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Scaling up, Sustaining, and Enhancing School-Based Sexuality Education Programs in Resource Constrained and Conservative Contexts: Replicable Lessons from Positive-Deviant Countries

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ABSTRACT

Despite considerable efforts, progress in the implementation of sexuality education (SE) has been uneven. This study identified six "positive-deviant" low- and middle-income countries, i.e., countries that had scaled up, sustained and enhanced their SE programs when many others—in similar social, cultural and economic circumstances—were not able to do so. In other words, they were significantly and consistently more successful than the norm. Countries were shortlisted using a validated framework and were analyzed using three other validated frameworks on political priority setting, scaling up, and stakeholder engagement. The study found that India, Pakistan, Nigeria, Senegal, Mexico, and Uruguay had scaled up (either nationwide or in some states/provinces), sustained and enhanced their SE programs in very different contexts. In all six, SE was a political priority, the national or state/province level SE scale up effort had been carefully planned and managed, and a mix of methods were used to build support and/or to overcome resistance. The study points to what needs to be done better/more energetically/differently in research, program support-tool development, and policy and program support to change the status quo.

KEYWORDS

Scaling up sustaining enhancing school-based sexuality education, low-and-middle-income countries, resource-constrained contexts, conservative contexts, political prioritization and stakeholder engagement

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Introduction

The International Technical Guidance on Sexuality Education (ITGSE), whose 2018 update was led by UNESCO and involved six United Nations (UN) agencies, defines Comprehensive Sexuality Education (CSE) as:

> A curriculum-based process of teaching and learning about the cognitive, emotional, physical, and social aspects of sexuality. It aims to equip young people with knowledge, skills, attitudes and values that will empower them to realize their health, wellbeing and dignity; develop respectful social and sexual relationships; consider how their choices affect their own wellbeing and that of others and understand and ensure the protection of their rights throughout their lives (UNESCO et al., 2018).

It aims to improve knowledge, understanding, and to correct misconceptions by providing age-appropriate, scientifically accurate, and culturally relevant information. However, CSE is not just about teaching children and adolescents about sex, reproduction, and avoiding sexually transmitted infections and unwanted pregnancies. It also aims to promote self-awareness and norms that are equitable and respectful of others, by providing opportunities to discuss and reflect on thoughts and feelings, attitudes, and values. Additionally, it seeks to build social skills needed to make responsible choices and to carry them out, by providing structured opportunities to practice those skills (UNESCO et al., 2018).

Despite widespread recognition of the need for CSE; evidence of its effectiveness (Fonner et al., 2014; Goldfarb & Lieberman, 2021) and cost effectiveness (UNESCO, 2011); and the availability of program support tools for advocacy (IPPF, 2009), planning and implementation (WHO/EURO, BZgA, 2010, 2013), and monitoring and evaluation (UNFPA, 2015), children and adolescents around the world still do not get the information and education they need and have a right to. In 2015, taking stock of the progress made on CSE in the 20 years since the International Conference on Population and Development (ICPD), Haberland and Rogow noted that:

> "With a few exceptions, governments have a long way to go to fulfil the Cairo agenda." (Haberland & Rogow, 2015)

Their assessment echoed the sense of disappointment of the then UN Secretary General Ban Ki Moon, who said in his report of progress in the 20 years since the ICPD that:

> "Most adolescents and youth do not yet have access to comprehensive sexuality education, despite repeated intergovernmental agreements to provide it, support from the United Nations system, and considerable project-level experience in a wide range of countries and research showing its effectiveness." (United Nations, 2014)

A more recently published global stock-taking report reiterates the slow progress in implementation:

> "Data from 155 countries found (depicted) that 85% report that they have policies, laws or legal frameworks related to sexuality education. Despite this favorable policy

> background, there remains a significant gap between policy and implementation on the ground." (UNESCO et al., 2021)

There are several challenges that governments face while delivering CSE at scale, which contribute to this lack of progress (Gunasekara, 2017; Keogh et al., 2018; Vanwesenbeeck et al., 2015). Firstly, efforts to deliver CSE need to overcome the widely held misconceptions that it increases the likelihood of early sexual activity and that it is goes against religious teaching (i.e., that it teaches young people to do things that they are forbidden to i.e., to have sex before marriage), foreign (i.e., it aims to communicate viewpoints and values from other cultures), and corrupting (i.e. it is aimed at covertly introducing values on issues such as homosexuality and women's equality). Secondly, within the context of government-led efforts, CSE curricula are almost always non examinable and so are seen as unimportant and given limited time and attention, whether delivered as a stand-alone subject or one that is integrated with other subjects such as biology and social studies. Thirdly, in many places, shortages of capable teaching staff—due to inadequate training and support—as well as poor planning, implementation, and monitoring more generally means that even where CSE programs, exist, they are of poor quality. Finally, the small levels of government funding in most countries means that implementation is almost entirely reliant on external funders[1], leading to patchwork efforts with funding agencies often choosing to support international and indigenous NGOs to deliver their own curricula (rather than what has been approved for use by the government), using their own delivery strategies, with little coordination. These and other multi-level barriers to delivering CSE in the school context have been captured in a framework by Vanwesenbeeck et al., based on a decade of experience in delivering CSE (Vanwesenbeeck et al., 2015).

While many countries continue to struggle with these challenges, a small but growing number of low- and middle-income countries (LMICs) have successfully scaled up Sexuality Education[2] (SE) programs and sustained them over time. This paper seeks to identify the factors that enabled these countries to secure political support for scaling up school-based SE programs, and to translate this support into programs that were delivered at scale and sustained and enhanced over time, when so many others have not been able to do so. To do so, this paper aims to:

1. Identify LMICs that have scaled up and sustained SE programs either nationwide or covering one or more provinces/regions/states;
2. Identify factors that enabled these countries to place the nationwide scale-up of SE on their political agendas; and
3. Identify factors that enabled these countries to implement their policies and strategies, and to scale up, sustain and enhance their SE programs over time.

This study is not about the effectiveness of CSE in achieving one or more health outcomes. It is not about what is the most appropriate content to include or the most effective means of delivering the content in the school setting. These issues have been addressed elsewhere (Fonner et al., 2014, Goldfarb & Lieberman, 2021, UNESCO et al (a) 2018, UNESCO et al (c) 2021). It is an analytic description of the approved curricular content for school-based SE in six countries; the approaches used to deliver them as part of national or sub-national government-led programs with the support of partners; the means by which school-based sexuality education is being delivered in these countries at scale and in a sustained manner; and how support for this was built/opposition resisted. It responds to a call for research in these areas, identified by UNESCO with partners working in this area (UNESCO, 2020).

Methods

Theoretical underpinnings

The principal research method used in this study is a case study approach. Crowe et al (Crowe et al., 2011) define a case study as "*a research approach that is used to generate an in-depth multi-faceted understanding of a complex issue in its real-life context.*" Yin proposes that case studies can be used to explain, describe or explore events or phenomena in the everyday contexts in which they occur (Yin, 2009). Crowe et al note that case studies can "*help understand and explain causal links and pathways resulting from a new policy initiative or service development*" (Crowe et al., 2011).

The tone and content of much of the literature on Adolescent Sexual and Reproductive Health and Rights (ASRHR), and specifically on CSE, largely focuses on obstacles in initiating activities, and hurdles in making progress and in achieving results. Words such as gaps, weaknesses, limitations, and problems abound in the literature (Gunasekara, 2017; Keogh et al., 2018; Vanwesenbeeck et al., 2015). When there are positive reports, they tend to be in the context of small-scale and short-lived local projects. The overriding message is that there is very little being done/done well because of the enormous problems that block action (Gunasekara, 2017; Keogh et al., 2018; Vanwesenbeeck et al., 2015). Appreciative Inquiry (AI) is a deliberate approach to trying to identify what is good and worth emulating in every context, rather than what is bad and worth avoiding *ALONE*. Its roots lie in action research and social constructionism (Trajkovski et al., 2013). It shifts the focus from how obstacles have blocked progress to how opportunities have been used to make progress; from

how missteps and failures have crippled action to how problems have been identified and overcome. In other words, it reframes research from a negative (what is not working and why) mindset to a positive one (what is working and why).

Studying positive deviance is a focused approach to AI. The term "positive deviants" was first used to describe people—who in exactly the same circumstances and with the same resources—are significantly and consistently more successful than the norm in facing and overcoming challenges (Marsh et al., 2004). Since then, the concept has been used to study and to resolve a number of complex and entrenched problems (Pascale et al., 2010). Over the last 15 years positive deviance has become a field of study; researchers and evaluators have studied how individuals, communities and organizations have adopted uncommon behaviors to find better solutions to problems than their peers, despite not having more resources or expertise than they do (Marsh et al., 2004; Pascale et al., 2010).

Research methods and tools

Three steps were followed to answer the three specific research questions, which are in line with the case study approach set out by Crowe et al. (2011).

Step 1: Case study identification and selection

A two-step process was used. Firstly, low- and middle-income countries that had scaled up SE programs were identified. This was done by reviewing documents, identifying potential candidate case studies in meetings and conferences and consulting individuals involved in supporting the planning, implementation, monitoring and evaluation of SE programs in United Nations agencies, international and national nongovernment organizations, and academic institutions. Secondly, a modified set of the criteria developed by the Center for Global Development (Centre for Global Development, 2009) was developed and used to select these countries. The criteria included countries that had:

1. achieved nation-wide or substantial sub-national coverage;
2. been sustained for at least three years;
3. demonstrated some program results at the program outputs and individual outcome levels.

The Center for Global Development's list was developed by a working group that was linked to the Disease Control Priorities in Developing Countries Project of the Fogarty International Center at

the USA's National Institutes of Health. The working group's list was as follows:

1. interventions or programs were implemented on a national, regional or global scale;
2. interventions addressed a problem of public health significance, measured by burden of disease estimations;
3. interventions or programs demonstrated a clear and measurable impact on the health of a population;
4. interventions or programs functioned at scale for at least five consecutive years;
5. interventions or programs used a cost-effective approach, using a threshold of about USA Dollars 100 per disability adjusted life year saved.

Using this framework, the working group identified 20 successes in global health and drew out the factors that contributed to their success, for wider application.

The Center's list of criteria was adapted in three areas—firstly, by reducing the duration of programs from five to three years, because SE have been put in place recently in most places; secondly, by including programs that had demonstrated results at the programmatic output level (quality and coverage) and the individual outcome level (knowledge and understanding, attitudes and behaviors) and not at the individual impact level (health status) because data on results at the impact level cannot be attributed just to SE programs; and thirdly, cost was not included as a criterion for program selection, because there are few programs with available costing analysis.

Step 2: Case study analysis using a validated framework

Two analytic frameworks based on two checklists developed by Shiffman (2007) were used. Shiffman developed and applied—and thereby validated—two checklists to analyze whether maternal mortality reduction was in fact a political priority in Guatemala, Honduras, India, Indonesia, and Nigeria and the factors that helped and hindered this, in the period 2000-2007. Firstly, he developed an operational definition of political prioritization as follows:

1. national political leaders publicly and privately express sustained concern for the issue;
2. the government through an authoritative decision-making process enacts policies that offer widely embraced strategies to address the problem;
3. the government allocates resources and releases public budgets commensurate with the problem's scope.

Secondly, he identified nine factors that influenced the degree with which maternal mortality reduction appeared on national policy agendas as follows:

Category	Factors
Transnational influence	1. Norm promotion: Efforts by international agencies to establish a global norm concerning the unacceptability of maternal death.
	2. Resource provision: The offer of financial and technical resources by international agencies to address maternal mortality.
Domestic advocacy	3. Policy community coalition: The degree to which national safe motherhood promoters coalesced as a political force pushing the government to act.
	4. Political entrepreneurship: The presence of respected and capable national political champions willing to promote the cause.
	5. Credible indicators: The availability and strategic deployment of evidence to demonstrate the presence of a maternal mortality problem.
	6. Focusing events: The organization of forums to generate national attention for the cause.
	7. Clear policy alternatives: The availability of clear policy alternatives to demonstrate to political leaders that the problem is surmountable.
National political environment	8. Political transitions: Political changes, such as democratization, that positively or adversely affect prospects for safe motherhood promotion.
	9. Competing health priorities: Priority for other health causes that divert policymaker attention away from maternal mortality reduction.

These two checklists were used to guide the review of documents, and interviews with key informants. In each country we began with a search for peer-reviewed publications and organizational reports in the public arena. Alongside this, we prepared a list of individuals who were knowledgeable about this subject and reached out to them using interviews where possible. In addition to gathering information from these key informants about the initiative and their views on it, we also asked them to share/point to documents that would be useful to review. The iterative—information gathering and document identification—process was slightly different in each country studied.

Step 3: Case study analysis using two validated frameworks

To identify factors that enabled these countries to implement their policies and strategies, and to scale up, sustain and develop their sexuality education programs, the WHO-ExpandNet framework—developed by Simmons, Fajans and Ghiron—(WHO, 2010) for designing, carrying out and assessing the results of scale up health interventions, which contains two complementary sections, was one of two analytic frameworks used. The first section addresses planning. It guides users through four elements:

1. the environment i.e., the conditions and institutions, external to the scale up effort that substantially affect the prospects for scale up;
2. the innovation to be scaled up i.e., the interventions and/or practices to be scaled up;

3. the resource organization i.e., individuals and organizations that have been involved in the development and testing of the innovation and/or seek to promote its wider use; and
4. the user organization i.e., the institution that adopts and implements the innovation at scale.

The second section addresses strategic choices in scaling up. It guides users through considerations for:

1. vertical scale up i.e., the policy, political, legal, regulatory, budgetary, or other systems changes needed to institutionalize the innovation;
2. horizontal scale up i.e., the replication of the innovation in different geographic sites or its extension to larger or different population groups.

The third section is on managing scaling up. It guides users through the four strategic choices needed regarding:

1. organization and management i.e., charting out the management process, its pace and scope, whether it is to be centralized or decentralized, whether it is to be adaptive or fixed, and who would drive the process;
2. resource mobilization i.e., integrating scale up efforts into national and sub-national workplans and budgets, and of tapping into existing funding mechanisms;
3. monitoring and evaluation using methods such as routinely gathered statistics, special surveys and formative and intervention effectiveness research;
4. communication and advocacy i.e., defining appropriate approaches and relationships for advocacy on, introduction of, and information about the innovation to reach key audiences.

The two frameworks developed/used by Shiffman and the WHO-ExpandNet framework include a discussion on learning about and understanding the environment in which prioritization and scale up are to take place. They also discuss which stakeholders could help or hinder prospects for prioritization and scaling up, and how to engage them. However, given that opposition to SE influences its application, this analysis was extended with another validated framework i.e., stakeholder analysis (Schmeer, 1999).

Schmeer et al., set out a three-step process—firstly, identifying stakeholders and gathering information on their characteristics; secondly, categorizing stakeholders based on their positions and their potential influence, and

prioritizing whom to target; and thirdly, employing tailored strategies for each group targeted (Schmeer, 1999).

