participation • Collaborate with successful teams to learn best practices from other sites • Request and incorporate end-user feedback on implementation materials to ensure relevance for target audiences

Taking lessons learned from the scale-up frameworks identified in IDA's literature review and VHA's Diffusion of Excellence program, IDA developed the WRF Scale-up Framework described in the next chapter.

3. WRF Scale-up Framework

To achieve successful scale-up of best practices and effective programs across the NG, IDA recommends a phased approach, with certain activities occurring in a deliberate sequence to prepare for and execute an activity's scale-up. Figure 2 illustrates the steps of the proposed scale-up framework.

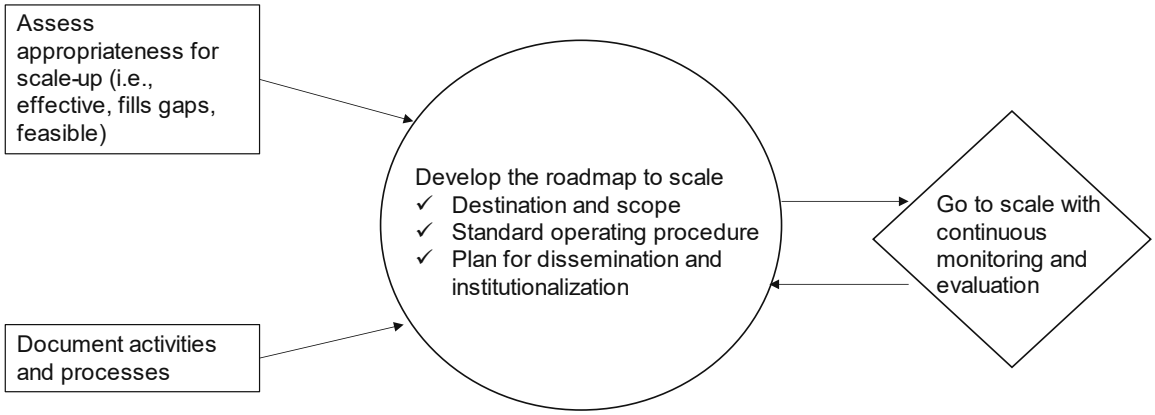

Figure 2. Scale-up Framework Overview

The framework begins with Step 1—assessing a given activity's appropriateness for scale-up based on three general criteria: meeting standards for evidence of effectiveness, filling a gap in NGB's prevention portfolio, and possessing scalable characteristics. It then proceeds to Step 2—detailing the key elements of both the activity and the processes it involves. We note that steps 1 and 2 may overlap in practice, as understanding the activity is necessary to assessing appropriateness for effectiveness. In Step 3, the framework moves into planning a roadmap for scale-up. Execution of those plans occurs in Step 4, including both implementation and continuous monitoring and evaluation. Steps 3 and 4 allow for continued iteration, as scale-up plan should be refined based on monitoring and evaluation findings and any adaptations made as the activity scales to new contexts.

A. Step 1: Assess Appropriateness for Scale-up

The first step in IDA's proposed scale-up framework is to determine whether the activity of interest is appropriate for scale-up. For NGB's purposes, IDA defines appropriateness for scale-up as (1) meeting minimum standards for evidence of effectiveness, (2) filling a gap in NGB's prevention portfolio, and (3) possessing qualities

that make scale-up feasible. We discuss each of these aspects in the following three subsections.

1. Meets standards for evidence of effectiveness

Scale-up literature and frameworks consistently establish evidence of effectiveness as a necessary pre-requisite to dissemination and/or institutionalization of an intervention. This fulfills NGB's basic goal of scale-up efforts: to increase the use of effective activities across the NG. Several typologies exist for rating evidence of effectiveness; IDA previously reviewed and adapted these into five evidence levels for application to NG prevention activities. [76] These evidence levels are summarized in Table 4 and described in full in Appendix A. We recommend that activities under consideration for scale-up have at least *moderate* evidence of effectiveness, as defined in IDA's evidence levels, before going to scale. This recommendation is informed by the Society for Prevention Research's standards of evidence for efficacy, effectiveness, and scale-up,[77] as well as DoD integrated prevention policy regarding the use of research-based prevention activities.[78]

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[76] See Appendix B of IDA's 2021 report for evidence level grades applied to prevention approaches.

[77] Denise C. Gottfredson, Thomas D. Cook, Frances EM Gardner, Deborah Gorman-Smith, George W. Howe, Irwin N. Sandler, and Kathryn M. Zafft, "Standards of evidence for efficacy, effectiveness, and scale-up research in prevention science: Next generation," *Prevention science* 16 (2015): 893–926.

[78] DoDI 6400.09 defines research-based prevention activities as "activities selected based on research evidence that they have shown promise in evaluations to decrease the behavior of interest for a specific population or that the activity affected one or more contributing factors to the behavior of interest in settings similar to those being considered for the activity and that positive effects were sustained over time." Office of the Under Secretary of Defense for Personnel and Readiness, DoDI 6400.09, *DoD Policy on Integrated Primary Prevention of Self-Directed Harm and Prohibited Abuse or Harm,* 2020, 30, https://www.esd.whs.mil/Portals/54/Documents/DD/issuances/dodi/640009p.pdf.

Table 4. Evidence Levels Required before Scale-up

Evidence Level		Qualifying Evidence to Demonstrate Improvement in Participant Outcomes
✓	Very strong evidence	Systematic reviews/meta-analyses[a] of Randomized Control Trials (RCTs)[b] and experimental designs and/or consistent findings from multiple RCTs
✓	Strong evidence	RCTs and experimental designs and/or consistent findings from multiple quasi-experimental[c] studies
✓	Moderate evidence	Quasi-experimental designs and/or consistent findings from multiple single-group designs with pre- and post-tests[d]
✗	Minimal evidence*	Single-group designs with pre- and post-tests and/or multiple single-group designs with post-tests only
✗	Has not been evaluated*	Lacks direct empirical evidence

* Requires further evaluation at a local-level; not yet appropriate to scale-up.

[a] A systematic review is a comprehensive literature review that analyses all studies falling under specified eligibility criteria. A meta-analysis uses statistics to combine and summarize the results of multiple studies to determine the overall magnitude of an effect (e.g., the size of the effect of a prevention program on key outcomes).

[b] An RCT is a prospective scientific experiment that randomizes its participants to either a treatment group, which receives the product of interest (e.g., training, intervention), or a control group, which does not receive said product. It's commonly referred to as the gold standard study design to establish causality (i.e., the treatment caused an improvement in examined outcomes).

[c] A quasi-experimental design compares a treatment group that receives the product of interest to a comparison group. However, participants are not randomly assigned to group. Rather, the comparison group is selected to be closely matched to the treatment group. Causality cannot be established.

[d] Single-group designs provide the treatment (e.g., training, intervention) to only one group and compare outcomes as measured before the introduction of the treatment to outcomes measured after the introduction of the treatment. Causality cannot be established.