The first step in the process is identifying stakeholders and gathering information about their characteristics.

- the entity they belong to and the position they hold,
- their knowledge about the issue in question, and how they define it,
- their position on the issue, and specifically whether they support it, are neutral to it or oppose it,
- their vested interest in the issue, and the advantages and disadvantages that—in their perception—the issue could bring to themselves/their entities/the causes that are dear to them,
- their alliances i.e., the individuals and entities they are connected to,
- their resources i.e., the human, financial, technological, political and others, that they have/could mobilize,
- their potential leadership i.e., their willingness to initiating or leading actions for or against the issue,
- their potential power to affect the prospects for progress on the issue.

The second step is categorizing stakeholders based on their positions on the issue and their potential to influence progress on it:

- Allies are people who support the issue; some allies openly and actively support it, others less so.
- Neutral parties are people who neither oppose nor support the issue.
- Opponents are people who oppose the issue; some of them are more active and open about it and others are less so.

The third step is choosing from a menu of strategies tailored to each group. These strategies can be broad e.g., mobilize allies, educate neutral parties, and counter opponents. Following from that, to motivate people who lie between the spectrum of allies and neutral parties and persuade those who lie between neutral parties and opponents to reconsider their positions. They can also be nuanced, as outlined by Schmeer e.g., for neutral stakeholders with medium to high power and influence: focus on convincing them to support the policy and on increasing their power and influence where appropriate (Schmeer 1999).

Technical and ethical oversight

WHO's research ethics review committee (ERC) and the UNDP/UNFPA/UNICEF/WHO/World Bank—cosponsored Human Reproduction Program

Research Protocol Review Panel (HRP's RPRP) are guided by the International ethical guidelines for health-related research involving humans—4th edition (2016): https://cioms.ch/wp-content/uploads/2017/01/WEB-CIOMS-EthicalGuidelines.pdf. This paper draws from nine peer-reviewed publications documenting SE programmes in six countries. The data collection and analysis methods in each country involved a desk review of published and unpublished documents gathered by the writing team of each paper. This was complemented with discussions with a small number of key informants from the country to provide historical information on the wider context, to fill gaps, and to point to errors or lack of clarity in the way the case study was pieced together. In other words, in each country we put together a story drawing from available information and pulled out lessons from it; we did not carry out an assessment or an evaluation. Page 3 of the document titled: "Process and criteria for determining the need to submit activities to the ERC and/or exemption of protocols from further WHO ERC review": https://cdn.who.int/media/docs/default-source/documents/ethics/who-erc-submission-and-exemption-advice.pdf lists activities that do not need to be submitted to the ERC for review (page 3, section 3 titled: Submission criteria), including those that do not involve human subjects (3.2), those that constitute public health activities and not human participant research (3.3), and those that use information that is already available in published reports in the public domain (3.5). In line with this guidance, no formal submission was made. An email exchange with HRP's RPRP served to confirm that the documentation effort did not need to be submitted for review.

But the fact that a waiver was granted for our documentation work did not mean that we had a free hand in doing whatever we chose to do. In fact, the contrary is true. The peer-reviewed publications that have contributed to this synthesis paper have emanated from over a decade of work of WHO's Department of Sexual and Reproductive Health and Research, which also houses the HRP. Documentation and evaluation of outstanding initiatives on ASRHR has been an integral part of our workplan and budget, and given this is subject to ongoing technical and ethical oversight from within the Department, and periodic review from bodies that have been set up to technically review our work and to advise us—the HRP's Programme Coordinating Committee, the HRP's Scientific and Technical Advisory Committee and the HRP's Gender Advisory Panel Sexual and Reproductive Health and Research (SRH) (who.int) Further, every publication—whether an internal one e.g., a WHO guideline, or an external one e.g., a journal publication goes through a rigorous planning clearance and executive clearance on key technical and ethical issues.

Results

Are there LMICs that have scaled up and sustained SE education programs?

In the 25 years since the ICPD, a small but growing number of countries have moved "beyond boutique projects" and beyond "castles in the air programs." For example, a stock-taking review led by WHO and UNFPA (published in 2019) identified a number of countries with national-level government-led/multi-partner Adolescent Sexual and Reproductive Health and Rights (ASRHR) programs (Chandra-Mouli et al., 2019). This study outlines findings from six LMICs in Asia, Africa and Latin America that have in fact scaled up, sustained—and in some cases—enhanced their SE programs—India, Pakistan, Nigeria, Senegal, Mexico, and Uruguay.

Using the adapted version of the Center for Global Development's analytic framework described in methods section, Table 1 shows how these countries meet the criteria set for their inclusion in this study report:

- achieved nation-wide or substantial sub-national coverage,
- been sustained for at least three years,
- demonstrated some program results at the program outputs and individual outcome levels.

There are in fact countries operating in resource-constrained and conservative contexts that have scaled up and sustained SE (Uruguay is increasingly moving out of the LMIC category). Some of the initiatives had been scaled up nationwide (Mexico, Nigeria and Uruguay), whereas others had been scaled up to cover one or more states/provinces of their countries (India, Senegal and Pakistan). Some of them had been sustained for several decades and had evolved over time (Mexico, Uruguay and Senegal), whereas others were in place for a decade or less (India, Nigeria and Pakistan). Independent evaluations—with different areas of focus and varying levels of quality—have shown that they resulted in programmatic outputs at the national and subnational levels, and in addition have contributed to improvements in knowledge and understanding, in building positive attitudes, and in changing some behaviors in students.

What were the factors that enabled these countries to place the nationwide scale up of SE, on their national political agendas?

Using the analytic framework developed by Shiffman (2007) and the WHO-ExpandNet analytic framework (WHO, 2010), Table 2 examines the internal and external factors that contributed to placing the scale up of SE on national/subnational political agendas.

Table 1. Are there LMICs that have scaled up and sustained SE?

Name of country	How was the country identified?	Has the country achieved nation-wide or substantial sub-national coverage in SE?	Has the country's SE been sustained for at least three years?	Has the country's SE demonstrated some program results at the outputs and outcome levels?
India (Chandra-Mouli et al., 2018b; Plesons et al., 2020)	Information about the work was learned from USAID's contracting agencies working in India.	The initiative was scaled up throughout the State of Jharkhand, one of the 28 states of India.	The initiative's scale up began in 2006. It is still in place.	Yes. The initiative achieved program outputs at the state and lower administrative levels to the school level. It has also achieved outcomes (in terms of knowledge, attitudes, and some behaviors at the student level).
Pakistan (Chandra-Mouli et al., 2018c; Svanemyr et al., 2015)	Information about the work was gathered in workshops run by the International Planned Parenthood Federation and the International Women's Health Alliance.	Pakistan has four provinces and one union territory. The programs have been scaled up in two of Pakistan's provinces—Sindh and Baluchistan. Progress has been faster in the former for a number of reasons including great familiarity of government staff with this area of work, and greater proximity of Aahung.	The scale up effort began in 2004. It is has moved forward slowly sometimes, faster at others and has completely come to a halt at still other times. This continues to the day.	Yes. The initiatives have achieved program outputs at the provincial and lower levels. They have also achieved outcomes (in terms of knowledge, attitudes, and some behaviors at the student level).
Senegal (Chau et al., 2016)	Information about this work was learned from collaborators, principally from a French NGO Equipop.	Yes. Senegal is divided into 14 regions which are then divided into 45 departments. Scale up occurred in the context of two projects. Between 1990 and 2006, the Family Life Education (FLE) Program was scaled up to cover primary schools in all the country's regions, but coverage was uneven. Further, between 1994 and 2003, the FLE Program was scaled up to cover secondary schools in 5 regions. Beyond the scope of these projects, FLE clubs and classroom teaching on FLE were scaled up to cover 65% of schools nationwide, with support from an NGO.	Yes. As indicated in the previous column, scale up was sustained for around ten years.	Yes. The project contributed to improvements in knowledge and understanding. There were changes in health behaviors and health outcomes, but these changes cannot be attributed to the project alone.
Nigeria (Adebayo et al., 2022; Huaynoca et al., 2013; UNESCO, 2012; 2020)	Information about this work was widely available because it had been featured in two UNESCO publications.	Yes, the initiative was scaled up to cover all the country's 36 states.	The scale up effort began in 2003. It was energetically scaled up from 2003 to 2009. After that it has moved forward unevenly, with more progress in some states than in others and none in still others.	The initiative achieved program outputs at the national and state levels. It also achieved outcomes (in terms of knowledge, attitudes, and some behaviors) at the student level.

Mexico (Chandra-Mouli et al., 2018a; UNESCO, 2012; 2020)	Information about this work was first learned from a UNESCO publication in which was featured.	Yes, the initiative was scaled up nationwide.	Yes. The scale up effort has been sustained over several decades. After a failed attempt in the 1930s, it was first rolled out in the 1970s. It evolved into an approach grounded in human rights and acknowledging adolescent sexuality in the 1990s. In the first two decades of the 21st century it is framed within a broader sociological context.	The initiative achieved program outputs at the national and state levels. It also achieved outcomes (in terms of knowledge, attitudes and some behaviors) at the student level.
Uruguay (Lopez Gomez et al., 2021; UNESCO, 2012, 2020)	Information about this work was first learned from a UNESCO publication in which was featured.	Yes, the initiative was scaled up to cover all the country's 19 departments.	Yes. The scale up effort—of this iteration of SE—began in November 2006. It has continued—with ups and downs—to date.	The initiative achieved program outputs at the national and state levels. It also achieved outcomes (in terms of knowledge, attitudes, and some behaviors) at the student level.

Table 2. What were the factors that enabled these countries to place nationwide scale up of SE on their national political agendas?

Name of country	Was there transnational influence on the country's agenda?	Was there domestic advocacy?	Did the country's political environment and government bureaucracy facilitate scale up?
India	Yes. India is a signatory to international agreements on health and development of adolescents. It is likely that this as well as advocacy from international bodies including UN agencies influenced decision making in the country.	Yes. This was based on many studies demonstrating the need for SE and successful examples of delivering it in India in the NGO community. There are champions for SE within the government and the NGO community in the country. Clearly, domestic advocacy on the rationale for and benefits of SE contributed to placing it on national and state agendas.	Yes. India is committed to protecting the rights of adolescents, as articulated in a number of national policies—on education, HIV/AIDS, health and youth. These policies provided an enabling policy environment at the national level. At the Jharkhand State level, the formulation of a state level youth policy which called for empowering adolescents through education, provided a solid basis for the initiative. The establishment of Jharkhand as a new State and the readiness of its government to do things differently also contributed to their willingness to support SE.
Pakistan	Yes. Pakistan is a signatory to international agreements on health and development of adolescents. It is very likely that this as well as advocacy from international bodies including UN agencies contributed to the government's decision to support life-skills based education (LSBE) in the country.	Yes. This was based on data from needs assessment studies and in demonstrating that the delivery of culturally appropriate LSBE was feasible and could be effectively done. There are champions for SE and for attention to the health and development of adolescents and young people in the government. Further, a nationwide network of NGOs advocate for SE as part of promoting and safeguarding the SRH of adolescents. Their work has been central to what has been achieved in the country.	Yes. The country has a national policy that enables the provision of LSBE in schools and elsewhere in communities. This is set within broader policies to promote the health and development of adolescents and young people.
Senegal	Yes. The ICPD and the World Education Forum, (in 1994 and 2000 respectively), increased the attention of decision makers to the education sector's role in health promotion. Advocacy on HIV prevention also did so, especially because it was accompanied with technical and financial support.	Yes. A local NGO GEEP (Groupe pour l'Etude et l'Enseignement de la Population) which was charged by the Ministry of Education to execute a pilot project on school education about population growth, played a key role in advocating for action. It did so along with the active NGO community working on adolescent/young people's health and sexual and reproductive health in the country.	Yes. The country's political and governmental commitment to addressing population growth challenges in the 1990s provided the basis for the first generation of school education programs on this subject. Following this the country's prompt response to HIV prevention in the community at large and in adolescents and young people was another facilitating factor. Finally, stimulated by the ICPD, national laws on sexual and reproductive health and on ASRHR which provided the basis for moving beyond a focus on HIV education alone.

Nigeria	Yes. There was advocacy for many years from private foundations such as Ford and McArthur, to address the problems of too-early pregnancy and pregnancy-related mortality and morbidity in adolescents. The rise in HIV infections in young people was a key focus of advocacy of UN agencies and the Global Fund for AIDS, Tuberculosis and Malaria.	Yes. A national coalition on SE was set up in 1995. Members of the coalition worked with various stakeholders to ensure the formulation of policies to integrate SE in the school curriculum, to develop a national SE curriculum and to scale up the delivery of the curriculum nationwide.	Yes. Having said that, no political party or leader was individually responsible for enabling the provision of SE. Nor was any particular political party or leader opposed to it. Instead, the national coalition worked through the government's mechanisms and processes to secure the policy commitments.
Mexico	Not really. SE has been on the national agenda for many years now. International and regional agreements and meetings have likely contributed to reinforcing this, but SE was not placed on the national agenda because of international advocacy.	Not really. There is a large and active HIV and sexual and reproductive health civil society movement in the country. There is also a movement devoted to the health of young people. Having said this, there is also strong and longstanding government support for this.	Not really. As noted earlier strong governmental support for SE helped sustain it over several year, and despite resistance from some political parties and from some segments of civil society.
Uruguay	Yes. Uruguay is a signatory to international agreements on health and development of adolescents. It is likely that this as well as advocacy from international bodies including UN agencies likely influenced decision making in the country.	Yes. Civil society organizations worked with the Ministry of Education and the Ministry of Health to build social consensus on the need for SE and to build political support for it.	Yes, The National Act 15 of December 2005 provided the legislative basis for this. This was further strengthened by the General Education Law 018437 of 2009.

Direct transnational influence was instrumental in generating political and governmental support for scale up of SE in Nigeria and Senegal, and to a slightly lesser extent in India. Pakistan and Uruguay. Although less direct, transnational influence contributed to building support at the national level in all six countries. Such advocacy was especially effective when it was combined with offers of technical and financial support by external players including UN agencies and funders. Even if these influences are not obvious, government participation in international conferences e.g., on education, being signatories to international agreements e.g., the ICPD and the Millennium Declaration, and to international human rights instruments e.g., the Convention on the Rights of the Child appear to have influenced national decision making on scaling up SE (as noted by key informants in all six countries studied).

In all the countries studied apart from Mexico—in which scale up of SE has been happening for several decades now and government commitment to keeping it there is strong—domestic advocacy by an NGO coalition and by civil society bodies working on gender and rights, was critical to placing the scale up of SE on the national agenda. In all countries including Mexico such domestic advocacy was critical to keeping it there. In some countries such as Nigeria and Senegal, such advocacy was in conjunction with high profile external advocacy. In others—such as in India, Pakistan and Uruguay—domestic advocacy may well have been informed by the global discourse but external advocacy tended to be low key/in the background.

Transnational or domestic advocacy used a combination of arguments to make the case for action, including studies showing the poor state of ASRHR (e.g., the relatively poor state of ASRHR in Jharkhand State compared with the Indian average), studies showing alarming new developments in ASRHR (e.g., rising levels of HIV infection in young people Nigeria), and that the delivery of SE could be carried out in a culturally sensitive manner without creating social tension (e.g., in Nigeria and Pakistan). As scale up progressed, other hooks were used to strengthen the case for SE e.g., the case reports of sexual abuse of minors in Pakistan, and evidence from evaluations that middle- and upper-primary students needed and would be more receptive to SE in India than secondary students.

In some countries e.g., in India and Uruguay, a political window of opportunity created an opening for advocacy to place SE on the national agenda. In others, a national legal/policy framework was already in place. This is true in Mexico, Pakistan, and Senegal. In Jharkhand State, India, the creation of a new state whose leaders were keen to demonstrate their work in promoting adolescent health, provided a window of opportunity. Beyond that, a combination of external influence and domestic advocacy

contributed to the formulation of new laws and policies, that further strengthened the legal and policy environment backing SE.

What are the factors that enabled these countries to implement their policies, and to scale up, sustain and enhance their SE programs?

Using the analytic framework developed by WHO-ExpandNet (WHO, 2010) and the framework developed by Schmeer (Schmeer, 1999) described in methods section, Table 3 examines the following aspects of scaling up by programs in India, Pakistan, Nigeria, Senegal, Mexico and Uruguay—planning, strategic choices made, management, and how each country program built support for the delivery of SE and responded to opposition to it.

This section examines how the scale up was planned and managed in the six countries studied. In relation to planning, the following elements in the framework were examined—the environment, the innovation, the resource organization and the user organization. In relation to managing scale up, the following elements were examined—management and organization, resources, monitoring and evaluation, and communication. Finally, special attention was paid to what was done to build support and overcome resistance to SE. As can be expected there are both areas of commonality and specificity across the countries.

Planning scale up

The environment. In all six countries, the scale up of SE in schools was part of national policy[3]. Political leaders and government officials were made aware of the need for SE through data on the SRH problems faced by adolescents. They were also made aware of NGO-led efforts which had demonstrated both the feasibility and utility of delivering SE through their projects. This was done by internal and/or external champions. In all six countries, there were varying levels of both organized support and opposition to SE in different civil society groups. Similarly, there were segments of the public which were for and against it, and a large segment with no expressed opinion or engagement in this area.

The innovation. As discussed above, the innovation consists of both the curriculum and its delivery in the school setting. Firstly, in terms of curricular content, Table 3 contains brief comments on how well the content of each country's curriculum relates to the eight concepts of the ITGSE: relationships; values, rights, culture and sexuality; understanding gender, violence and staying safe; skills for health and wellbeing; the human body and development; sexuality and sexual behavior; and sexual and reproductive health. Overall, all these concepts are touched on, but consistently some

Table 3. What strategic choices were made by the six countries to implement their policies, and to scale up, sustain and enhance their SE programs?

Analytic framework	Case Study: Jharkhand State, India
Environment	Helping factors: • The availability of an enabling national and state level policies • Determination of the State Government to show that it could effectively promote adolescent health • Recognition by the State Government of the serious SRH problems facing adolescents, especially in the context of HIV. • Awareness that NGOs such as the Center for Catalyzing Change (C3) were able to deliver SE without triggering negative public reactions. Hindering factors: • Deep-seated discomfort about discussing sexuality and reproduction • Ever-present risk of vigorous public backlash
Resource organization	Initially, the State Government's School-Based HIV Programme was led by the Department of Health and subsequently, the State Government's Department of Education which led the programme in conjunction with the Department of Health. C3 also was a key member of this group
User Organization	All Government-run secondary and senior secondary schools in Jharkhand State
Innovation	Content of the curriculum: The curriculum was named Udaan, which means "taking to flight" (e.g., like a bird) in Hindi It was developed for students in classes 9 and 11. It addressed all eight concepts set out in the International Technical Guidance on Sexuality Education (ITGSE)[a] but did so in a limited manner in relation to concepts (ii), (vii) and (viii). In its later stage of adaptation, it was tailored to address local needs e.g., migration and human trafficking specially for students in classes 6, 7 and 8. The themes for students in these classes matched the themes for those in classes 9th and 11th but the content was made simpler and adapted to suit the needs of younger adolescents. For example, it contained content on mental health, safe and unsafe touch, migration, human trafficking, environment and hygiene, and basic financial literacy but both the presentation and content were adapted for students in upper primary/lower secondary school. Delivery of the curriculum: Initially, students in classes 9 and 11 were targeted. Later this was extended to students in classes 6, 7 and 8. Udaan was part of the overall school curriculum and was mandatory to all. It was delivered by designated teachers who were trained and supported by master trainers from the Education Department. External resource persons – adults or peers – were not involved. It was delivered as a stand-alone subject, once a week for a study period. The State Government formally issued an implementation calendar by grade, mandating the classroom delivery of teaching sessions once a week between June and December of each year. The subject was not examinable. Classroom teaching was complemented by student led Udaan clubs with clearly defined activities. Udaan fairs were organized from time to time to engage students' families and other community members.
Strategic choices in scaling up	Vertical integration: • School-based SE was already part of national and state-level policies. Horizontal integration: • A public-private partnership involving C3 on the one hand, and the State Government's HIV Programme and subsequently the Department of Education
Management and organization	It was led from the state level. A State level Core Committee under the chairpersonship of the Secretary of Education of the State Government was formed to review progress and to decide on policy decisions and future directions. A State level nodal officer from the State Education Services was designated to coordinate and provide administrative support to the program in the state. District Education Officers were designated as focal points for coordination and reporting for the districts that they were stationed in. A staff member in each of the State's District Education Offices was designated as an Udaan Mitra. He/she was trained to assist the District Education Officers in coordinating and implementing Udaan in their districts.

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Table 3. Continued.

	Teachers were selected from within the education system based on the following criteria - they needed to be interested in SE, be willing to teach it, be able to discuss sensitive matters, have good communication skills and to engage freely with students.
	They were provided no incentives.
	They were trained in the content and the delivery of SE. Initially this was done in the context of in- service training. Later, pre-service training was introduced in a leading teachers' training college in Ranchi, the State Capital. However, some in-service training and retraining continued.
	Teachers received ongoing monitoring and mentoring support from C3.
	When teachers moved away, their potential replacements were nominated based on the above criteria. These nominees were trained, supported by existing trained teachers, and monitored and mentored by C3 during their periodic visits.
	Teaching and learning materials were developed for teachers who were responsible for teaching SE, and for students (initially for those in secondary school and then later for those in middle school). In addition, the following materials were developed - training materials for master trainers and nodal teachers, a program managers' handbook, a flip chart to aid teachers in classroom discussions, an implementation calendar for heads of schools and teachers, and a guidebook and games for Udaan clubs. Finally, graded digital materials were developed for students in classes 6-8.
	All these materials were developed by C3 and approved by the State Government. A key focus in teacher training is the creation of a safe learning environment.
	Initially, there were no active linkages to the government-led adolescent friendly health services. This was initiated later but the linkages are not very strong.
Resources	Activities were integrated into the Education Departments' budgets at the state, district, and block levels.
	Costs relating to teacher training/retraining and support were also included in these budgets. During the initial years of the implementation of Udaan, the Jharkhand Government supported the cost of printing Udaan training materials for master trainers and nodal teachers.
	C3 secured multi-year support from an external funding agency for its support to the Government of Jharkhand
Monitoring and evaluation	Monitoring:
	To facilitate monitoring in all secondary schools in the State - including the Katurba Gandhi Balika Vidyalayas (KGBV) which are managed by the Jharkhand Education Project Council (a body within the Education Department that has been tasked to lead the universal education campaign in the state) an Interactive Voice Response System (IVRS) was developed, approved, and rolled out. Subsequently a mobile application was developed to monitor supervision by head teachers, delivery of SE sessions, and participation by students. (The C Sharp Programming Project based application was rolled out in 2014-15, and from 2015-16 onwards, the IVRS based monitoring covered all Udaan schools including KGBVs).
	C3 was involved in wider efforts to review the quality of education in schools, including the review of the monthly reports of school health masters, and district education officers.
	Evaluation:
	Through different phases of the evolution of Udaan five independent evaluations of processes, outputs and outcomes were carried out. They assessed the learnings and perceptions of students; perceptions of district education officers, school principals and teachers on Udaan's operations. They did not assess teacher competency and performance; this was done during monitoring visits by C3.
	The learning from these evaluations shaped the program.
Communication and advocacy	Effective and ongoing communication with stakeholders from the state to the local levels was a key priority of C3 from the start. Time and effort were devoted to reaching different stakeholders with accurate and up to date information on why SE was needed, what Udaan was aiming to, how it was doing it, and what it was achieving.
Building support	Enormous effort went into securing high-level government buy in. To illustrate this, the program was launched by the then Chief Minister of the State
	C3 worked hard to build and sustain government ownership and support, at state and district levels. A State-level Core Committee was formed to provide

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Table 3. Continued.

	direction to the program under the chairmanship of the Secretary, Human Resource Development. Other members included the Secretary, Department of Health and Family Welfare, the Project Director, Jharkhand State AIDS Control Society, the Director, Secondary Education, the Director, Jharkhand Council of Education Research and Training and the Jharkhand Academic Council. Data on Udaan's operations and its effects were used to consolidate this support and to secure approach to extend its scope to primary and middle schools. Teachers were selected and trained to be the public face of Udaan, in addition to their classroom teaching work. Fairs were used to inform and engage the public and build support for Udaan. Data on the achievements of Udaan, including the fact that it was being replicated in other states, helped create a sense of pride about it in the State.
Overcoming resistance	There were attacks in the press periodically about the State Government diverting limited resources to 'promote sex among children.' State Government officials worked with C3 to anticipate and prepare for such attacks. Through learning by doing, a modus operandi was prepared and put in place when needed to calm the waters, assuage concern and to build bridges: i. Joint press statements were issues by senior officials to explain that Udaan was a State Government-led program, with its full commitment. ii. Targeted outreach was carried out with editors and reporters of local newspapers (with whom relationships had been built). They put out stories on the positive outcomes of Udaan and that it was being replicated in other states.
Promoting and safeguarding sustainability	C3 worked to integrate SE into the State's systems and structures including teaching by government- paid teachers; oversight, monitoring and reporting by designated persons in schools and in District Education Offices; pre-service training of teachers in existing institutions; and integration of content on Udaan in the State Government's textbooks. What this meant is that Udaan was government owned, led and mandated. It was not an add on or optional program. C3 also contributed to wider efforts to improve the quality of education, and to place improving the quality of SE delivery as a means of improving the quality of teaching more widely. While a dedicated C3-run unit in the State's capital Ranchi provided mentoring support, it was not responsible for executing Udaan.
Analytic framework	Case study 2: Sindh and Baluchistan Provinces, Pakistan
Environment	There were a number of 'helping factors' in the environment for scaling up SE in Pakistan. • Firstly, an explicit national policy that enabled the provision of SE to children and adolescents within and outside the school setting was in place i.e., the National Education Policy of 2009. A particular focus of this was on preventing child abuse and sexual violence. • Secondly, there was clear recognition among decision-makers in the national government that adolescents and young people faced several SRH problems, and that lack of knowledge and understanding about how to keep themselves healthy was a key contributor to this. • Thirdly, a loose alliance of NGOs was committed to using the enabling policy to provide SE to children and adolescents, something that the government was not doing. Further, through a variety of smaller scale pilot projects, these NGOs had demonstrated the feasibility and acceptability of delivering SE in a way that was acceptable to the families and communities they worked with. On the other hand, there were strong 'hindering factors' too. • Firstly, the conservative social and religious context deterred any public discussion about sexuality and reproduction, let alone educating children and young people about it. Politicians and government officials were aware of these restrictive norms, and most were reluctant to confront them. • Secondly, there were some segments of the public, as well as civil society groups and religious institutions, which were so strongly opposed to SE that they were even prepared to use verbal or physical violence to stop it.
Resource organization	The scale up effort described here was led Aahung, working both on its own and collectively with other NGOs. It was supported by provincial departments of health, but the former played the role of lead resource organizations.

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Table 3. Continued.

User organization	Schools – private and public, religious, and secular, single-sex and mixed-sex schools – delivered SE. Their administrative and teaching staff all played roles in delivering it.
Innovation	Content of the curriculum: Curriculum development was largely led by NGOs involved with the promotion of child and adolescent health and wellbeing, often working independently from each other. In Sindh Province, the development of one SE curriculum was led by Aahung, building on experiences with smaller scale pilot projects and extensive consultation with many stakeholders including the Provincial Government. In terms of breadth, the Aahung curricula did not cover all eight concepts that are part of the ITGSE. For example, it did not include detailed content on sexual diversity or sexual behavior. However, these and other sensitive topics were dealt with in less direct ways e.g., less direct ways (such as diversity of choices) and condom negotiation (through discussion of HIV/STIs). The curriculum is intended for secondary-school students. Delivery of the curriculum: The curriculum was delivered as a mandatory subject. It was delivered as a stand-alone subject. Some schools chose to run the entire curriculum at one time whereas others did so as a separate subject. It was delivered by teachers who are trained to deliver the content using participatory methods. External resource persons – adults or peers – were not involved. The curriculum was not examinable. Extracurricular activities were used to complement classroom teaching of the curriculum.
Strategic choices in scaling up	Vertical integration: • The provision of school-based SE was firmly grounded in national government policy from the start. Horizontal integration: • Given the decentralized context in which provincial governments have the mandate to operationalize national policies and strategies, Aahung and other NGOs collaborated with provincial authorities to scale up SE, starting in Sindh and then in Baluchistan. To facilitate this collaboration, partnerships were forged with the authorities to advocate for the establishment of a SE curriculum, to develop and agree on the curriculum, and then to introduce it in schools in a phased manner.
Management and organization	As mentioned above, the scale-up effort described here was driven by Aahung, Zindagi Trust and a loose network of NGOs. Once the Sindh and later the Baluchistan provincial governments came on board, they jointly led the effort. In each school, principals were first engaged and oriented. Following that, and with the support of the principals, some teachers were identified, trained, supported, and charged with the responsibility of delivering SE. Teaching materials developed by Aahung and approved by the provincial governments were used by all teachers. These materials included lessons plans and corresponding materials for students. The materials were not digitalized. Teaching preparedness was built though in-service training. Pre-service training is currently not available. Capacity and motivation were further built with efforts to mentor and retain trained teachers. Given that teachers were trained to facilitate open communication in a safe environment and given that the school management and parents were on board, the risk of negative reactions in school or at home was perceived to be less. Finally, SRH related commodities and services were not provided in school settings. No formal linkages to community-based health and social services were built.
Resources	The various activities of Aahung and other NGOs to scale up SE (i.e., advocacy, engagement, consensus building, curricula development, capacity building, and teaching) were resourced by external funding bodies. However, once memoranda of understanding were established with the relevant government authorities, and the roll-out of SE began in schools, the provincial educational departments covered the costs of training school principals and teachers, and of printing and distributing materials.