In these rankings, "demonstrate improvement in participant outcomes" can be understood as including both *statistical significance* (i.e., statistical tests indicate that the observed change is not due to chance) and *practical significance* (i.e., statistical tests indicate that the observed change has a meaningful effect size, as compared with changes observed in activities addressing similar outcomes). Moderate, Strong, and Very Strong evidence ratings require *consistent findings from multiple evaluations*. When applied to potential scale-up in the NG, we can understand consistency as comprising three areas: (1) in multiple settings (e.g., various states, Army National Guard (ARNG) and Air National Guard (ANG) units), (2) among various target populations and subpopulations (e.g., junior enlisted service members, female service members, service members in first-

response units), and (3) over an appropriate period of time after the intervention (e.g., at a 6-month follow-up).[79]

Activities that have no evidence, or minimal but promising evidence, from an initial location, among a narrow population and/or in a limited timeframe (e.g., immediately pre- and post-intervention), require further evaluation before scaling. Reaching at least a moderate level of evidence requires investment, including but not limited to human resources, funding, and time to both implement the activity and assess longitudinal outcomes. Still, stakeholders may simultaneously begin preparing for scale-up as they evaluate at a smaller scale. Specifically, preparation for *Step 2: Detail Activity Elements and Processes* and *Step 3: Outline the Roadmap to Scale-up* may be possible to begin while refraining from investing extensive resources into an as-yet unproven activity. This is consistent with recommendations identified in the literature to incorporate scalability considerations into the planning and refinement of an activity (see Chapter 2.B).

It may seem obvious to point out that ineffective activities and those with detrimental effects should be discontinued and/or re-designed. Nonetheless, assessing this may be less than straightforward. Activities that lead to some improved outcomes may also lead to detrimental effects on other outcomes, and outcomes may vary among sub-populations. Any assessment of an activity's effectiveness should consider the scope of the evaluation, such as whether it measured a sufficient list of outcomes and analyzed outcomes among relevant sub-populations.[80] Consultations with Subject Matter Experts (SMEs) may be necessary to understand the limitations of an activity and address potential weaknesses.

2. Addresses a gap in NGB's prevention portfolio

Another key criterion to determine appropriateness for scale-up is whether the activity fills a gap in NGB's portfolio of prevention activities. NGB can use the WRF Prevention Framework (Figure 3), which outlines six strategy areas that comprise a comprehensive approach to prevention, to characterize gaps. Gaps may reflect the *absence of an activity* or the use of a *weak activity*. For example, NGB may wish to replace an activity that lacks cost-effectiveness and/or outcome effectiveness. Gaps should align with not only the strategy areas outlined in the WRF Prevention Framework, but also specific data-informed needs, particularly in terms of the incidence of harmful behaviors and the prevalence of risk/protective factors among members of the NG (or more specific sub-populations). Based on these gaps, NGB should clearly define the purpose and end-goals of scale-up.

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[79] Gottfredson et al., "Standards of evidence for efficacy, effectiveness, and scale-up research in prevention science: Next generation."

[80] For further discussion, see Gregory A. Aarons, Marisa Sklar, Brian Mustanski, Nanette Benbow, and C. Hendricks Brown, "Scaling-out" evidence-based interventions to new populations or new health care delivery systems," *Implementation Science* 12 (2017): 1–13.

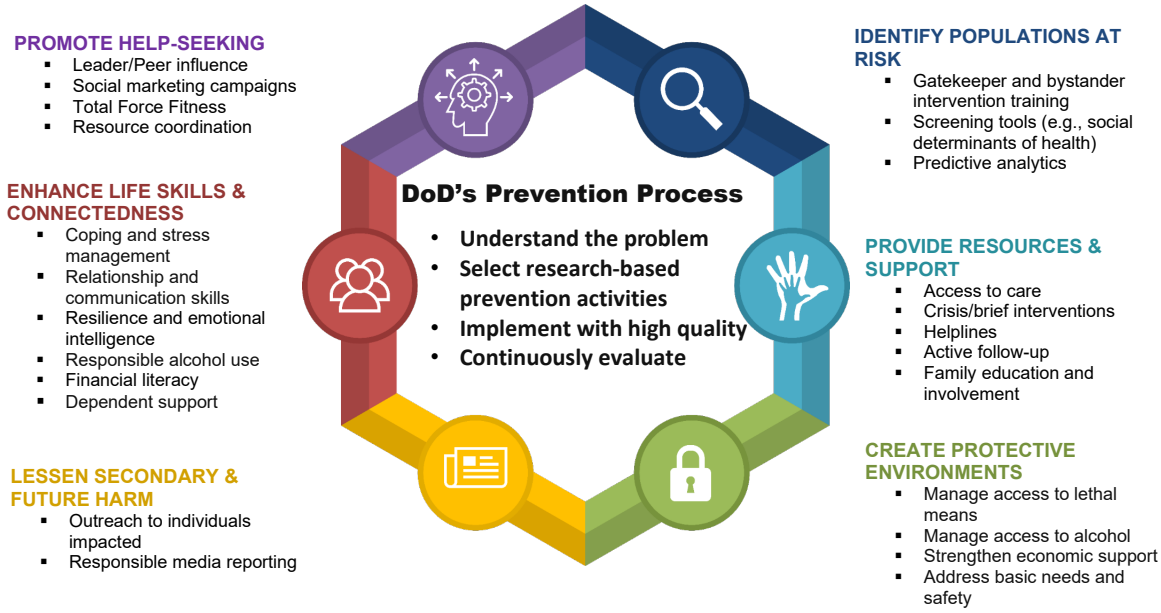

Figure 3. WRF Prevention Framework

In practice, NGB can leverage various processes to identify gaps. NGB naturally has greater awareness of NGB-level gaps, but avenues exist to assess gaps in states/territories. IDA's 2019 report includes recommendations for surveying the landscape of activities operating independently in NG states/territories.[81] Newer processes established in DoD prevention policies, to include Comprehensive Integrated Prevention Plans (CIPPs) and data collections/aggregation responsibilities of the Integration Prevention Workforce (IPW), provide opportunities for a centralized assessment of gaps related to activities and service members' needs. NGB should review CIPPs and data across NG states/territories to characterize what gaps exist and which are appropriate to fill at the NGB level and/or at the state/territory level.

3. Possesses scalable qualities

In addition to outcome effectiveness and feasibility, NGB must assess the extent to which activities of interest for scale-up are, indeed, scalable. This is important to do before initiating any efforts toward scale-up but can still be useful to activities that are already in the early stages of scaling. This is because assessing scalability will inform not only the decision to scale, but also the scale-up strategy and refinement of the activity.

In Table 5, IDA proposes a scalability assessment, adapted from the findings of our literature review described in Chapter 2.D. IDA recommends using these criteria as a

[81] Dina Eliezer, David R. Graham, and Susan L. Clark-Sestak, *National Guard Suicide Prevention Innovation Framework*, IDA Paper P-10468 (Alexandria, VA: Institute for Defense Analyses, 2019).

discussion tool; they are not intended to form a checklist to score an activity's scalability. Ideally, an activity would align with most of the "more scalable" criteria to move forward with scale-up. In areas where an activity aligns with the "less scalable" criteria, NGB should explore whether refinements are possible to address weaknesses (e.g., more clearly defining the intervention). In some areas, decision-makers may be able to plan for the challenges these "less scalable" elements may cause when writing the scale-up plan. If an activity aligns with most of the "less scalable" criteria, it may be inappropriate to proceed with scale-up.