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Monitoring and evaluation	Prior to the institutionalization of the curricula by provincial governments, Aahung carried out a number of evaluations of the processes, outputs, and outcomes of the SE program. This learning- by-doing shaped the scale-up operations. The evaluations assessed the learnings and the perceptions of the students, as well as the knowledge, understanding and perceptions of teachers. The performance of teachers (i.e., quality of teaching) was not assessed in formal evaluations but was assessed during monitoring and supervision visits, and ameliorative actions were taken.
Communication and advocacy	Aahung devoted time and effort to define who to reach and how to reach them with clear information on who they were, what they were doing, and why. It then worked extensively with these partners to build a shared understanding and trust regarding SE in the communities and institutions it worked with. Although Aahung collaborated with provincial level authorities, a huge focus of its work was at the local level, where it sought to build bottom-up support for its work, as described below.
Building support	Firstly, before engaging with stakeholders, Aahung carried out a power mapping exercise to identify influential community members and important stakeholder groups. It then organized a series of communication-focused activities, such as learning forums and in-person meetings, to gain support and to understand issues perceived as important as well as sensitivities at different levels, from local religious groups and school associations up to the Department of Education. Having consulted with these communities, Aahung recognized it would be culturally inappropriate to directly address sensitive topics like pre-marital sexual activity by talking about contraception. Instead, the organization decided to target related problems – including child marriage and gender-based violence – identified as problems by local actors themselves. In this way, it simultaneously serves these community interests while adhering to internationally established recommendations by focusing on common intermediate outcomes, such as comfort with one's own body, communication skills, confidence, and decision-making abilities. Secondly, building on their understanding of these societal and cultural barriers to SE, Aahung and other members of the NGO network adapted WHO's guidelines for LSBE to the local context in Pakistan[b]. Thirdly, realizing the importance of engaging those in their immediate circles of influence to build understanding and support for SE, Aahung supported extensive efforts to sensitize and counsel parents and the wider community by school administrators and teachers. Also, to increase transparency, Aahung held public theater performances and discussion sessions to demystify LSBE and win people over to its way of working.
Overcoming /resistance	In 2011 and 2012, conservative media outlets linked to a religious political party, Jamat-ul-Islami, criticized SE being provided in the country for 'breaking the moral fabric of Pakistan' and corrupting the minds of pupils. Following parliamentary discussions, the NGOs' work was stopped in Punjab, and they were advised to get the content vetted by religious scholars in Sindh. Different NGOs responded in different ways to this backlash. Rutgers World Population Foundation (whose work on SE in Pakistan has since ended), for example, reached out to a small group of respected and well-known journalists from print, radio and television to help facilitate a dialogue with mass media personnel in the affected provinces. This stimulated public discussion of how LSBE could address the vulnerabilities of adolescents. Additionally, school visits demonstrated to media personnel how the program increased the confidence and performance of students and teachers. They saw for themselves that the accusations about the organization (e.g., that it was teaching 11- year-old children how to have sex) were false. The participating journalists went on to produce a number of stories about what they learned. The organization also arranged for progressive religious scholars to review the content of its LBSE curriculum and supplement its content with messages from the Koran. This work fed into a series of meetings with parliamentarians, policy makers, religious scholars and media personnel that culminated in permission to resume LSBE in schools in Sindh.

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Table 3. Continued.

	Aahung, on the other hand, decided against including religious content in the curriculum. Instead, it used a human rights-based approach to bring legitimacy to its work, demonstrating that different approaches to SE can be successful in the same context. Its curriculum was reviewed by stakeholders including teachers, students, school administrators, parents, and representatives of the Department of Education. While key themes were retained from international guidelines, case studies, images, and activities were adapted to the Pakistani context. Likewise, sensitive content (i.e., condom negotiation; child, early, and forced marriage) was carefully situated within a health outcome framework. In addition to its curriculum review, Aahung took a more systematic approach to school integration, grounded in sensitization of school administrators and parents prior to teacher training and classroom delivery, in order to further guarantee support. Aahung and other NGOs in Pakistan recognize that it is not enough to run effective SE programs if they are not accepted by the communities they are set in and wanted by the society-at-large. Both organizations know they must be ready to respond to occasional backlash (often coordinated) from media, religious institutions, and other groups. Yet they also value the media as an ally in preventing and responding to this same backlash.
Promoting and safeguarding sustainability	In Pakistan, SE provision is part of national policy. There is also an approved national curriculum. However, given that a decentralized system is now in place, this on its own cannot guarantee action at the provincial level. Through the efforts of Aahung and other NGOs, provincial governments have steadily got involved in supporting the delivery of SE in schools by NGOs and other civil society bodies, and some have even integrated SE within their formal education systems. The biggest risk to sustainability is in opposition from those who genuinely believe it is harmful to children and adolescents, as well as those determined to use this to stir up discontent and discord. That is just what Aahung, and their partners are tirelessly working to address.
Analytic framework	Case study: Nigeria
Environment	Firstly, the political establishment as well as the government bureaucracy were well aware of rising levels of HIV infection in young people in the country (as well as of other SRH problems affecting them), and of the pressing need for SE to be delivered as part of a package of interventions to promote SRH and reduce the levels of HIV infection among young people. Secondly, they were well aware that social norms and cultural traditions did not permit open discussion on sexuality and reproduction. Thirdly, they were aware that on the one hand, there were growing calls from civil society organizations for SE to be provided to young people, and on the other hand that a segment of the public was strongly opposed to it. Fourthly, what tipped the balanced was well-organized community-based advocacy. In the process of developing guidelines on CSE, Action Health Incorporated (AHI), an NGO, successfully mobilized a formidable array of advocates made up of actors within and outside the government: including government officials, staff from NGOs, religious leaders, secular leaders, and media persons, who continued to advocate for the inclusion of SE in the school curriculum. Finally, in 1999, after years of strategic and determined advocacy, the Federal Ministry of Education (FME) with support and collaboration of AHI secured the approval of the National Council of Education for SE to be included in the national school curriculum as the education sector's response to HIV prevention among young people, and a decision to scale up the Family Life and HIV Education (FLHE) curriculum nationwide was agreed upon.
Resource organization	The scale up effort was led at the national level by the FME and at the state level by state ministries of education. A number of NGOs, depending on their geographic areas of focus and funding sources, worked with the government at national and state levels to technically guide the scale up of the FLHE curriculum implementation.
User organization	Three different categories of organizations were engaged to serve different, but complementary functions, in the scale up effort: (i) youth and reproductive health NGOs to provide in-service training for teachers on the FLHE curriculum and ongoing support to schools (ii) secondary schools to conduct classroom teaching and extracurricular activities, and (iii) National Commission for Colleges of Education (NCCE) and teacher-training institutes i.e., Colleges of Education awarding the National Certificate of Education) to conduct student-teacher training.

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Innovation	Content of the curriculum: The program was named FLHE. The development of the FLHE curriculum was led by the FME, Nigerian Educational Research and Development Council (NERDC), Universal Basic Education and AHI. The curriculum was developed through an open and consultative process involving a number of stakeholders. It aimed to "foster the acquisition of factual information, the formation of positive, attitudes, beliefs and values, as well as the development of skills to cope with the biological, psychological, socio-cultural and spiritual aspects of human living". In terms of breadth, it is set in line with the key concepts of the Guidelines for CSE in Nigeria. Given this, it addressed many of the topics in concepts (i to iii, v, vi, viii) set out in the ITGSE but did not do so in relation to concepts (iv) and (vii). Delivery of the curriculum: The FLHE curriculum is part of the overall school curriculum. It covered upper primary, junior secondary and senior secondary pupils. It was infused into the curriculum of existing specific carrier subjects by NERDC; it was not delivered as a stand-alone subject. It was taught by teachers responsible for teaching subjects such as science and social studies, who were trained and supported for this. States like Lagos and Sokoto contextualized their efforts such that in Lagos State, FLHE was delivered through Social Science and Integrated Science by specially designated "carrier" subject teachers. External resource persons—adults or peers—were not involved. There was no system to assure uniformity in the carrier subjects used and the timetables across the country. It was not examinable. Extracurricular activities were used to complement classroom teaching of the curriculum.
Strategic choices in scaling up	Vertical integration: The decision to scale up the FLHE was implied in the 1999 policy decision (referred to above), but its execution only took effect after the FLHE Curriculum was approved for use in 2002. The FME had no budgetary provision to cover the scale up. It worked with stakeholders within and outside the country to raise funds for this. Horizontal integration: The FME decided to scale up the FLHE curriculum nationwide at the same time. It charged state ministries to roll out the program in their states simultaneously, giving them the liberty to make some modifications that were needed to conform to local social and cultural norms, especially those informed by religion. State governments were also encouraged - but not mandated/required to—establish working relationships with NGOs and other civil society bodies to contribute to the effort.
Management and organization	The scale up model used was national in scope—all 36 states and the Federal Capital Territory were covered. Scale up occurred in all states simultaneously; a phased approach was not used. This is both because of a sense of urgency given the increasing levels of HIV infection and the availability of external funding for a fixed time period. The oversight of the scale up effort was decentralized; it was led by each state ministry of education. The model was adaptive to the social and cultural context but preserved the core elements of the FLHE curriculum. State and district education officers were responsible for coordination, monitoring and reporting. The agreed upon national curriculum was used by all states. These materials included lessons plans and corresponding materials for students. In some states, the name of the curriculum and its contents were tailored to take into account local sensitivities, especially religious ones. For example, Sokoto State adapted SE/FLHE as School Health Education Programme. The teaching-learning materials were not digitalized. Teachers were not permitted to opt in or out. However, many who were uncomfortable with the issues of sexuality avoided engagement with learners. No additional incentives were provided to teachers, beyond their statutory emoluments.

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Table 3. Continued.

	There was no structured replacement strategy and newly recruited teachers had to learn and support themselves.
	Initially, teaching preparedness was built though in-service training. Subsequently, pre-service preparedness was built into teacher-training institutions. The NCCE in collaboration with the FME, AHI and other partners developed a pre-service. training course on Family Life and Emerging Health Issues in 2009, for colleges of education in the country. Periodic retraining was done to continue to build capacity and to sustain momentum.
	Guidelines for Implementing FLHE Curriculum were published by the FME in 2008. They contain guidance on classroom delivery including teaching methodologies, classroom dynamics and facilitation techniques, as well as on protecting the safety and dignity of students.
	Health-related commodities and services were not provided in school settings. No formal linkages to community-based health and social services were built. However, some NGOs which were supporting extra-curricular activities also provided complementary SRH services at their centers.
Resources	Support for early efforts came from diverse sources such as the Ford and MacArthur Foundations that funded NGOs to engage with scale up in specific states - Kano, Cross River, Enugu, Plateau, Niger, Lagos, Osun, Oyo; as well as to support specific national government-level efforts such as the development of guidelines for implementing the National FLHE Curriculum, and to the NCCE, which played a critical role in the scale up effort. UNFPA supported work in some states such as Sokoto, Rivers, Gombe. The United Kingdom's Department for International Development supported ARFH, an NGO, to expand to Gombe, Bauchi, Borno Yobe and Kebbi.
	Funds for the national government-led scale up effort came primarily from external sources, initially the World Bank and later the Global Fund for AIDS Tuberculosis and Malaria. This was supplemented with in-kind contributions from the FME and its state counterparts.
	Activities relating to the organization and delivery of SE were integrated into existing Education Department budgets at the federal, state, and local levels. SE was delivered in existing classrooms by existing teachers. Pre-service training was integrated into the work plans and budgets of teacher-training institutions.
Monitoring and evaluation	Monitoring:
	As the FLHE curriculum was rolled out, the FME set up a Management Information System and used it to monitor progress in implementation in this large and diverse country. Data on coverage in terms of geographic area, schools, teachers, and pupils were gathered, and reported.
	Evaluations:
	Evaluations were carried out in some—but not all—states. The choice of the states was pragmatic and opportunistic. These evaluations were carried out by indigenous researchers or external research bodies. Most of the evaluations assessed the learnings and the perceptions of the students. Some assessed the perceptions of management/administrative staff and teaching staff. Very few assessed teacher competencies and performance (i.e., quality of teaching)[c]. Evaluation findings and implementation experiences in Lagos were used to develop practical guidance for other states to use to strengthen their program efforts.
Communication and advocacy	An active and coordinated communication effort at the national level by an array of advocates including government officials and NGOs contributed to building support for the formulation of a policy to scale up the FLHE curriculum. Once that was secured, the focus of the communication moved to the state level. In this diverse country, communication and advocacy efforts were tailored to the social and cultural (and notably the religious) context. But the model used was the same i.e., the engagement of individuals, institutions, formal associations, and informal networks to provide accurate and up to date information on why SE was needed, what the FLHE was aiming to do and why, how it was doing it, and as importantly to debunk myths and misconceptions. This is further described below.

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Table 3. Continued.

Building support	A number of efforts contributed to building support for SE scale up in Nigeria. At the national level, well planned and targeted communication was used to build support for the adoption of the national curriculum and for the formulation and adoption of the national scale up policy. Communication focused on the need—and especially the threat - posed by HIV, and the evidence of the effectiveness of SE. Further, the national curriculum was developed using an open and consultative process, to build support and shared ownership. At the state level, advisory and advocacy committees – involving traditional and religious leaders, school administrators and representatives of teachers' unions and parents' associations - were put in place. These committees built on existing associations and networks. They worked to generate support for the delivery of the curriculum and to stand up to resistance. Given that there were frequent changes of the people in positions of authority, rapport- and support-building needed to be done and redone. Finally, at both national and state levels, data from authoritative studies were shared to build support for continuing this effort.
Overcoming resistance	As noted above, the curriculum was developed through a consultative process. As part of this process, compromises on its content were made to address the concerns of influential stakeholders. As with all compromises, there were people on both sides of the debate who were not satisfied with what was agreed upon - champions of SE believed that the compromises went too far, and those on the other side of the debate still believed that some the content was still not acceptable. Given this there was continued opposition from some quarters. The FME and its NGO partners proactively engaged with the media to prevent them from supporting/amplifying misinformation and opposition to the curriculum. And when there was misinformation, this was challenged, though not always and not always effectively.
Promoting and safeguarding sustainability	Government bodies at federal, state, and local levels were charged with the delivery of the curriculum, its monitoring and reporting. However, given that the scale up strategy largely relied on external funding, the level of effort declined when external funding was phased out, and continued to a greater extent in some parts of the country than in others.
Analytic framework	Case study: Senegal
Environment	Helping factors: To begin with, Senegal's political declaration on population growth led the foundation for the national school based FLE program. Later, the country's national HIV strategy expanded the scope of this and added a sense of urgency to it. Following the ICFP, the government's increasing prioritization of young people's SRH—with a law in 2005 and a national strategy in 2009 - helped shift the focus on population growth and HIV prevention, to promoting the SRH of adolescents, more broadly. Hindering factors: Some community leaders and members, and religious organizations with conservative views were opposed to FLE.
Resource organization	For a project aimed at delivering SE at the primary school level: A multidisciplinary technical team and a national coordination team in the Ministry of Health, supported by UNFPA, played the role of resource organization. For the secondary school level: GEEP (supported by UNFPA) played that role. A steering committee and a project management committee were put in place. The above two groups developed the teaching-learning materials and supported teacher training and capacity building. The Ministry of Health's Department of Reproductive Health and Child Survival provided technical know-how. International NGOs and UN agencies (UNESCO, UNFPA and the World Bank) also supported this work technically.
User Organization	The National Ministry of Education's Department of Elementary Education, the Department of Middle and Secondary School Education, and the General Inspectorate of Education provided oversight by monitoring the delivery of FLE, assessing teachers' needs, and taking actions to improve the quality of teaching. The National Ministry of Education and its subnational counterparts worked with GEEP to carry out teacher training.