Table 5. WRF Scalability Assessment

	More scalable	Neutral	Less scalable
Characteristics of the activity and its implementation requirements	Activity's key elements are clearly defined and documented	-	Activity's key elements are not clearly defined or documented
	Activity is simple, with few components	-	Activity is complex, with many different components
	Few personnel involved in implementation plan	-	Many personnel involved in implementation plan
	Possible to implement with limited expertise or experience	-	Expertise or extensive experience necessary to implement
	Aligns with existing processes and policies	-	Conflicts with existing processes or policies
	Uses existing infrastructure and resources	-	Requires new infrastructure or resources
	Implementation approach adaptable to different contexts	-	Implementation approach is rigid
	Activity has been implemented and evaluated in multiple settings relevant to scale-up	-	Activity has been implemented and/or evaluated in only a single setting, or in other settings not relevant to scale-up
Characteristics of the receiving populations and organizations	Organization/office responsible for implementation clearly designated	-	Organization/office responsible for implementation unspecified or non-existent
	Key stakeholders support adoption of the activity	-	Stakeholders show weak buy-in or opposition to adoption of the activity
	Adopting organization, target population, and external context is similar to the original implementation	-	Adopting organization, target population, and external context is different from the original implementation
	Personnel and organization have capacity to implement the activity	-	Personnel and organization have insufficient capacity to implement the activity
	Personnel and organization have capacity to monitor and evaluate the activity	-	Personnel and organization do not have sufficient capacity to monitor and evaluate the activity

Ultimately, an activity that demonstrates outcome effectiveness, fills a gap in NGB's prevention portfolio, and possesses scalable qualities can be considered appropriate to scale-up.

The output of Step 1: Assessing Appropriateness for Scale-up in the scale-up framework is a clearly articulated vision for scale-up: the intervention to be scaled, and the justification for or desired impact of scale-up.

B. Step 2: Detail Activity Elements and Processes

Fully detailing the activity, including the key elements of its intervention and its implementation processes, is the next step in the proposed scale-up framework. Although details about the activity should inform the decision to scale, this step aims to fill in any remaining gaps in information about the activity and the specific processes involved in its implementation. Details about an activity can be understood as its "what" of the intervention that is delivered,[82] for example, the curriculum taught in training, messages and materials used in a social marketing campaign, or the language and elements written into a new policy or practice guide. Implementation processes are the activity's "how" and "who".[83] They may include, for example, the training format, communication channels, and monitoring and evaluation approach, as well as more logistical elements, such as the offices or positions responsible for implementation, management, and supervision; the procedures for scheduling or securing approvals; and sources of funding. Additionally, fully describing an activity requires contextual information,[84] such as the originating state/territory's structure (e.g., primarily M-Day or full-time NG members) and broader environment (e.g., urban or rural, civilian employment or economic trends, culture). This information should provide a logical representation of the activity, linking its intervention with the infrastructure and other components involved in its implementation.

NGB aims to scale activities developed organically in NG states/territories and activities licensed from external organizations. Given this, NGB may have only partial access to information about an activity before selecting it for scale-up, and/or the originating organization may not have documented all elements. Gathering this information may require significant effort; one scale-up framework IDA reviewed suggested that activities should estimate six months to one year for this process.[85] However, NGB can leverage the deliverables WRF currently collects from its small-scale state activities (e.g., required quarterly reporting on process and outcome effectiveness) to begin forming a better understanding of the activity as early as possible. NGB can supplement these deliverables using several qualitative methods, such as document review, interviews, stakeholder meetings, site visits, and observations, to ultimately compile a

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82 "Select, ADAPT, Evaluate," Centers for Disease Control and Prevention, accessed March 15, 2024, https://vetoviolence.cdc.gov/apps/adaptation-guidance/.

83 "Select, ADAPT, Evaluate."

84 Cooley, "Scaling up—from vision to large-scale change: a management framework for practitioners."

85 Cooley, "Scaling up—from vision to large-scale change: a management framework for practitioners."

detailed description of the activity (e.g., a logic model and/or a standard operating procedure; SOP).[86]

IDA recommends NGB undertake information collection and documentation in collaboration with the original designers of the activity, other stakeholders involved in local implementation (e.g., state leaders, program managers and/or providers), and researchers or SMEs who can assess clarity and completeness. It is important to note that state program managers in the originating organization may be over-tasked if required to do this process on their own. NGB should consider options for offering additional support (e.g., funding staff at the state-level or tasking NGB-level staff to assist).

The output of Step 2: Detail Activity Elements and Processes is a written and visual description of the activity and its operating environment.

C. Step 3: Outline the Roadmap to Scale-up

Once NGB has made the decision to scale a particular activity, it can begin planning the scale-up process. IDA recommends working backward—first identifying a desired end-state, then determining the most appropriate mechanism(s) to achieving that end-state, and then compiling the resources to move the scale-up process forward.

1. Describe the Destination

Defining the desired scope of scale-up is prerequisite to identifying the scale-up pathway. This includes the extent of horizontal scale-up (i.e., extension to new populations or delivery systems), for example, a characterization of the additional NG states/territories or service member populations that the scaled-up activity is intended to reach. It also includes characterizing the form vertical scale-up or institutionalization (i.e., change to infrastructure or systems) will ultimately take. Establishing the desired scope of institutionalization will require decision-makers to address a few fundamental questions as discussed in Chapter 3. Specifically, extant scale-up frameworks suggest NGB may choose between expansion, in which the originating state/territory maintains control over the activity and adopting states/territories join as partners, and replication, in which adopting sates/territories implement an activity independently. In a third, top-down approach, NGB would assume ownership and control of the activity.[87] In this case, NGB will need to consider whether adoption of the activity in new locations will be voluntary or mandated, and whether longer-term implementation will be centralized or decentralized (e.g., managed at the NGB- or state/territory-level). Ultimately, the "destination" of scale-up

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[86] Existing resources are available to support this process, e.g., https://vetoviolence.cdc.gov/apps/adaptation-guidance/; https://www.msiworldwide.com/wp-content/uploads/2023/09/ScalingUp_toolkit_2021_v5_0-1.pdf (see Table 8 - Organizational Profile).

[87] "Practical guidance for scaling up health service innovations," *World Health Organization.*

should align with the vision for the activity's impact and the nature of the activity, as described in sections 3.A and 3.B of this chapter.

2. Select Scale-up Mechanisms

The *scale-up mechanism* refers to the factors that support dissemination of the activity (i.e., horizontal scale-up), as well as to the policies, funding streams, systems, and other organizational infrastructure that support large-scale implementation (i.e., vertical scale-up or institutionalization). Here, we describe several mechanisms that NGB can consider when planning for scale-up. The appropriateness of any given scale-up mechanism will vary according to the nature of the scaling activity and the context of its implementation (see Chapter 3).

a. Mechanisms to facilitate dissemination and adoption

WRF can horizontally scale an activity by (1) disseminating information about the activity among key stakeholders, (2) promoting leadership buy-in for adoption of the activity, and (3) aligning with strategic requirements at the state level. Notably, these scale-up mechanisms may facilitate organic (i.e., voluntary) diffusion of an activity among states/territories.

Dissemination of information aims to increase awareness of the activities that are available for adoption in NG states/territories and of the steps required to bring the activity to one's state/territory. Dissemination should leverage multiple forms of existing communication channels. These channels include publications that target NG audiences, such as IDA's State Programs Annual Reports[88] and Prevention Resource Guide,[89] NGB's Holistic Wellness Challenge spotlights,[90] and WRF's website. They also include interpersonal communication and professional networking, such as presentations at NG symposia and conferences (e.g., Integrated Prevention Program (IPP) Symposium and other program office symposiums; NG Association of the United States (NGAUS), Adjutants General Association of the United States (AGAUS), and Enlisted Association of the NG of the United States conferences). Many program offices (e.g., IPP, Sexual Assault Prevention and Response, Holistic Health and Fitness) also have periodic all-calls that connect stakeholders across states/territories; these provide a forum in which NGB can share information about scaling activities that align with each entity's particular focus area. Information shared through each channel should be tailored to relevant stakeholders to build buy-in and secure tangible support. For example, communications can target leaders

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88 Williams et al., *2022 State Programs Annual Report: National Guard Bureau Warrior Resilience and Fitness*.

89 Available upon request from IDA or WRF.

90 See https://www.nationalguard.mil/Resources/Holistic-Wellness-Challenge/.

who are in positions to use policy and resource allocation to support activity adoption within a state/territory via policy or resource allocation.[91]

Promoting leadership buy-in for an activity's adoption in additional NG states/territories complements efforts to disseminate information. State leader engagement and support for an activity is itself a powerful mechanism to facilitate adoption.[92] Indeed, several WRF state programs (e.g., Buddy Aid, Start, Purple Resolve) have expanded to additional states at the request of state leaders at the highest levels (i.e., The Adjutant General (TAG) and/or Assistant Adjutant General (ATAG)). Managers of these programs provided information about the program (e.g., about alignment with critical state needs, evaluation findings, and implementation requirements). Supportive state leaders then provided resources (e.g., staff, time, funding) and/or directives (e.g., requiring service member participation) that enabled implementation. Leaders can also communicate a vision or sense of urgency among subordinate staff regarding the use of an activity, or even mandate the activity within their state.[93] NGAUS and AGAUS are valuable forums for sharing information and building buy-in among high-level leaders across states/territories.

An activity's **alignment with a specific requirement or mission** can also facilitate buy-in. As discussed in section 3.A.2, activities selected for scale-up should align with gaps in the NGB portfolio; this avoids redundancy and justifies scale-up. Beyond this, aligning with a requirement or mission can provide an organizational path to adoption and/or remove bureaucratic hurdles. Decision-makers may pursue policy guidance on the use of designated activities to fulfil a requirement (e.g., an annual training requirement or a National Defense Authorization Act requirement), or they may authorize elements of an activity that align with key prevention goals (e.g., allowing safe storage of firearms on base). The IPP is an example of an opportunity to align with an organization's mission. NGB may recommend that states/territories include activities that have been selected for scale-up in their CIPPs. In the CIPP, state prevention teams must specify the research-informed activities they will use to address service member risk factors and prevent harmful behaviors in their state. WRF has sought to provide resources listing effective prevention activities to states to support CIPP development. Providing information about activities selected for scale-up to inform the CIPP submission cycle would make use of existing lines of communication between NGB and implementers in the 54 NG states/territories.

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91 "Practical guidance for scaling up health service innovations," *World Health Organization*.

92 Barker, Reid, and Schall, "A framework for scaling up health interventions: lessons from large-scale improvement initiatives in Africa."

93 Massoud, Donohue, and McCannon, *Options for large-scale spread of simple, high impact interventions*.

b. Mechanisms to facilitate institutionalization

Vertical scale-up, or institutionalization, aims to embed an activity into the organizational infrastructure of the NG, for example, implementation and management processes, learning and capacity-building systems, data systems, and funding streams.[94] Although institutionalization may still serve to support voluntary adoption of an activity among NG states/territories, the discussion here describes scale-up mechanisms that reflect greater centralization at the NGB-level. IDA describes three broad, interrelated mechanisms for institutionalization at the NGB-level: a programmatic home, a funding stream, and supporting policy or instructions.

A **programmatic home** refers to the entity that will ultimately have responsibility for the scaling activity. When planning scale-up, NGB should consider identifying an appropriate programmatic home at the NGB level. This may be accomplished by housing the activity within WRF, but scale-up may also require looking outside WRF. Within NGB's Manpower and Personnel Directorate (J1), there are six divisions, each with responsibility for particular program areas (i.e., WRF, Sexual Assault, Prevention and Response (SAPR), Family Programs, Youth Programs, Organization and Manpower, and the Office of Equal Opportunity).[95] Indeed, in NGB's early experiences supporting the expansion and continuation of state-level activities, WRF has served both as a programmatic home (e.g., for LivingWorks Start, MyPrime, and the Connectedness and Relationship Education Program) and as an intermediary that connected activities with stakeholders in relevant J1 divisions (e.g., connecting Buddy Aid to the Sexual Assault Prevention and Response office).

These NGB-level programmatic homes have served several functions, including putting service members on orders or contracts to allow them to manage national-level implementation of an activity; using their authority to provide or secure approval for states/territories to use an activity to fulfill a requirement; providing legitimacy, oversight, and accountability for activities;[96] and funding the activity's resource requirements. For activities licensed or contracted from external companies, programmatic homes may seek to establish contracting guidance or mechanisms that allow states to purchase the activity

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[94] Barker, Reid, and Schall, "A framework for scaling up health interventions: lessons from large-scale improvement initiatives in Africa."

[95] "Manpower and Personnel Directorate," accessed March 15, 2024, https://www.nationalguard.mil/Leadership/Joint-Staff/J-1/.

[96] DoD's Prevention Plan of Action (PPoA) emphasizes the importance of oversight, including to promote accountability for progress on improving outcomes and guiding stakeholders across organizational components. See https://www.sapr.mil/sites/default/files/PPoA_2.0.pdf.

(e.g., using an Indefinite Delivery, Indefinite Quantity contract).[97] Implementation, however, is typically executed by corresponding entities within each participating state/territory. This can present a challenge for coordination, as state/territory organizational structures do not all match NGB's organizational structure. For example, although NGB's resilience activities fall under the J1, many states have created a J9 to house them. NGB's WRF division is Joint, but oftentimes state/territory-level activities take place within one branch (i.e., Army or ANG); funding and requirements also may be branch-specific. Therefore, NGB will need to work with the implementers of scaling activities and the TAGs of participating states/territories to identify the appropriate entity to house the activity at the state-level, noting that this may differ from state to state.

An important aim institutionalization is the long-term sustainment of an activity. This requires a **funding stream**. Establishing a programmatic home can facilitate access to funding. This may be non-permanent funding (e.g., if NGB decision-makers direct funding from existing streams on an annual basis). For example, certain state program expansions have been funded through WRF's Programs and Partnerships branch budget or Beyond Yellow Ribbon funds. Alternatively, NG stakeholders may seek to secure permanent funding for the activity. This is often referred to as establishing the activity as a "program of record," which refers to having a dedicated line in NGB's longer-term budget.[98] Securing this dedicated funding line (i.e., becoming a program of record) takes place during the Program Objective Memorandum (POM) cycle, which allots funding for the 5-year Future Year Defense Program.[99] This takes place as part of the complex Program, Planning, Budget, and Execution Process and requires approval from NGB decision-makers at the highest levels.

Non-permanent funding may be both necessary and appropriate during early scale-up. After an activity has been selected for scale-up and its reach begins to expand, its effectiveness and feasibility must be continuously assessed (see section D below). If an activity maintains effectiveness at a higher level of scale, permanent funding may be considered. This would allow NGB to avoid losing a significant investment of resources if an activity ultimately proves to be unsuccessful at scale. Concomitantly, transparency about the status of an activity's funding, particularly with state/territory leaders, is essential

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97 "Indefinite Delivery, Indefinite Quantity Contracts," U.S. General Services Administration, November 9, 2020, https://www.gsa.gov/small-business/register-your-business/explore-business-models/indefinite-delivery-indefinite-quantity-idiq.

98 "DAU Glossary Definition," accessed March 15, 2024, https://www.dau.edu/acquipedia-article/program-record-por.