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Table 3. Continued.

	Primary, middle, and secondary school teachers were responsible for the delivery of FLE.
	GEEP was responsible for coordinating the FLE clubs.
Innovation	Content of the curriculum:
	The program was named FLE/Population Education. Later the term "Reproductive Health Education" was also used.
	The curriculum was developed for students at the primary and secondary school levels.
	It addressed all eight concepts set out in the ITGSE but did so in limited depth in relation to concepts (ii), (vii) and (viii) for primary school and in more depth for secondary school.
	Delivery of the curriculum:
	Both the projects had the following three components—classroom teaching in line with curricula, teacher training and supervision/support, and community sensitization. For secondary school students, it also included extra-curricular clubs.
	The SE program targeted students in primary and secondary school. It was mandatory to all students.
	However, it was not examinable.
	It was delivered by generalist and carrier subject teachers.
	In the primary school system, SE content was integrated into the following 'carrier subjects'—History, Geography, French, Science and Moral Studies.
	In the secondary school system, SE content was integrated into Geography, Family Economics, and Earth and Health Sciences.
	Teachers of carrier subjects were encouraged to collaborate when planning and assessing curricular integration.
	External resource persons were not involved in classroom teaching.
	The periodicity of teaching was decided upon by the school/teachers.
Strategic choices in scaling up	Vertical integration:
	School-based SE was grounded in the following education policies: The National Educational Policy (2005) and the National Basic Education Curriculum (2005-10). It was also grounded in national health policies: National ASRH Strategy (2005) and the National HIV/AIDS Strategy (2002-06 and 2007-09).
	Horizontal integration:
	Scale up occurred in a phased manner. In relation to primary school students, from 1990 to 2006 some schools in all the provinces of the country and most schools in two priority provinces were covered. In relation to secondary school students, the phased scale up occurred between 1994 and 2004. After this, the project which led the scale up effort came to an end and the material was included in the National Basic Education Curriculum.
Management and organization	The scale up effort was led from the national level by project management bodies that were part of/working in close association with the Ministry of Education.
	A decision was made to focus particular efforts on provinces with high levels of HIV and adolescent pregnancy and childbearing.
	It was led from the state level.
	Teachers were selected from within the education system. Given that teachers of 'carrier subjects' were charged with the delivery of SE, this was one a key criterion for the choice of teachers. They were provided no incentives.
	They were trained in the content and the delivery of SE in regional and district-level pedagogic units. Teachers received ongoing monitoring and mentoring support from these units.
	When the teachers moved away e.g., due to transfer or retirement, they were replaced by other teachers responsible for teaching the subjects SE was embedded in.
	Core curricula for primary and secondary school students and teaching and learning materials were developed with the full involvement of the Ministry of Education.
	Teacher training addressed the creation of a safe learning environment.
	There were no active linkages to the government-led adolescent friendly health services.

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Table 3. Continued.

Resources	The implementation and scale up of FLE was supported by funding from the Senegalese Government (the Ministries of Education and Health), USAID, UN agencies (UNFPA, UNESCO, UNICEF, and the World Bank) and international NGOs. Funding was adequate for piloting and initial scale up. However, resource constraints limited country-wide horizontal scale up, and—more importantly—sustained scale up.
Monitoring and evaluation	Monitoring and evaluation mechanisms were set up to assess progress and scale up of FLE programs, including mid-term and external evaluations. Where possible, they were included in routine monitoring and evaluation frameworks. A number of independent studies produced additional data relevant to the scale up process. However, none of these studies assessed the direct effect of the FLE program on adolescent health outcomes at the population level.
Communication and advocacy	The advocacy strategy for FLE scale up involved actions aimed at different entities within the national Ministry of Education as well as community-level advocacy. The Ministry of Education's Division of School Health and the GEEP played a central role in advocating for FLE's inclusion in the national curriculum. Their intimate knowledge of the education sector was an important facilitating factor for advocacy efforts. Community-level advocacy and sensitization efforts with school principals, head teachers, parents and community leaders were also key components of the advocacy and dissemination strategy. These activities helped achieve buy-in from reticent stakeholders, including parents, teachers, and community leaders.
Building support	In the curriculum development stage, Christian and Muslim religious leaders were consulted, and their support secured. In line with their request, the term Reproductive Health Education was agreed upon to mitigate resistance. Community sensitization was a key component of the overall effort. It aimed to inform and engage key stakeholders—school principals, teachers, parents, and other community members including religious leaders. In primary schools, open days were organized for parents and other community members. A sensitization guide and a documentary film were prepared for use in these sessions and in community outreach. In secondary schools, school-based, teacher-supervised and peer educator-led extra-curricular clubs were set up both to engage and educate students as well as community members.
Overcoming resistance	There was no systematic strategy to respond to resistance. However, the community engagement and sensitization process contributed to preventing resistance from building.
Promoting and safeguarding sustainability	The delivery of SE was integrated into the National Government's systems and structures including teaching by government-paid teachers; oversight, monitoring and reporting by designated officials at the district level; and training of trainee teachers in government-run institutions. What this meant is that the SE program was government owned, led and mandated. It was not an add on or optional program.
Analytic framework	Case Study: Mexico
Environment	School-based SE-related programs have been in place in the country since the 1970s. This was done mainly through the inclusion of "units" with SE-related content in the textbooks that every student receives freely from the government every year. Different administrations extended political and governmental support in different ways. For example, Mexico's Government endorsed and then promoted the commitments made through the ICFP's Plan of Action. There were further actions to continue and strengthen this commitment as evidenced by Mexico hosting a regional meeting in 2008 which brought together 30 ministers of health and 26 ministers of education (or their representatives) and led to a regional declaration committing to the provision of SE in their respective countries called the *Ministerial Declaration Preventing through Education*.[d]

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Table 3. Continued.

	This Declaration strengthened the Government's commitment to continue including comprehensive content within the curriculum and in official textbooks even in the face of opposition to SE by some parent- and church-associated groups, which have been active ever since the first attempts to implement SE around the 1930s. Over the years, this resistance had grown to involve an alliance of church groups and civil society bodies that appear to be better organized and resourced. Alongside this, a well-organized NGO movement has generated public support for SE. Government commitment finally crystalized with the explicit inclusion of CSE within the framework of inclusive education, in the National Political Constitution in 2019.[e]
Resource organization	Federal and state level ministries guided and supported the delivery of SE content at the corresponding levels. In many states they relied on alliances with NGOs with expertise in SE, for this task.
User Organization	As noted above, the Federal and state ministries of education mandated the provision of SE contents in primary and secondary schools, meaning that the available human and physical resources were deployed for this. Classroom teaching of SE was done by teachers as part of their routine teaching work. Some (but not all) teacher– training colleges included SE as an optional subject. The National Pedagogical University has a specialty course on SE and plans are underway to transform it into a degree course. In-service teacher training included several optional SE courses, in many cases supported by specialized NGOs.
Innovation	Content of the curriculum: Mexico has 31 states and one capital territory which has its own government and constitution but does not have the status of a state. The Federal Government develops the SE curriculum and the content of textbooks for primary and secondary school students. State governments had (and continue to have) the option to develop a CSE course as an additional subject for secondary education at their discretion, using the following criteria: rights based, gender-sensitive and scientifically grounded. Delivery of the curriculum: The SE units are delivered as part of the Natural Sciences (Biology), Social Sciences and Ethics and Civic Education subjects. Therefore, they are part of the curriculum delivered to all primary and secondary school students. This is a national curriculum and students cannot opt out at the request of their parents. However, there have been legislative efforts to institute the so called, "parental pin" which mandates educational authorities to inform parents when "morality, sexuality and values" topics are dealt with in the classroom. This parental pin was approved by the Congress of the State of Aguascalientes in May 2020. However intensive work by human rights and SRHR organizations was successful in having a federal judge block it. The subjects that include SE in primary school are delivered by the same teacher who oversees all the other subjects for a given grade. In secondary school, the SE content is delivered by Biology or Ethics and Civic Education teachers
Strategic choices in scaling up	Vertical integration: The provision of school-based SE was firmly grounded in long-standing government policy. Horizontal integration: Managing the delivery of SE in the country's 31 states and one capital territory had been devolved to that level in the past and systems were in place (or were meant to be in place) to do this. Partnerships with NGOs and NGO networks were active in some states but not in others, and not maintained consistently.
Management and organization	The scale up effort was decentralized in that the content of the curricula and the approach to its delivery were set at the national level, but execution of the strategy was left to the state level. State education department officers were responsible for coordination, monitoring and reporting. This model ensured that the strategy was national in scope, and all the states and the single federal territory were covered simultaneously. However, it does not ensure that the CSE content is properly delivered by teachers. The curricular content, as well as the teaching and learning materials were developed at the national level. However, there was a provision for adapting to the social and cultural context, such that the states could add an additional content to the curriculum to address local realities, but the rest of the curriculum was unchanged.

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	Curricular units, textbook, supporting materials for teachers are all digitalized and available in the Education Ministry webpage.[f]
	All teachers have to include SE contents in their respective subjects; however, they can place more or less emphasis on the SE unit. They also may omit certain topics and emphasize others, such as abstinence, according to their own principles. Teacher cannot formally opt out, but they may simply stress what they think is important and leave out important topics. Teachers do not receive incentives for including SE-related content within the curricular subjects
	Given that this was a longstanding program, and that the SE content was included in the standard syllabus, teaching preparedness was built through pre-service programs that were in place.
	However, in-service retaining programs were carried out from time to time, basically on an optional basis.
	Health-related commodities and services were not provided in school settings. However, the Health Ministry developed several "friendly" services directed specifically to adolescents that provided not only information but also offered condoms and other contraceptives. At local state level, linkages to community-based health and social services were built.
Resources	Activities relating to the organization and delivery of SE were integrated into workplans and budgets of the education department at the state, district and local levels and covered by their respective governments. SE was delivered in existing classrooms by existing teachers. Costs relating to teacher training/retraining were also covered by state governments. Pre-service training, when available, was integrated into the work plans and budgets of teacher-training institutions. However, it must be clear, that these resources were part of the regular funds available with the Health Ministry funds, no specific or earmarked funds were allocated.
	The NGOs and the NGO networks that support the delivery of SE in schools secured funding from time to time from governmental programs which allowed NGOs, to enter bids or competitions for training teachers or delivering CSE to out of school populations, and from indigenous and external foundations. However, the current government has attacked CSOs and implemented measures against them, e.g., restricting the allocation of government funds to them.
Monitoring and evaluation	The Federal Government has different management information systems used to monitor progress in implementation of various programs in this large and diverse country. Regarding the Preventing through Education Declaration. IPPF set up a system to monitor the results of the Declaration in all Latin American countries. The evaluation done after the Declaration's expiration (2015) shows that Mexico had achieved 68% of its intended objectives Galvanized by the Mexico City Declaration, NGOs and NGOs gathered and reported on data on the coverage of SE in terms of geographic area, schools, teachers, and pupils. Evaluations were carried out in some—but not all—states. The choice of the states was pragmatic and opportunistic. These evaluations were carried out by indigenous researchers or external research bodies. Most of the evaluations assessed the learnings and the perceptions of the students. Some assessed the perceptions of management/administrative staff and teaching staff. Very few assessed teacher competencies and performance (i.e., quality of teaching).[g]
Communication and advocacy	Effective and ongoing communication with different stakeholders from the national to the local levels was a key priority. Time and effort were devoted to reach different stakeholders with accurate and up to date information on the content of the national curriculum and its relevance to the realities in Mexico, as well as to address myths and misconceptions. This is further described below.
Building support	Mexico's SE has a strong basis of support. Firstly, since the 1970s, Mexico has had a national government-led SE program grounded in supportive national- and state-level policies. Secondly, there is widespread recognition among decision makers that adolescents and young people face serious SRH problems such as early pregnancy and childbearing and the health and social problems that emanate from this, and that effective action, including school-based SE is needed. Data-based advocacy has contributed to this. Thirdly, in addition to government support, there is strong support from a segment of the civil society and from national networks of NGOs for meeting the SRH needs of adolescents and young people including SE.[h]

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Overcoming resistance	For several decades now, the national government has fully supported the provision of SE, despite opposition from influential segments of the civil society. The explicit acknowledgement of adolescents as sexual beings in the 1990s curriculum and the explicit attention to adolescent pregnancy prevention and the rights of LGBTQI + (Lesbian, Gay, Bisexual, Transexual, Queer, Intersex) people in the first two decades of the 21st century has met with the expansion of the range of groups who oppose different elements of the SE e.g., the role of the school in SE, contraception, abortion, and same-sex relationships/marriage. These groups appear to the better resourced and organized than in the past. The National Government has stood up to this resistance, which include public petitions and court cases challenging the Government's actions. Alliances of NGOs are working together in a more coordinated manner to stand up to them and to support the government where needed.
Promoting and safeguarding sustainability	In Mexico, SE provision has been part of national law and policy for several decades. In 1993 for example, the reform to the General Law of Education included explicit clauses on SE. This formal and legal support has been more explicit in the newly promulgated General Law of Education (2019). *CSE* has also been fully integrated into strategies such as the National Strategy for Adolescent Pregnancy Prevention (2015). There is published evidence of the effectiveness of CSE for this strategy.[i] The challenge to its sustainability is in opposing social movements that could contribute to changing the law and to passing court directives blocking action. In relation to this, the Supreme Court of Justice Ruling in 2016 that children and people have a right to CSE offers a powerful defense and protection to the continuation of SE.[j]
Analytic framework	Case Study: Uruguay
Environment	In Uruguay, left and center-left political parties have led successive governments since 2005. Under their stewardship, the country has seen steady economic growth accompanied by reductions in inequalities. Further, reforms have been carried out in many areas including health and social development. The country's approach to health is grounded in a strong regulatory framework that recognizes the importance of human rights, equality—including gender equality - and diversity; and that SRH and wellbeing are human rights. The National Administration of Public Education (ANEP, for its initials in Spanish) is an "autonomous entity", a legal institution provided for in the Republic's Constitution. The country's educational policies are designed by the ANEP which is responsible for compulsory education in the country. The ANEP is divided into four subsystems, which are responsible for the different levels of education: the Council of Initial and Primary Education (CEIP), the Council of Secondary Education (CES), the Council of Technical-Professional Training (CFTP) and the Council of Training in Education (CFE). The CES and the CFTP are responsible for basic and higher secondary education and the CFE for teacher training at all levels. ANEP's Central Board of Directors (CODICEN) Resolution of 2005, the General Education Law of 2008 and the Sexual and Reproductive Health Law of 2008, laid the foundation for national policies and strategies that guarantee SE from the preschool level to the university level. The 2005 CODICEN resolution created a national intersectoral commission to develop an SE project for national public education. The General Education Law of 2008, No. 18437, defined SE, and education in rights and health as cross cutting themes relevant and necessary at all levels of education and the Sexual and Reproductive Health Law of 2008, No. 18426, asserted that the state was responsible for guaranteeing the necessary conditions for the exercise of sexual and reproductive rights of the country's population. Also in 2008, the SE commission was tasked with defining, articulating, and coordinating strategic lines, as well as the administration of resources and actions of SE in school systems at a national level, and the Sexuality Education Programme (PES) was created. This included a coordination and a "Sex Education Commission", composed of a representative of each of the subsystems of the ANEP. Civil society bodies including NGOs have complemented the efforts of the government by working to build social consensus on the need for SE and political support for it.
Resource organization	Federal and state level bodies and ministries guided and oversaw the delivery of SE at the corresponding levels. NGOs have played a supportive role.