99 Amber Larkins, "Program Objective Memorandum (POM) Planning and the PPBE Process," July 8, 2021, https://www.decisionlens.com/blog/pom-planning.

during scale-up. This may inform states'/territories' decisions to invest their own resources or change infrastructure locally when adopting an activity.

The final element of NGB-level institutionalization we discuss consists of **policy and instructions**. NGB has various levers to facilitate and/or mandate scale-up across the NG. We previously discussed how an activity's alignment with policy requirements, an office's mission, and/or contracting mechanisms can facilitate voluntary adoption. NGB leadership may also decide to use a policy or Chief National Guard Bureau Instruction (CNGBI) to require states and territories to implement an activity. We recommend that mandating scale-up of an activity be reserved for high-urgency, simple-to-implement programs that are appropriate to broad audiences in diverse contexts. Although a mandate can lead to widespread adoption quickly, it can also present issues, including hindering adaptation (or entire removal of the activity) if it proves to be ineffective in certain contexts.[100] Policy requirements also present risks if state-level stakeholders do not support the activity or if there is insufficient capacity/resourcing to implement the activity.[101] We also note that even given a requirement to adopt an activity, the process of scaling up implementation across NG states and territories will likely still benefit from the mechanisms previously described in this section.

3. Package the Activity and Scale-up Plan

Given a well-defined end state for scale-up, NGB should next specify what states and territories will "receive" through the scale-up process. Scale-up frameworks describe this as the "scalable-unit"[102] or the "model"[103] to be scaled. As discussed in *Step 2: Detail Activity Elements and Processes*, this includes not only the specific intervention, but also other components involved in its implementation (i.e., the "what" as well as the "how" and "who"). Based on activity documentation and the desired scope of scale-up, stakeholders must determine what components are necessary for additional states/territories to successfully implement the activity. As discussed in Section 2.C.1.a, scale-up may require intentional departures from original implementation processes; simplifying the package of elements to be scaled may allow for greater flexibility to fit into diverse contexts.[104] Within the NG, packaging the activity for scale-up may also require the development of new

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[100] Centre for Epidemiology and Evidence, "Increasing the Scale of Population Health Interventions: A Guide."

[101] Cooley, "Scaling up—from vision to large-scale change: a management framework for practitioners."

[102] Barker, Reid, and Schall, "A framework for scaling up health interventions: lessons from large-scale improvement initiatives in Africa."

[103] Cooley, "Scaling up—from vision to large-scale change: a management framework for practitioners."

[104] Trisha Greenhalgh and Chrysanthi Papoutsi, "Spreading and scaling up innovation and improvement," *BMJ* 365, 2019; Cooley, "Scaling up—from vision to large-scale change: a management framework for practitioners."

components. For example, a tracker or checklist may be necessary to monitor delivery in new states, and plans should be made to facilitate capacity-building and communication across states and with NGB.

Ultimately, adopting states will require tools, materials, and guidance to implement the program. IDA recommends packaging these into a SOP that describes the specific program components and procedures that new states will adopt, as well as a toolkit of all program materials (e.g., slide decks, monitoring checklists, evaluation surveys).[105] Programs licensed or contracted from an external organization may require less documentation of the activity (e.g., a virtual or externally-facilitated training such as LivingWorks Start or MyPrime would not need to provide curriculum materials). However, these still require documentation of procedures for licensing/contracting and on-the-ground coordination, such as allocating drill time for participation, staffing a team to oversee logistics, and incorporating the activity into existing state/territory policies or requirements. Table 6 offers suggestions for content to include in an SOP and scale-up plan.

The outputs of Step 3: Outline the Roadmap to Scale-up include a comprehensive implementation SOP and a scale-up plan delineating procedure for resourcing, infrastructure, and capacity-building; details of the intervention; and a timeline for reaching the intended scale-up end-state.

[105] Existing NG programs offer partial examples, which may be available upon request. For example, Behavioral Health Primary Prevention has written an SOP and toolkit to guide adoption in new states, while CARE and Buddy Aid both house their training curricula and management and evaluation materials on Teams channels shared with participating states/territories.

Table 6. SOP and Scale-up Plan Contents

Overview
• Description of the activity and its goals • Evidence of process and outcome effectiveness • Justification and vision for scale-up
Description of required resources and infrastructure • Human resources (e.g., leadership, management, implementers or "frontline" staff) • Funding sources • Logistical requirements (e.g., physical space, time, staff training, electronics and information technology)
Step-by-step implementation guide • Required actions and milestones • Designated roles and responsibilities • Activity materials
Communication procedures and processes • Learning procedure connecting original designers/implementers with new adopters • Feedback and reporting processes between levels of decision-makers (NGB and states/territories) • Knowledge management system (e.g., Teams channel)
Monitoring and evaluation plan • Outcome evaluation plan and materials • Key performance indicators and quality monitoring tools (e.g., targets, checklists)

D. Step 4: Go to Scale - with Continuous Monitoring and Evaluation

With the groundwork laid in previous steps, activities can begin implementing their scale-up plans. Although the specific actions involved in scale-up will vary depending on the activity, we describe general consideration in the following sections.

1. Timeline

It is important to have appropriate expectations regarding the time required for an activity to reach scale. IDA's suggestions for creating an NGB scale-up framework are predicated on the use of a phased approach, building upon initial small-scale implementation and evaluation in a stepped manner, which is consistent with best practices in implementation science.[106] IDA's previous report recommended approximately three years of testing and refining interventions—first in a single state/territory and then in a few

[106] Greenhalgh and Papoutsi, "Spreading and scaling up innovation and improvement."

states/territories—before attempting broad scale-up.[107] Actual time required will depend on the activity and context. Here, we emphasize the importance of allowing ample time for activities to test their interventions on a small scale and investing time and resources into the early steps of the scale-up framework, particularly to improve activities' scalability. *In doing so, NGB can position activities to achieve "exponential" scale-up—that is, increasing the pace of expansion over time, rather than limiting them to slower, linear progress.*[108] This can lead to improved effectiveness and sustainability, whereas "explosive" approaches, which move quickly from the outset, risk sacrificing quality and effectiveness.[109] In WRF's experience supporting state programs, for example, Buddy Aid was able to scale to over 40 states in just a few years after its initial implementation in South Dakota and gradual expansion to Wyoming and Wisconsin using a train-the-trainer model.

2. Communication and Support

Regardless of the approach used for scaling any given program, IDA recommends NGB establish processes that connect the originating state/territory with the adopting states/territories, NGB stakeholders, and, as needed, external SMEs. These processes should aim to facilitate capacity-building, coordination, and buy-in among all parties to ensure that required activity elements are implemented correctly, address questions of fidelity and adaptation, and facilitate process improvement and accountability. WRF has regular "community calls" and periodic working groups in place for states/territories participating in various NGB-led initiatives. These provide a model to bring together stakeholders scaling a particular activity. Further, WRF has worked closely with IDA to provide technical assistance for program evaluation (e.g., designing evaluation plans, analyzing data) to states implementing local programs. Similar efforts, whether provided through a contracted source or using internal resources (e.g., DoD's Integrated Prevention Technical Assistance Centers[110]), can guide implementation and monitoring at scale.

3. Adaptation to New Contexts and Target Audiences

Scaling an activity does not necessarily require all elements of the activity become unalterable. During scale-up, adopting states/territories may find unexpected needs or contextual factors (e.g., characteristics of the new participants, geographic characteristics

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[107] Eliezer et al., *National Guard Suicide Prevention and Resilience Innovation Framework*.

[108] "Practical guidance for scaling up health service innovations," *World Health Organization*.

[109] "Practical guidance for scaling up health service innovations," *World Health Organization*.

[110] "DOD Technical Assistance Centers for Primary Prevention of Harmful Behaviors in the Military," accessed March 15, 2024, https://www.prevention.mil/Portals/130/Documents/DoD%20Primary%20Prevention%20TA%20Support_V1.pdf?ver=Ulx4KQJeokxFaoaeOGCZ5w%3D%3D.

of the adopting states/territories, broader health or socioeconomic trends in the adopting state/territory, and organizational characteristics) that challenge the activity's fit or effectiveness. Allowing for adaptation in such situations is necessary to successful scale-up.[111] Adaption should be approached with the same deliberateness applied in the planning phases of this framework, balancing the essential elements of an activity, which require greater fidelity (i.e., have less flexibility for adaptation),[112] and non-essential elements, which are appropriate to tailor to a local context (see discussion in Section 2.C.1.a). WRF has recommended that states use the Centers for Disease Control and Prevention (CDC's) *Select, Adapt, Evaluate* guide for planning adaptations.[113] Implementers should track detailed information about any adaptations and feed these into monitoring and evaluation, discussed in the next section. If too many elements require adaptation in any given adopting organization, the activity may be inappropriate to scale-up there.

In response to emerging needs, there may be interest in diversification, wherein new components are added to an existing activity, in addition to adaptation. However, IDA recommends that NGB and states/territories consider diversification with caution, especially early in the scale-up process. adding new interventions or major elements to an activity may muddy the waters—stressing the bandwidth of staff adopting a new activity and convoluting monitoring and evaluation efforts.[114] If NGB or states/territories identify a compelling need or opportunity for diversification, IDA recommends that NGB explore this in the form of smaller scale pilot efforts, and only in settings in which the new activity is sufficiently established. In this respect, the scale-up framework returns to the beginning of WRF's original prevention innovation process.

4. Continuous Monitoring and Evaluation

Monitoring and evaluation are critical to scaling up,[115] in particular because they inform continuous program improvement.[116] IDA recommends process evaluation of the

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[111] "Practical guidance for scaling up health service innovations," *World Health Organization*; Greenhalgh and Papoutsi, "Spreading and scaling up innovation and improvement."

[112] Durlak and DuPre, "Implementation matters: A review of research on the influence of implementation on program outcomes and the factors affecting implementation."

[113] "Select, ADAPT, Evaluate."

[114] "Practical guidance for scaling up health service innovations," *World Health Organization*.

[115] "Practical guidance for scaling up health service innovations," *World Health Organization*; Bulthuis et al., "Factors influencing the scale-up of public health interventions in low-and middle-income countries;" Yamey, "Scaling up global health interventions: a proposed framework for success."

[116] Vibecke Dixon and Michael Bamberger, "Incorporating process evaluation into impact evaluation: what, why and how," *International Initiative for Impact Evaluation* (3ie), March 2022, https://www.3ieimpact.org/evidence-hub/publications/working-papers/incorporating-process-evaluation-impact-evaluation-what.

scale-up effort itself. Such an evaluation may examine the extent to which planned steps of the scale-up process have been implemented, barriers that have been encountered and approaches used to overcome them, and implementation quality or fidelity to the key elements of the original model in adopting states/territories. To measure success, outcomes of scale-up might include the activity's uptake or coverage in new locations, reach or utilization among target populations, and the degree of institutionalization and buy-in from local stakeholders reached.[117] Key stakeholders—to include the originating organization and adopting organizations and NGB—should review findings frequently and use them to inform ongoing, collaborative refinement of the scale-up plan.

At the same time, NGB should continue to monitor whether larger-scale activities maintain quality implementation and achieve expected outcomes in adopting states/territories. Monitoring and evaluation should expand upon the evaluation plan used during small-scale implementation at the local level, aiming to allow NGB and states/territories to assess the activity's performance against a set of objectives, identify any weaknesses, and feed this information into learning and refinement efforts across states/territories.[118] By sharing information across locations, program managers can examine whether unexpected outcomes are associated with scale-up factors (e.g., questions of fidelity, uptake, or buy-in locally) and troubleshoot accordingly. Implementing an activity at scale furthermore provides an opportunity for impact evaluation, which would examine the activity's effects on distal (i.e., indirect) or longer-term behavioral outcomes at a broader population level. IDA recommends that NGB work with evaluation experts to inform the design of impact evaluations. IDA recommends disseminating the results of these activities among broad audiences to support continued engagement and buy-in for scale-up.

NGB and DoD are currently undertaking significant efforts to train and equip the Integrated Prevention Workforce to evaluate their state's prevention activities. The IDA team also provides technical assistance to build state program managers' capacity for program evaluation. However, IDA has noted challenges related to staff availability and turnover at the state-level and recommends ensuring that scale-up planning efforts ensure there are sufficient human resources to conduct necessary data collection and analysis activities.

The outputs of Step 4: Go to Scale - with Continuous Monitoring and Evaluation include documentation of implementation and adaptions; monitoring and evaluation data about the scale-up process and activity outcomes; and ongoing processes for coordinating

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[117] "Practical guidance for scaling up health service innovations," *World Health Organization.*

[118] Milat, Bauman, and Redman, "Narrative review of models and success factors for scaling up public health interventions."

evaluation activities, communicating progress, and using data to inform quality improvement across NG states/territories.

4. General Considerations and Key Recommendations

Based on IDA's research, we present the following overarching recommendations for applying the scale-up framework and for supporting the success of large-scale prevention activities.

- **Implement a process for evaluating newly-designed or adapted activities.** Scale-up frameworks commonly begin with testing innovations on a small-scale and/or with activities that have already been proven on a small scale.[119,120] They further recommend using this early testing to facilitate successful, more efficient scale-up later on (e.g., adapting and testing the activity in new geographic contexts, among new target populations). In early testing phases, implementers have greater opportunity and flexibility to learn from failure and try different approaches. IDA's 2021 report outlines one process NGB has used to implement and evaluate programs, and other similar processes exist.
- **Design for scale.** To the extent that a program is intended to fill a gap in the NGB portfolio and/or addresses widespread needs in the NG, it is appropriate to design the program to function on a larger scale (i.e., incorporate the scalable characteristics described in Chapter 3.A.3), even if initial testing occurs locally. This is consistent with scale-up frameworks approach of "beginning with the end in mind." Implementers should consult with SMEs and technical assistance resources (e.g., the DoD/CDC Integrated Prevention Technical Assistance Centers) when designing and adapting activities.
- **Define a clear purpose for scale-up.** Before pursuing widespread scale-up of any given activity, NGB should ensure there is a broader vision for large-scale activity implementation and/or the establishment of "national programs." This may include determining what gap centralization and/or institutionalization fill that cannot be filled by disseminating best practices among states/territories, particularly given the current requirements of the IPP.

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[119] "Practical guidance for scaling up health service innovations," *World Health Organization*.

[120] Evidence-based programs already tailored to military populations may be appropriate for more rapid scale-up. See IDA's Prevention Framework Resource Guide (available upon request) and other program repositories, e.g., the Clearinghouse for Military Family Readiness: "Clearinghouse for Military Family Readiness," https://www.continuum.militaryfamilies.psu.edu/search.