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User Organization	The government body that regulates compulsory education nationally (ANEP) mandated the provision of SE from the preschool to the university level in public education, meaning that the available human and physical resources were deployed for this, with significant differences between the different subsystems.
	Classroom teaching of SE was done by subject teachers or 'Reference SE Teachers' as part of their routine teaching work. Teachers underwent basic training on SE as part of their pre-service training, although most new teachers understand that 30 hours of training is not enough to later face the concrete realities of delivering SE.
Innovation	Content of the curriculum:
	The SE curriculum and teaching and learning materials for all the levels were developed at the central level through a consultative process led by the ANEP, with participation from the ministries of education and culture, health, and social development, as well as scientific societies, national NGOs and UNFPA.
	In terms of breath, the curriculum addresses all the eight concepts that are part of the ITGSE.
	Although the Programme sets out some general lines, each subsystem of the ANEP had high levels of autonomy for integrating in its curricula, to develop implementation mechanisms, and to develop teaching and learning materials. The PES had played a central role in the country's SE effort at the outset. By 2020, its role was limited to the training of teachers (especially virtually), the administration of a "Reference and Documentation Centers" in the capital and each of the countrýs department capital cities, and (These centers were intended to bring teaching materials to teachers of all levels and to PES coordinators who carried out local projects.) placing issues of relevance on the CODICENś agenda.
	Despite the progressive weakening of the PES as a central organ, the commitment of each of the subsystems to SE, beyond what the PES promoted, contributed to the progress of SE in the country in the absence of a strong central program.
	Regarding the production of materials and general guidelines, the PES produced three products: a) a book titled: "Sex Education: its incorporation into the Educational System" which is a compendium of detailed guidance materials. This document was seen as the general guidelines of the plan (b) a study report titled "Self-care in children and adolescents. Discourses and daily practices on sexuality and rights in the national education system"; c) teaching materials aimed at families titled: "It's Good to Talk. Sex Education for Families" and: "It is part of life. Support material on sex education and disability to share in the family".
	Beyond this, the "Documentation and Reference Centers" incorporated newly published materials at the international level, - including the two versions of the UNESCO guide (International Technical Guidelines on Sexuality Education)— directly in the work of their respective subsystems.
	Delivery of the curriculum:
	After the formulation and design phase (2005-2007), the implementation of SE within the ANEP subsystems began in 2008.
	Each one of the sub-systems chose a different approach, based on its own analysis of advantages and disadvantages of different approaches.
	The official curriculum includes the subject through the preschool (3 to 5 years) and primary school (6 to 11 years) years. The fact that these contents have been included in the curriculum, in different subject areas, and with a clear obligation for all schools in the country to execute is an advantage in that it obliges the system to incorporate the contents of SE during the eight years of schooling. However, the treatment of the subject depends on the will of teachers since inspections do not check whether the contents of the SE are in fact delivered and how well they are.

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	In relation to secondary school, SE has not been integrated as well because of the complexity of the system. At the level of the formal curriculum, the contents of some subjects have been modified to include SE (mainly in the third year of the basic cycle). Further, a system of reference SE teachers has been set up; these teachers have a certain number of teaching hours assigned to each institution.
	However, there is no specification of the number of hours for students to be taught the subject, nor is there a strategy for integrating the curriculum as in the primary school level. Although it is expected that throughout the basic cycle, students will have at least four sessions per year with the reference SE teacher, this depends on the number of hours available to reference SE teachers and the willingness of other teachers to give up their curricular hours so that the spaces for SE teaching become available. The advantage of this system is that, in places where the reference SE teachers fulfill their functions well, they become an adult of reference for adolescents, who could be reached out to beyond the classroom. The disadvantage with this system is that it does not guarantee training in SE to all adolescents who go through secondary school (since as explained above, whether the reference SE teachers do in fact teach, is not guaranteed).
	Regarding secondary training with a professional technical orientation (rather than an academic one), a system of optional workshops has been put in place. These workshops were conducted during school hours. In this way, SE issues were addressed in all basic cycles, like any other compulsory subject, during the first two years. The advantage of this approach is that teaching time for SE was clearly allocated. The disadvantage lies in the way teaching hours are chosen. Further, SE teachers do not always have specific training in the subject. But overall, this system appeared to have worked well.
	In terms of teacher training, progress has been made in institutionalizing SE. A mandatory 30-hour seminar on SE has been incorporated in the core training of all teachers in the system, and another optional seminar on the subject in the fourth year of their course. Likewise, this subsystem has incorporated a mandatory human rights seminar that discusses addressing SE with a gender and human rights perspective. Alongside this, refresher courses on SE have been held in various departments in the country. Further, discussions have been initiated with public and private universities to put in place, a postgraduate degree for teachers on the subject.
Strategic choices in scaling up	Vertical Scale Up:
	The provision of school-based SE was firmly grounded in government policy.
	Horizontal Scale Up:
	A decision was made to scale up SE provision nationally. Responsibility for managing the delivery of SE in the country's 19 departments was devolved to that level. Partnerships with NGOs were encouraged, but the government clearly played the lead role.
Management and organization	The scale up model was national in scope—all the country's departments were covered simultaneously. The scale up effort was decentralized in that the content of the curricula and the approach to its delivery were set at the national level, by the ANEP subsystem, but execution of the strategy was left to the department level. Officials at that level were responsible for coordination, monitoring and reporting.
	The curricular content, as well as the teaching and learning materials were developed at the national level.
	Although SE has been incorporated within all of ANEP's subsystems, each has played different roles in delivering SE.
	The Reference and Documentation Centers in the countrý s departments allow free face-to-face and remote access to information on SE. The publication of the databases on the Internet, with a lot of full-text material, has allowed a large part of the bibliographic collection of the Reference and Documentation Center to reach the entire country.
	Pre-service training programs were put in place. In addition, retaining programs were carried out from time to time. This was combined with supervision and mentoring to build capacity and motivation.
	Health-related commodities and services were not provided in school settings. Formal linkages to community-based health and social services were built.

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Table 3. Continued.

Resources	Activities relating to the organization and delivery of SE were integrated into work plans and budgets of the responsible officials/units in education and health at the department level and covered by the respective departments. SE was delivered in existing classrooms by existing teachers, although specific budget allocation was carried out in specific subsystems with the creation of Reference SE Teachers. Costs relating to teacher training/retraining were also covered by state governments. Pre-service training was integrated into the work plans and budgets of teacher-training institutions.
Monitoring and evaluation	After two years of implementation, the first diagnostic evaluation was carried out in February of 2008. It was a qualitative study to learn about the perceptions of the different actors involved in the implementation of the SE Programme, including the different subsystems of ANEP, Ministry of Health. This was followed by a mixed-method evaluation, carried out in 2009, focusing on areas of the SE Programme to consider when assessing its continuity. Strengths and weaknesses of the strategies used in educational centers for incorporating SE into the curricula were identified and recommendations were outlined in the following areas: the institutional framework of the program, curricular implementation, teaching practices and teacher training and knowledge production. Finally, after a technical consultation with UNFPA in 2014, a new evaluation of the SE Programme was carried out in 2015 to assess availability, accessibility, acceptability, quality, and response to the specific needs of the various educational centers and their contexts. This evaluation included all ANEP subsystems from the perspective of students and teachers.
Communication and advocacy	Since SE was mandatory and since there was no overt resistance to it, the focus of communication within the government was to keep the many different departments informed and on board. Alongside this, was also a strong public engagement program, which the NGOs contributed to.
Building support	Through its progressive laws and policies and corresponding programs, the Government set the agenda for SE as part of a package of SRH services. Civil society groups including NGOs worked with the Government to build societal support, which was already accepting of the need to prepare adolescents for their SRH lives and to provide them with the support they needed.
Overcoming resistance	Between 2005 and 2019, the central government was formed by left- and center-left political parties which had socially progressive agendas, including in relation to SE. The change of government in 2019-20—with right-leaning political parties in power—resulted in some dampening of that support. This recalled what had happened in the second half of the 1990s- early 2000s. But there continues to be solid support for SE both within the Government and in civil society.
Promoting and safeguarding sustainability	Firstly, as noted above, the provision of SE in Uruguay is grounded within the context of laws and policies enshrining SRHR as human rights. Secondly, SE provision has been embedded into national programs e.g., the reduction of adolescent pregnancy and childbirth. Thirdly, the delivery of SE is integrated into the functions of individuals and institutions who are an integral part of the health and social welfare system. Fourthly, Documentation and Reference Centers created throughout the country stimulated and supported local leadership to sustain the program.

[a](i) Relationships; (ii) values, rights, culture, and sexuality; (iii) understanding gender, (iv) violence and staying safe; (v) skills for health and wellbeing; (vi) the human body and development; (vii) sexuality and sexual behavior; and (viii) sexual and reproductive health.

[b]Life Skills Based Education aims to inform students about health while equipping them with skills to better manage their own lives and make healthier decisions (WHO. Programming for Adolescent Health and Development – Report of a WHO/UNFPA/UNICEF Study Group, WHO, Geneva, 1999.) https://www.who.int/publications/i/item/9241208864.

[c]This study is a notable exception: Wood SY, Rogow D, Stines F. Preparing teacher to deliver gender-focused sexuality and HIV education: a case study from Nigeria: *Sex Education*, 2015. 15, 16. https://www.tandfonline.com/doi/full/10.1080/14681811.2015.1066243) [CrossRef][10.1080/14681811.2015.1066243].

[d]MEXICO CITY MINISTERIAL DECLARATION "EDUCATING TO PREVENT" Fundamental Principles and Tenets of the Declaration, taken from https://healtheducationresources.unesco.org/sites/default/files/resources/iiep_983.pdf (accessed August 3rd 2021). The full text of the Declaration can be found at http://www.unesco.org/new/fileadmin/MULTIMEDIA/FIELD/Santiago/pdf/declaration-preventing-education-english.pdf (accessed August 3rd 2021).

[e]REFORMA CONSTITUCIONAL SOBRE EDUCACIÓN SEXUAL. ARTICULO 3 PÁRRAFO UNDÉCIMO. "Los planes y programas de estudio tendrán perspectiva de género y una orientación integral, por lo que se incluirá el conocimiento de las ciencias y humanidades: la enseñanza de las matemáticas, la lecto-escritura, la literacidad, la historia, la geografía, el civismo, la filosofía, la tecnología, la innovación, las lenguas indígenas de nuestro país, las lenguas extranjeras, la educación física, el deporte, las artes, en especial la música, la promoción de estilos de vida saludables, la educación sexual y reproductiva y el cuidado al medio ambiente, entre otras". Párrafo adicionado DOF 15-05-2019 Available at: http://www.diputados.gob.mx/LeyesBiblio/pdf_mov/Constitucion_Politica.pdf (accessed August 3rd 2021).

[f]The complete curriculum can be examined (in Spanish) at: GOBIERNO DE MEXICO. Plan y programas de estudio para la educación básica. Available at https://www.planyprogramasdestudio.sep.gob.mx/index.html (accessed August 3rd 2021). The books distributed are available in digital format at https://www.conaliteg.sep.gob.mx/ (accessed August 3rd, 2021).

[g]Castagnaro K, Monterrosas Castrejón E. (2016). Evaluation of the Implementation of the Ministerial Declaration. From Commitment to Action. IPPF WHR New York. https://www.ippfwhr.org/wp-content/uploads/2018/08/Ministerial-Declaration-Evaluation-2012 1_-1.pdf. See also: Hunt F, Monterrosas Castrejon E, Mimbela R. Evaluation de la implementacion de la Declaracion ministerial: Prevenir con educacion - su cumplimineto en America Latina 2008–2015. Available at: http://salutsexual.sidastudi.org/es/registro/a53b7fb35a776666015afff97d5b0299 (accessed August 3rd, 2021).

[h]A very good summary of these tensions and resistance to sexuality education in Mexico can be read at: Díaz Camarena, Armando Javier. (2020). The new official contents of sex education in Mexico: laicism in the crosshairs. *Diálogos sobre educación. Temas actuales en investigación educativa*, *11*(21), 00019. Epub 03 de marzo de 2021.https://doi.org/10.32870/dse.v0i21.660.

[i]Martinez R, Villalobos-Hernandez A, Allen-Leight B, Breverman-Bronstein A, Lynn Billings D, Uribe-Zuninga P. Sexual and reproductive health outcomes are positively associated with comprehensive sexual education exposure in Mexican high-school students. *PLOS ONE*. 2018. https://doi.org/10.1371/journal.pone.0193780 [PMC][10.1371/journal.pone.0193780] [29554152].