- **Consider tradeoffs between gradual and rapid expansion.** The complexity of an activity, the magnitude of its resource requirements, and the degree of buy-in and capacity in the involved states/territories and NGB will all influence the scale-up process. Adjusting the pace of scale-up, and resisting pressures to scale rapidly, may be important to achieving success. Deliberate planning, monitoring, and evaluation as part of a phased approach can facilitate efforts to troubleshoot and adapt throughout the scale-up process.
- **Clearly report and disseminate activities' current status and envisioned end-state.** This should include information about the activity itself, as well as its evaluation and current evidence of effectiveness. Disseminating information early, when an activity is still implementing at a smaller-scale, can help to both improve understanding of the activity and buy-in for the program among future adopting organizations. Additionally, NGB should establish clear terminology to describe the status of activities (e.g., pilot program, national program, program of record) and share updates on their progression to scale-up broadly (e.g., via WRF's website and existing newsletters).
- **Leverage extant knowledge management systems and communication processes.** Scale-up requires coordination among stakeholders at the state-level (e.g., TAGs, directorate leaders) and NGB-level (i.e., J1 divisions and WRF's branches), and knowledge management is essential to coordination. NGB should leverage existing knowledge management systems (e.g., Microsoft Teams, the Integrated Primary Prevention Tool (IPPT)) to centralize program materials and data collected during monitoring and evaluation. Additionally, interpersonal fora, such as NGAUS, AGAUS, and other extant working groups and communities of practice for various NG program areas (e.g., the IPP), can facilitate communication among NGB and stakeholders across states/territories.
- **Foster relationships among NG states/territories**. One of WRF's key aims for supporting state-level programs was to create opportunities for shared problem-solving and knowledge exchange across state lines. As part of a scale-up process, NGB should pursue opportunities to work *with* the decentralized structure of the NG by supporting quality improvement, adaptation, and dissemination of best practices. This may require allowing states/territories the flexibility to tailor activities to fit their local needs and contexts, even as scale-up efforts specify elements that require maintaining close fidelity. Points of friction between the plans of an originating state/territory, NGB, and adopting states/territories can generate useful information; trusting relationships can

harness this information to solve implementation challenges and/or develop new, innovative approaches to addressing prevention needs.[121]

- **Collaborate with external agencies to learn best practices for implementation and management.** NGB has invested significant resources into technical assistance and capacity-building for evaluation, but activities will be ineffective at scale without effective management, implementation, and oversight processes. NGB should consider forming an inter-agency working group with stakeholders from other agencies and academia to inform strategy regarding large-scale implementation of evidence-based programs. In IDA's research, we noted several external agencies and organizations (e.g., VHA, CDC, WHO), in addition to DoD (e.g., Office of People Analytics; U.S. Army), have done considerable work to understand best practices for implementation and scale-up. Their expertise can complement the extensive experience that exists within NGB and NG states/territories.
- **Plan for sustainability.** NGB and NG states/territories should consider sustainability before, and throughout, the scale-up process. Planning for sustainability includes many of the steps essential to the scale-up process, such as capacity-building (e.g., trainings, providing technical support), ongoing efforts to secure and *maintain* stakeholder buy-in (e.g., through continuous reporting of scale-up progress and program outcomes), and securing long-term resources required for implementation. Additionally, sustainability requires a dynamic approach; implementers may need to make adaptations to their activities to ensure they stay relevant to the target population and local context over time.

[121] Greenhalgh and Papoutsi, "Spreading and scaling up innovation and improvement."

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Appendix A.
Evidence Levels

Table A-1. Evidence Levels

Evidence Level	Qualifying Evidence
Very strong evidence	**Systematic reviews/meta-analyses**[a] of randomized control trials (RCTs) and experimental designs and/or consistent findings from multiple RCTs *RCTs/Experimental designs demonstrate that an activity caused an improvement in participants' outcomes (e.g., improved attitudes and behavior), compared to a randomly assigned control group.*
Strong evidence	**Randomized control trials**[b] and experimental designs and/or consistent findings from *multiple* quasi-experimental studies *RCTs/Experimental designs demonstrate that an activity caused an improvement in participants' outcomes, compared to a randomly assigned control group.* *Quasi-experimental designs demonstrate that an activity is associated with an improvement in participants' outcomes, compared to a non-randomly assigned comparison group*
Moderate evidence	**Quasi-experimental designs**[c] and/or consistent findings from *multiple* single-group designs with pre- and post-tests *Quasi-experimental designs demonstrate that an activity is associated with an improvement in participants' outcomes, compared to a non-randomly assigned comparison group* *Single-group designs demonstrate that the activity is associated with an improvement in participants' outcomes, often as measured before the intervention (pre-test) compared to after the intervention (post-test).*
Minimal evidence	**Single-group designs with pre- and post-tests**[d] and/or multiple single-group designs with post-tests only *Single-group designs with pre- and post-tests demonstrate that the activity is associated with an improvement in participants' outcomes, as measured before the intervention compared to after the intervention. A less rigorous single-group approach is to measure outcomes only after the intervention (post-test only)*

Evidence Level	Qualifying Evidence
Research informed but has not been evaluated	**Lacks direct empirical evidence** *The specific activity has not been evaluated. However, activities included here are often based on similar activities that are evidence-based and/or are informed by the research literature (i.e., relevant research provides a compelling rationale for why the program is likely to be effective). If implemented, activities in this category should always be evaluated to ensure they have their intended effect on sailors' outcomes.*

[a] A systematic review is a comprehensive literature review that reviews all studies falling under specified eligibility criteria. A meta-analysis uses statistics to combine and summarize the results of multiple studies to determine the overall magnitude of an effect (e.g., the size of the effect of a prevention program on key outcomes).

[b] A randomized control trial is a prospective scientific experiment that randomizes its participants to either a treatment group, which receives the product of interest (e.g., training, intervention), or a control group, which does not receive said product. It's commonly referred to as the gold standard study design to establish causality (i.e., the treatment caused an improvement in examined outcomes).

[c] A quasi-experimental design compares a treatment group that receives the product of interest to a comparison group. However, participants are not randomly assigned to group. Rather, the comparison group is selected to be closely matched to the treatment group. Causality cannot be established.

[d] Single-group designs provide the treatment (e.g., training, intervention) to only one group and compare outcomes as measured before the introduction of the treatment to outcomes measured after the introduction of the treatment. Causality cannot be established.

Appendix B.
Supplemental Tables

Table B-1. Example Scale-up Frameworks

Organization and Title	Overview of Framework Elements
Implementation Science A framework for scaling up health interventions: lessons from large-scale improvement initiatives in Africa Barker et al., Available from: https://implementationscience.biomedcentral.com/articles/10.1186/s13012-016-0374-x	• Sequence of activities to get a program to scale: set-up, develop the scalable unit, test, go to full-scale • Mechanisms required to facilitate adoption: leadership, communication, social networks, culture of urgency • Underlying factors required for scale-up: learning systems, data systems, infrastructure, human capacity, capability, sustainability
NSW Health Increasing the Scale of Population Health Interventions: A Guide New South Wales Ministry of Health Available from: https://www.health.nsw.gov.au/research/Publications/scalability-guide.pdf	• Scalability assessment (Is the program effective? Who will the program reach/will it be adopted by the target audience? Does the program satisfy a gap or priority area? Is it feasible?) • Developing a scaling up plan (What are the core elements of the program? What is the context in which the program will exist (situational/stakeholder analysis)? Will the program be scaled horizontally or vertically? Is there a plan for the monitoring and evaluation of the process and outcomes?) • Prepare for scaling up (Is stakeholder buy-in secured? Are there sufficient resources?) • Scale-up the intervention (Is there an action plan in place to coordinate the scale-up effort? Are organizations sufficiently equipped to handle scale-up? Are monitoring and evaluation systems tracking key indicators such as: effectiveness, reach, fidelity, fit, acceptability?)