[j]Suprema Corte de Justicia de la Nación, Segunda Sala, Amparo en revisión 203/2016. 9 noviembre de 2016. [Garantía de acceso a asesoría y orientación sobre salud sexual.

topics (within each concept) are left out e.g., an explicit discussion on sexual behavior, consent, contraception, and any discussion on safe abortion care. Further, issues regarding sexual orientation, gender identity and expression are addressed in the curricula of Mexico and Uruguay, and to lesser extent in the Indian curricula, but not so in the other three countries. Secondly, in terms of the level at which the curricula are developed, in the national-level scale up initiatives described (Nigeria, Mexico, Senegal, and Uruguay), curricula were developed at the national level, but a provision for state-level adaptation was built into the scale-up strategy in all countries but Uruguay. In India and Pakistan, curricula were developed and vetted at the state/province level. Secondly, approaches to tailoring the approved curricula to respond to local realities differed in the countries studied. In India and Pakistan, the approved curricular content was unchanged for application at the district level. The same is true for provincial applications of the curriculum in Senegal and Uruguay. In Nigeria, it was adapted to address the sensitivities in some states and in Mexico, some states included an additional module for secondary school pupils. Thirdly, in terms of students targeted, in India and Pakistan, the curriculum targeted secondary-school students (to begin with and later extended its target to middle-school students). In Senegal on the other hand, it was initiated for primary school students and then extended to those in secondary school. In Nigeria both middle and secondary school students were targeted from the outset. In

Mexico and Uruguay, both primary and secondary-school students were targeted. Fourthly, in terms of delivery, in all six countries, the curriculum was delivered by existing teachers in classrooms as part of the school curriculum. Finally, in terms of integration, in India, Mexico, Nigeria, Pakistan (in the scale up phase) and in Senegal, curriculum delivery was integrated into teaching on other subjects. In Uruguay it was integrated into different subject areas in the pre-primary and primary stages but delivered as a stand-alone subject in the secondary school stage.

According to the WHO-ExpandNet framework (WHO, 2010), the desired attributes of an innovation are relevance, credibility, clarity and compatibility with prevailing values and norms, and ease to put in place. In all six sites, the content of the SE was relevant to the needs and problems of pupils. It was credible in that the curriculum and teaching-learning materials were developed by experts using a consultative process managed by national ministries which are mandated to do this. Despite that, because the content addresses sexuality, reproduction, and sexual and reproductive health, it was not really compatible with prevailing norms that saw educating children and adolescents about these issues as not in line with local culture and tradition. Teachers in all six countries found it challenging to deliver their respective curricula despite receiving training and support.

The resource organization. In Nigeria, Mexico and Uruguay, scale up of SE was led at the national level by the central ministry of education or the government body in charge of national compulsory education and by their counterparts at the subnational level. In Mexico, decentralized bodies such as the National Population Council played a key role. In India, the scale up effort was led by the Jharkhand State Government. In Pakistan, NGOs working both separately and as members of an alliance co-led the effort with different provincial governments. In Senegal, the scale up effort in secondary schools was led by a national NGO but for primary schools, it was led by the Ministry of Education. In all countries, NGOs worked with government departments of education to support the scale up effort.

According to the WHO-Expand framework (WHO, 2010) the desired attributes of a resource organization are leadership, credibility, commitment and capacity. The lead resource organizations in all countries—the ministry of education or government body in charge of national compulsory education at the national or subnational level had the mandate to lead the effort and the credibility in the eyes of all the stakeholders to do so. They were also committed—to a greater or lesser extent—to this effort. However, they did not have the capacity to either develop the curriculum or to roll it out (with the arguable exceptions of Mexico and Uruguay). This is where they relied on partnerships with NGOs or UN agencies. In Senegal, the fact that

the scale up at the secondary school level was led by an NGO partly hindered national roll-out. They were able to develop a solid curriculum and roll out effectively in two focus regions but were not able to roll-out at national scale, because the program was not embedded within the national education system.

The user organization. All six countries mandated the provision of SE in schools and enabled the use of the huge institutional resources of the school network—human resources, infrastructure, and logistics systems, as well as the ability to reach children and adolescents. In all six, subnational departments of education were responsible for planning, managing and supervising the delivery of SE. NGOs played a key role in building support for SE locally (in all six cases), in supporting local adaptations (in Nigeria) and developing additional modules (Mexico), in building the capacities of teachers to deliver SE (in all six) and in monitoring and reporting on their efforts (in all six to a greater or lesser extent).

In the terms of the attributes specified in the WHO-ExpandNet framework (WHO, 2010), subnational departments of education clearly had the mandate to call for the delivery of CSE and the institutional capacity to deliver it. Their uneven commitment was bolstered, and their lack of capacity complemented by the NGOs which were passionately committed to SE, and had expertise in this area, based on hands on experience in their projects but not the means to deliver at scale.

Strategic choices in scaling up. In terms of vertical scale up, in all six countries, supportive national policies mandated governments to put in place/sustain school-based SE. In terms of horizontal scale up, all countries but Senegal scaled up simultaneously, rather than in phased manner. Senegal did so in phased manner with priority given to two regions with high levels of HIV and adolescent pregnancies and childbearing. The stewardship of the scale up effort was decentralized in that it was overseen by governments at the subnational level in all countries. NGOs played key roles in supporting the scale up effort in all countries. In some of them (e.g., India, Nigeria and Pakistan), this was based on formal partnership mechanisms with clearly defined roles.

To sum up, as noted in the WHO-ExpandNet framework (WHO, 2010), the grounding of the roll out of school-based SE in national policies and strategies in all countries—legitimized SE, enabled its inclusion in national and sub-national work plans and budgets, and the deployment of the substantial human and other resources at the control of respective governments. Governments called for simultaneous rather than phased country-wide implementation, and in these large and

complex countries, permitted/accepted a limited level of local adaptation (This does not apply to India and Pakistan because both were subnational level efforts). Finally, subnational governments were charged with the responsibility for leading this effort and encouraged but not obliged to engage with non-state actors to facilitate this.

Managing scale up

Management and organization. The WHO-ExpandNet framework stresses the importance of charting out the management of the scale up process—its scope and pace, whether it is to be centralized or decentralized, whether it is to be adaptive or fixed, and who would drive it (WHO, 2010). In addition, there are additional managerial considerations in relation to SE delivery—selecting the cadre/s of teachers to deliver SE, building their capacity and comfort (and sustaining this), making the classroom environment safe and supportive for the delivery of SE, and linkage to health and social services.

In all countries but Senegal, the scale up effort covered the entire geography at the same time i.e., it was not phased (In Senegal, scale up was focused on two regions as noted above.). The scale up processes in all countries were decentralized in that they were designed and executed at the subnational level. Although the core approach was the same i.e., delivery of an agreed upon SE curriculum in school by existing teachers, the processes were slightly different in the countries studied (as outlined in Table 3). In all countries, SE was delivered by teachers who had other responsibilities. In each school, some teachers—based on clear criteria—were identified, trained, supported and charged with the responsibility of delivering SE (In Mexico, teachers could request for and receive more intensive training provided by the NGO community). Recognizing that a critical mass of teachers was needed, the pool of teachers was periodically replenished. Initially, teaching preparedness was built though in-service training. Subsequently, pre-service preparedness was built into a teacher-training institution, to a greater or lesser extent. Capacity and motivation were further built with mentoring and retraining. There were no clearly designated actions taken to ensure a safe and supportive environment for discussion in the school/classroom. Health-related commodities and services were not provided in school settings. Apart from Uruguay, no formal linkages to community-based health and social services were built.

Resources. In India, the provision of SE was integrated into the Jharkhand State's budget. This happened to a varying extent in the provinces of Pakistan where SE was scaled up. In Nigeria, Mexico and Senegal, it was integrated into federal and state budgets. In India, Mexico, and Uruguay

almost the entire funding was from indigenous sources. In Nigeria the lion's share of the budget was from external sources (specifically, the World Bank). Senegal's scale up effort too relied heavily on external support from different sources. This is also true for Pakistan, but to a lesser extent. In all countries, teaching and learning materials were printed and distributed by the government (with a combination of indigenous and external funding), and SE was delivered in government-run schools by teachers who were government staff. NGOs contributed to in-service training of teachers in all countries. Further, NGOs played a facilitating role in integrating SE into pre-service teacher training curricula in government-run institutions, but once this was done, routine pre-service training was supported by those institutions themselves, to a greater or lesser extent. External funding covered the vital ongoing catalytic and mentoring roles that NGOs played such as advocacy, training and retraining and support for teachers and for periodic evaluations.

The WHO-ExpandNet framework (WHO, 2010) stresses the importance of integrating scaling up efforts into national and sub-national work plans and budgets, and of tapping into existing funding mechanisms. While integration occurred in all sites, in Nigeria and Senegal (unlike in India, Pakistan, Mexico and Uruguay) there was heavy reliance on external funding for the entire effort.

Monitoring and evaluation. In India, through the different phases of the evolution of Udaan, a series of independent evaluations of the program were carried out. In the other five countries, evaluations were carried out but not as regularly. In all countries, the evaluations that were conducted, assessed the learnings and the perceptions of the students; and the perceptions of management/administrative staff and teaching staff. Teacher competencies and performance (i.e., quality of teaching) were not assessed in formal evaluations but were assessed during monitoring and supervision visits, and ameliorative actions taken (apart from Mexico). Management Information Systems were set up in all countries and used to monitor and report on progress in implementation. Data on the coverage of SE in terms of geographic area, schools, teachers, and pupils were gathered, reported and used to celebrate progress. Learnings from evaluations were used to inform operations, to advocate for continued action, to share lessons with states/provinces/departments which were making less/slower progress, and to extend the education to younger pupils and to other settings.

The WHO-ExpandNet framework (WHO, 2010) stresses the critical importance of monitoring and evaluation, using methods such as routinely gathered statistics, special surveys, and formative and intervention

effectiveness research. This was done and the findings used in all three sites. Given the available information, this appears to have been done more systematically in India than in the other countries.

Communication and advocacy. The WHO-ExpandNet framework (WHO, 2010) stresses the importance of employing appropriate communication approaches and building the needed relationships for the scale up effort. The Schmeer framework (Schmeer, 1999) takes this discussion a step further. It calls for identifying those who might support or oppose an initiative, to gather and analyze information about them to understand who they are, how influential they are, and why they are doing what they are. Based on this, it calls for targeted approaches tailored to reach and influence them.

Proactive, targeted, energetic, and ongoing communication was a key component of the scale up effort in each country. Communication was used to make the case for the SE, to build support for its scale up, to build a shared understanding of the approach to be used, to build and maintain partnerships and support for the scale up effort, and to overcome resistance. Depending on the objective, communication was targeted at education department officials, influential community members—both religious and secular—and associations of media professionals, teachers, and parents. In India and Pakistan, this was at the subnational level, but in the other four countries, communication and advocacy were required first at the national level, and then at both national and subnational levels. countries.

Building support and overcoming resistance. Even though the foundational basis of the scale up of SE was a national policy, all six countries recognized the importance of building acceptance/concurrence for the scale up effort. They worked with a range of stakeholders on how to name the SE program, on which groups to children/adolescents to reach and on what to include in its content. In doing this, they made compromises. Further, all countries made efforts to build support for SE through active outreach to different stakeholders at both national and subnational levels. Generally, this was done more energetically when the SE scale up was launched and less so once the SE scale up was under way e.g., in Nigeria. In India, ongoing engagement with the media led to more positive reports about the SE work, and fewer negative ones. In Pakistan on the other hand, backlash to SE prompted Aahung and other NGOs to stop their work temporarily, to do a mapping of stakeholders and systematically engage them with tailormade approaches while reaching out to the (wo)man on the street to explain what they were doing, why it was needed, and how it would help (not harm) those being reached.

The six countries studied are different in many respects; one issue of relevance here is acceptance of/concurrence with the need for SE. In some countries such as Mexico and Uruguay, while there is support for the provision of SE, the inclusion of issues such as abortion or non-heteronormative sexuality triggers opposition. In others, there is a high level of discomfort and disapproval with any open discussion on sexuality. The implicit ask seems to be: "Tell them as little as you can, but by all means tell them not to have sex." In countries with conservative social contexts, the name or label of the program is carefully chosen to avoid opposition. Here are three examples. In India, the name chosen by the Ministry of Education is Adolescence Education Programme. This name is now used because in 2008, a committee of the "Rajya Sabha"—the Upper Chamber of the Indian Parliament—made a decision that there should be no SE in schools in India. Udaan is the name used in Jharkhand State for the state-level Adolescence Education Programme. It means to soar like a bird in flight. Such a name is deliberately used because no one can argue with the idea that we want our children and adolescents to soar to rise and shine in their lives. In Senegal, the terms, Family Life Education, and Reproductive Health Education have been used, as part of a strategic effort to avoid resistance. In Pakistan, the label used is Life Skills-Based Education, an interactive teaching methodology that informs students about health while equipping them with skills to better manage their own lives and make healthier decisions.

In recent years, opposition to SE has grown stronger, better organized and more well-resourced, sometimes entirely homegrown and at other times provoked by external players. All six countries have had to respond to opposition from decision makers and/or from the society at large. In some such as India and Pakistan, organizations leading/co-leading the SE scale up effort have learned through experience to move from being reactive to being proactive in responding to opposition. They have learned to prepare for, anticipate and respond calmly and purposefully. They have even developed standard operating procedures for responding to attacks which are aimed at embarrassing and intimidating government and nongovernment bodies involved in SE provision.

Promoting and safeguarding sustainability. In all six countries, the point of departure for the scale up effort was that school-based SE provision was part of national policy. This provided the basis for curricular integration. SE was integrated into national (where applicable), state and district level work plans and budgets and monitoring and reporting frameworks. This meant that government bodies at national, state and local levels were

charged with the delivery of SE, its monitoring and reporting, and the oversight of the scale up effort. Sustainability seems assured in India, Pakistan, Mexico and Uruguay, but not in Nigeria and Senegal because of the heavy reliance on external resources.

Discussion

This section is organized as follows:

> Firstly, in relation to each research question, it addresses the following points: the principal findings, how the findings relate to findings from other similar studies, and the interpretation of the findings, when placed in the context of the findings of other studies. Then, looking at the study globally, it comments on: the strengths and weaknesses of the study, the implications of the study for research, development, and policies and programs.

Although the past tense is used to report on activities that have occurred, all six of the programs are currently underway in some form.

Are there LMICs that have scaled up and sustained SE programs?

The answer is yes. There are in fact LMICs from around the world that have scaled up and sustained SE programs. While scale up has occurred and has been sustained, the geographic coverage and the period during which the scale up has been sustained vary in the six countries studied. To a greater or lesser extent all have generated data on programmatic outputs and outcomes.

The findings from the study are in line with those that have set out the state of the ASRHR field at a point in time, over the last two decades (Focus on Young Adults, 2001; Population Council, 2009). SE programs have been in place in some Western European and Latin American countries for many decades now. In other parts of the world, they were set up as part of "population control" efforts in the sixties and seventies. They were revived and redirected to address the problems of HIV (to a greater extent) and adolescent pregnancy and childbearing (to a lesser extent) in the 1980s, and then to a broader SRH orientation in the late 1990s and early 2000s. In most countries, these efforts moved from project to program mode only at the end of the first decade/start of the second decade of the 21st century (UNESCO, 2015).

What factors enabled these countries to place the nationwide scale up of SE education on their national political agendas?

Transnational advocacy combined with domestic advocacy contributed to placing nation-wide scale up SE on the political and governmental agenda

in five of the six countries studies (In Mexico, SE has been on the agenda for many years now). In some countries this advocacy was direct, overt, and vigorous, and in others it was less so. Different arguments/were used to make a case for SE and in several countries, political windows of opportunity were cleverly used to table these arguments and open doors. In all countries, including Mexico, domestic advocacy by a coalition of NGOs and other civil society bodies working on gender and rights, was key to keeping SE on the agenda.

The findings from this study are consistent with Shiffman's findings on factors that contributed to placing maternity mortality high on national agendas in several countries, before the MDG era (Shiffman, 2007). Transnational influence (direct and/or indirect) e.g., by UN agencies and international NGOs to put SE scale up on the priority agenda, or to ensure that it stayed there, were important in the six countries studied. Offers of technical and financial assistance were crucial in some settings but not in others. Domestic advocacy through individuals and organizations which came together and worked together with one goal was crucial. Such advocacy—by what Shiffman calls a "policy coalition"—was most effective when champions from civil society worked with influential people inside the political establishment and/or the government bureaucracy. The importance of identifying windows of opportunity—either political change or a social event—and using them strategically played a game-changing role in some settings. Finally, clear messages on what to scale up and how to do so, backed up by international evidence and national experience, were important.

As noted in the introductory section of the paper, there is still widespread discomfort about SE. Given this, there often are queries/concerns about whether the SE is harmful to children and adolescents. That is the challenge that advocacy on SE has to deal with (Gunasekara, 2017; Keogh et al., 2018; Vanwesenbeeck et al., 2015;)

What were the factors that enabled these countries to implement their policies, and to scale up and sustain the scale up of sexuality education in their countries?

Three sets of factors enabled these countries implement their policies, and to scale up and sustain the scale up of their SE programs. Firstly, they planned the scale up effort meticulously, defining what would be scaled up *(the innovation)*, who would be responsible for supporting the scale up effort *(resource organization)* and who would be responsible for delivering SE *(the user organization*). This planning was done with an intimate knowledge and understanding of the environment they were

working in *(environment)*. Secondly, they did not let the scale up effort occur on its own. They *managed* it; *secured resources*—human, material and financial for it; *advocated* for it; *tracked* how it was doing and used that learning to reshape efforts through problem solving and action planning on an ongoing basis. In both planning and managing the scale up effort, a key consideration was linking and integrating efforts into existing policy and strategy frameworks, workplans and budgets, and delivery systems. Thirdly, a key aspect of their communication and relationship building effort was aimed at *building support and anticipating and overcoming resistance* to SE. There were clearly some important innovations e.g., in forging productive government civil society partnerships, in building alliances and negotiating compromises, and in working with the media both as allies and opponents. But overall, the approaches used were not new; these countries brought these approaches together and doggedly pursued them.

Our conclusions are in line with a growing body of publications of experiences gained in delivering SE at school, and the proposals made for the way forward (Haberland & Rogow, 2015; Keogh et al., 2018: Gunasekara, 2017; Ketting & Ivanova, 2018; Nguyen et al., 2019; Paren et al., 2020; Pound et al., 2017; Rutgers, 2021; Smith & Colvin, 2000; UNESCO, 2015, 2017, 2019, 2021; Vanwesenbeeck et al., 2015). This is illustrated below by the conclusions of two UNESCO reports——one published in 2017 and the other in 2021.

Based on case studies from 16 Eastern and Southern Africa countries which are at different stages of scale up of CSE, a UNESCO report set out what it takes to scale up CSE programs: (i) creating an enabling environment for the implementation of CSE programs: strong leadership, a conducive legal and policy environment, an institutional home for CSE, a situation analysis and a costed scale-up plan, and effective collaboration and coordination (ii) making decisions on different technical aspects of scale up: what curricular content to include in alignment with the identified health goals, what CSE delivery model to use, what CSE-related materials are required, and how they will be developed, how teacher training (and other cadres) on CSE will be provided, what system to put in place for effective monitoring and evaluation (iii) addressing factors that affect the delivery of CSE (at the local level): a conducive and safe physical and psychosocial environment in schools, community and parental engagement, functional linkages to sexual and reproductive health services, and CSE delivery outside and around the school. What these organizations did is just what a recent stock-taking report prepared by six UN agencies including WHO recommends (UNESCO, 2017).

Based on global data in the public arena, survey data available in the public arena—from 2018-20 in all the world's regions, key informant interviews, and an extensive desk review, six United Nations agencies led by UNESCO called: (i) for CSE to be clearly mandated in policy and legal frameworks, (ii) for a dedicated budget to be assigned to CSE and for co-financing by donors, (iii) for efforts to increase coverage of CSE along with investment in teacher-learning materials and teacher training and support, (iv) for better monitoring of coverage, (v) for continued efforts to ensure that curricula cover a broad range of essential topics in line with international guidance, (vii) for countries to invest in in-depth analysis of their curricula against international guidance to identify their strengths and weaknesses, (vi) for further investments in both pre-service and in-service teacher training, (viii) for a greater focus on quality training to increase teachers' knowledge as well as their use of the pedagogical skills required to deliver CSE effectively, (ix) for research into models of teacher training that are effective and can be scaled up in a way that is cost-effective without jeopardizing quality, (x) for continued advocacy on the relevance of CSE, (xi) for continued efforts to work with governments to help them understand the long-term benefits of CSE, and to involve other sectors, (xii) for continued monitoring of progress—and challenges in meeting them—in line with national, regional and international commitments, (xiv) for strengthening the use of globally recommended indicators to monitor the status of CSE, and to develop/include new ones as appropriate (UNESCO et al., 2021)

A useful analogy is a game of chess. Occasionally, with a small number of brilliant moves—or equally with a small number of disastrous moves by one's opponent—one can seal victory. But more often, victory is achieved slowly and painstakingly. One needs to deploy one's resources in line with a preformed strategy—based on an understanding of one's opponent—while being flexible to what is happening on the chess board—jumping in to use an opportunity that has arisen or retreating to recoup one's losses and to replan. In scaling up, sustaining, and enhancing CSE, as in winning a chess game, one needs knowledge and experience, but beyond that one needs commitment and doggedness to do the different things—some stimulating and many other tedious—that need to be done to reach one's objective.

Strengths and weaknesses of the study

Strengths

This study has three clear strengths. Firstly, its implementation research focus responds to the core of today's public health challenge—and specifically for ASRHR—i.e., while our collective knowledge of efficacious and

effective interventions to improve ASRHR has improved, gaps remain in our knowledge of how to deliver these interventions effectively at scale in resource-constrained settings, while ensuring quality and equity. From program reviews and evaluations in LMICs, it is evident that these interventions are being poorly designed, implemented and monitored because of an array of challenges, such as health worker bias in providing sexual and reproductive health services to adolescents and teacher reticence to providing SE (Michielsen et al, 2016). Implementation research can provide timely, relevant knowledge on how and why implementation is going well or not well and can be used to test approaches to improve the quality and effectiveness of interventions in specific contexts (Peters et al., 2013). Secondly, country policies and programs are often reviewed and sometimes evaluated but their processes and rarely documented; as a result, important learning does not inform policy and program design. On the other hand, a limited set of intervention effectiveness studies are stated and restated in systematic reviews (Horton, 2019). This study—and the work it represents—has responded to a call made by researchers, policy makers and programers (Michielsen et al., 2016; UNESCO, 2020) and is feeding into global policy briefs and normative guidance e.g., it has fed into a global stock-taking report on CSE (UNESCO et al., 2021). Thirdly, for each of the three research questions, research methods and tools that have been tried and tested tried and tested tools, were used (Centre for Global Development, 2009; Schmeer, 1999; Shiffman, 2007; WHO, 2010).

Weaknesses

The weaknesses of the study relate to its objectives and methods. In relation to the former, it deliberately focused on countries (or regions within countries) that had scaled up, sustained and enhanced their SE and on the factors that enabled them to do so; it did not study countries that have not scaled up SE and the factors influencing this; nor did it compare and contrast "those that stayed in the norm" with "those that positively deviated from the norm." Secondly, the study did not examine the state of SE outside the school setting, or even whether school-based SE was percolating into "catchment communities" in which they are set. In relation to the latter, the study's weaknesses relate to the two methods used. The case study approach has sometimes been criticized for lacking scientific rigor, and for providing little basis for generalization (Crowe et al., 2011). Appreciative inquiry has been criticized for being unwilling—almost by definition—to name and describe problems and shortcomings (Reed, 2007). Further, both approaches rely on documents gathered after—sometimes long after—a program or project has ended, and, and on the recall and perspectives of people involved in the initiative (who may—in the first place—be hard to

find, and in addition may have biased views about it) (Igras et al., 2021). Both these challenges have been addressed—to the extent possible—by gathering data from multiple sources, triangulating this data, using this data to chart out a pathway, stating the assumptions made explicitly and verifying/reverifying them.

Implications of the study for research, development of norms and program support tools, and for policies and programs

The study has implications for research, development of norms and program support tools, and for policies and programs. Firstly, implementation research is heavily focused on prospective studies (Peters et al., 2013). While this is important to do, retrospective "post-hoc" evaluations (Igras et al, 2021) and case study development (Crowe et al., 2011) should be used much more than they are. It is heartening to note that WHO and other players are increasingly gathering and publishing "stories" of implementation from the field (UNFPA, UNICEF, 2021; UNFPA-WHO-ICM, 2021). Secondly, the development of guidelines and program support tools continues to rely far too heavily on experimental and quasi-experimental studies (WHO, 2014). They must be combined with country examples as is being done by USAID's High Impact Practices Project (HIPS, 2021). Further, while generic guidelines and program support tools make useful contributions to guide policy and program development, execution, and measurement, they must be complemented more proactively and strategically with South-to-South sharing of experiences of problems and how they are being overcome. Useful examples of this are the compilation of SE initiatives in Southern and Eastern Africa, and in Europe and Central Asia (Ketting & Ivanova, 2018; Paren et al., 2020). Thirdly, scaling, sustaining and enhancing SE programs, calls for a paradigm shift from external players (UN agencies, international NGOs, funders and others) hand holding national governments to plan, execute and track their programs, to a concerted and sustained effort in building a critical mass of indigenous individuals and institutions with passion and expertise in SE, who can carry others, including their governments and the wider public with them. That then is the single more important message emanating from this study—SE scale up cannot be done as a "turnkey" project by well-intentioned external experts, it cannot be done quickly using a cookie cutter approach, and it is not a smooth road. In every country that has scaled up, sustained, and enhanced its SE program, it has been led by individuals who learned by doing, and learned from others (including external experts and other countries) as and when they needed to, and grew and developed in the process (Table 4).

Table 4. Conclusions, recommendations and practical considerations for these recommendations.

Conclusions	Recommendations	Practical considerations
1. Studying how countries have secured support for scaling up, sustaining and enhancing SE, and how they have actually done this in their respective contexts, provides useful lessons that could be applied elsewhere.	A call for more research on how legal and policy advocacy, strategy development and application have been done in different contexts. This does not mean that such retrospective studies are the only ones that need to be carried out. But it does mean that studying what countries have done, using robust methodologies, should be done more widely (Igras et al, 2021; Crowe et al, 2011).	This will require researchers and bodies that oversee/fund research work to recognize case study development as appropriate to the study of the formulation of laws and policies, and of strategies and plans, and of their execution in different contexts. Further, methodological approaches to assure the validity and reliability of study development approaches will need to be standardized.
2. Currently policy and programme guidance draw primarily from experimental- and quasi- experimental studies. Properly developed case studies of projects and programmes in the real-world contexts can complement the findings of such studies and evaluations and thereby enrich policy and programme guidance.	A call for organizations developing policy and programmatic guidance to draw more heavily on lessons learned from policy advocacy and formulation/reformulation, and from strategy/programme development and execution work in real-world contexts (HIPS, 2021; Ketting & Ivanova, 2018; Paren et al., 2020; Rutgers, 2021)	This will require organizations developing policy and programme guidance and bodies that oversee/fund such work to recognize the value of the learning generated from properly-developed case studies, and to press for the inclusion of these lessons in policy and programme guidance.
3. In each of the six countries studied, the impetus for the effort to scale up, sustain and enhance SE programmes came from civil society bodies who were deeply immersed in SE. They learned by doing and from others (including those within and outside their countries) as and when needed, and grew and developed in expertise, confidence and ability to move the agenda in the process. Further, in each of these countries has strengths but also limitations. While each has scaled up, sustained and enhanced its programme, each has much to do to strengthen the content and the delivery of SE, and notably to make it inclusive of content for those with special needs and those with alternative sexual orientation, gender identify and expression. Cyclic quality and coverage assessments and actions to build on strengths and address gaps and weaknesses will be needed.	A call to organizations supporting countries to strengthen their SE programmes (including multilateral organizations, bilateral organizations, private foundations, and international nongovernment organizations) to complement their support to government bodies who are leading the effort, with sustained efforts to build a critical mass of individuals and institutions with expertise and passion in SE. These individuals and institutions could be from government bodies, nongovernment organizations and academia (West et al., 2012)	This will require recognition from the organizations supporting countries that external experts have a useful role to play e.g., they bring needed expertise to support processes such as curricular review, and they validate the messages of local champions. However, for SE programmes to be scaled, up, sustained and enhanced requires players with an intimate understanding of the changing political and social context, passion for the area and a commitment to stay the course.

Conclusions

Children and adolescents need and have a right to SE. There is convincing evidence from research studies and project evaluations that SE can prepare children for a healthy and happy sexual and reproductive life, and that it does not lead to early, increased or more risky sexual activity. In most LMICs, a large and growing proportion of children and adolescents are in school and could be reached with SE programmes. Many countries have policies in place to deliver SE in schools (which they name in different ways). In most countries, there is huge policy-implementation gap; the nature of this gap and the factors contributing to it are well understood. A small but growing number of countries have scaled up (to cover the entire country or administrative divisions within the country), sustained and enhanced their SE programmes. These—positive deviant countries—have done what many others in similar social, cultural and economic circumstances have not. While they employed some innovations, the approaches used by these countries were largely not new. They doggedly and cleverly used approaches available to all to achieve the results they did.

Notes

1. Even if the SE is delivered by teachers who are paid by the government and in schools run by the government, dedicated funds are required for a number of issues including training and supporting teachers and developing, publishing and disseminating teaching and learning materials.).
2. This paper uses the term Sexuality Education, not Comprehensive Sexuality Education. In doing so the authors acknowledge that most of these programs are not comprehensive in nature, though they are working to be more comprehensive than they are. Further, although the term Sexuality Education is used in this paper, each country uses different terms to describe their program and many sought to avoid the term sex or sexuality in their titles to avoid resistance.
3. As noted earlier, in Mexico SE has been part of national policy for many decades.

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