Organization and Title	Overview of Framework Elements
Management Systems International Scaling Up Management Available from: https://www.msiworldwide.com/wp-content/uploads/2023/09/ScalingUp_toolkit_2021_v5_0-1.pdf	• Develop a scale-up plan (What is the mission and vision? How will you assess scalability? Is there a plan in place for scaling up the intervention?) • Establish the preconditions for scaling (How will you secure stakeholder buy-in? What parties are responsible for implementing the intervention?) • Manage the scaling process (Is there a sustainability plan in place to transfer ownership of the intervention to the adopting organization? Do changes need to be made to prepare the organization to manage the intervention/program on their own? Are there knowledge management systems in place to document progress, best practices, and lessons learned? Are there communication channels to share information about the program to relevant stakeholders?)
Veterans Health Administration Diffusion of Excellence Available from: https://www.innovation.va.gov/ecosystem/views/diffusion-excellence/assets/documents/diffusion-playbook-2023.pdf	Diffusion principles to consider when replicating and scaling innovations: • Define the vision and mission driving diffusion • Set clear goals for implementation and for maintaining fidelity of the innovation • Assemble the implementation team and other internal and external stakeholders • Develop a resourcing strategy to support diffusion of the innovation • Track key performance indicators • Create an implementation plan • Celebrate achievements

Organization and Title	Overview of Framework Elements
WHO and ExpandNet Scaling-up Framework Available from: https://expandnet.net/scaling-up-framework-and-principles/	• Plan actions to increase scalability of innovation (What are the core components of the innovation?) • Increase capacity of the user organization to implement scaling up (Is there a need/relative advantage for scale-up? Does the user have the capacity for large-scale implementation?) • Assess environment and planning actions to increase potential for scale-up success (What are the external factors that may influence scale-up?) • Increase capacity of resource team to support scaling up (Do the resource teams in the originating/adopting organizations have everything they need: sufficient capacity, support, etc.) • Making strategic choices to support vertical scaling up (institutionalization) (What changes, if any, must be made to institutionalize the innovation (e.g., policy, budget)? How will information be disseminated to leaders and other key stakeholders to increase buy-in? • Making strategic choices to support horizontal scaling up (expansion/replication) (How will information be disseminated to new areas? What adaptations, if any, need to be made in newly adopting sites? How will the implementation process and outcomes of the innovation be monitored and evaluated across different areas?) • Determining the role of diversification (If new needs are identified during the implementation process, will adding a new or additional component add value to the existing innovation?) • Planning actions to address spontaneous scaling up (Were the core components spontaneously scaled up? How have the process and outcomes of the innovation been evaluated?) • Finalizing the scale-up strategy and identifying next steps

Organization and Title	Overview of Framework Elements
Society for Public Health Education Scaling Up Implementation Support for Violence Prevention and Resilience Promotion in the Air Force Shearer et al., 2023 Available from: https://pubmed.ncbi.nlm.nih.gov/36448341/	• Necessary systems for scale-up: • Data systems (monitoring and evaluation, improvement) • Learning systems (goals and objectives, mission and vision) • Capacity building systems (training and support) • Sustainability systems (continued support)

Table B-2. Example Scalability Assessments

Source	Program Scalability Considerations
Scaling-up: From Vision to Large-Scale Change Management Systems International Available from: https://www.msiworldwide.com/wp-content/uploads/2023/09/ScalingUp_toolkit_2021_v5_0-1.pdf	• Clarity of the strategy for scaling the intervention • Credibility of the intervention (e.g., evidence of effectiveness or endorsement by trusted people) • Support for the intervention among stakeholders in adopting organizations • Extent to which the intervention improves upon or out-performs current practices • Simplicity and/or ease of adopting the intervention • Alignment of originating and adopting organizations and/or availability of intermediary organizations • Availability of funding and other resources to support the intervention
Increasing the Scale of Population Health Interventions: A Guide Mitat et al., Available from: https://www.health.nsw.gov.au/research/Publications/scalability-guide.pdf	• Evidence of effectiveness for the intervention, including in a diversity of settings and given adaptations to the intervention • Potential for adoption in large populations and/or settings • Alignment with strategic priorities of potential adopters • Feasibility and acceptability of implementation in adopting organizations

Source	Program Scalability Considerations
Intervention Scalability Assessment Tool Mitat et al., Available from: https://health-policy-systems.biomedcentral.com/articles/10.1186/s12961-019-0494-2	• Nature of the problem to be addressed and the appropriateness of the intervention to address it • Contextual influences on the intervention • Evidence of effectiveness for the intervention • Economic cost-benefit of the intervention • Feasibility of maintaining fidelity and/or making adaptations during scale-up • Potential reach and acceptability to the target population • Nature of the potential implementation setting and implementers • Infrastructure needed to support scale-up • Potential long-term sustainability of the intervention
WHO & ExpandNet *Beginning with the end in mind: planning pilot projects and other programmatic research for successful scaling up* Available from: https://www.who.int/publications/i/item/9789241502320	• Involvement of key stakeholders, including from potential adopters, in planning the innovation • Relevance of the innovation to the organizations' needs and structures • Agreement among key stakeholders on the purpose of scale-up • Alignment of the innovation with culture, values, and norms of adopting organizations • Simplicity of the innovation relative to the capacity of adopting organizations • Extent to which the innovation has been tested in a variety of settings • Feasibility of meeting resource requirements for large-scale implementation over time • Availability of documentation of the implementation process • Access to financial resources • Access to gatekeepers or champions for implementation • Availability of avenues to disseminate information about the innovation • Evidence of the innovation's feasibility and effectiveness

Appendix C.
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Appendix D.
Abbreviations

AGAUS	Adjutants General Association of the United States
ANG	Air National Guard
ARNG	Army National Guard
ATAG	Assistant Adjutant General
CDC	Centers for Disease Control and Prevention
CIPP	Comprehensive Integrated Prevention Plan
CNGBI	Chief National Guard Bureau Instruction
DoD	Department of Defense
IDA	Institute for Defense Analyses
IPP	Integrated Prevention Program
IPPT	Integrated Primary Prevention Tool
IPW	Integration Prevention Workforce
NG	National Guard
NGAUS	National Guard Association of the United States
NGB	National Guard Bureau
POM	Program Objective Memorandum
PPOA	Prevention Plan of Action
RCT	Randomized Control Trial
SAPR	Sexual Assault, Prevention and Response
SME	Subject Matter Expert
SOP	Standard Operating Procedures
TAG	The Adjutant General
VHA	Veterans Health Administration
WHO	World Health Organization
WRF	Warrior Resilience and Fitness

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Appendix E.
Illustrations

Figures

Tables

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REPORT DOCUMENTATION PAGE

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1. REPORT DATE	2. REPORT TYPE	3. DATES COVERED	
		START DATE	END DATE
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Considerations for the Scale-up of Prevention Programs in the National Guard

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14. ABSTRACT

This report provides a framework to guide the scale-up of National Guard (NG) state programs found to be effective and appropriate for broader implementation. This includes a sequence of activities required to prepare for and execute scale-up, a discussion of programmatic considerations for scaling programs, and broader recommendations for supporting the success of large-scale prevention activities. The report is informed by best practices identified through a literature review and consultations with NG Bureau and NG state/territory stakeholders.

15. SUBJECT TERMS

Program evaluation; Program implementation; Scale-up; Prevention; Harmful behavior

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