PAthways to Scale and Sustainability

How to Sustainably Scale Up Global Health Programs and Measure Progress

TCI's **PASS** *Learning Series #2*

December 2019

About TCI

The Challenge Initiative is led by the Bill & Melinda Gates Institute for Population and Reproductive Health in the Department of Population, Family and Reproductive Health at the Johns Hopkins Bloomberg School of Public Health. TCI's regional hubs are led by IntraHealth International in Francophone West Africa, the Johns Hopkins Center for Communication Programs (CCP) in Nigeria, Jhpiego in East Africa and Population Services International (PSI) in India.

Pathways to Scale Up and Sustainability: TCI's PASS Learning Series will be published periodically as TCI works to rapidly scale up and sustain proven reproductive health solutions for under-served urban poor communities, learns from implementation, and uses that knowledge to evolve its approach and ensure success. Selected content from this series will be written up in more detail for consideration in peer-reviewed journals.

Contact Us:

Bill & Melinda Gates Institute for Population and Reproductive Health
Department of Population, Family and Reproductive Health
Johns Hopkins Bloomberg School of Public Health
615 N. Wolfe St., W4506
Baltimore, MD 21205
https://tciurbanhealth.org/
info@tciurbanhealth.org

TABLE OF CONTENTS

ACKNOWLEDGMENTS

INTRODUCTION

Complex global health problems abound with devastating impact on the lives of people and the productivity of societies. Despite these challenges, public health programs have demonstrated that major successes are possible, even in the poorest of countries. For example, beginning in the 1950s Sri Lanka's government committed to extending safe motherhood services throughout the country, including rural areas, leading to remarkable declines in maternal mortality, from an estimated 500–600 maternal deaths per 100,000 live births in the 1950s[1] to 30 deaths per 100,000 live births in 2015.[2] Another case in point: In 20 endemic African and Asian countries, the prevalence of Guinea worm dropped by 99%, from 3.5 million cases in 1986 to fewer than 35,000 in 2003, through behavior change efforts among multiple partners.[3] And within a span of less than 10 years, polio was eliminated as a threat to public health in 1991 in the Americas through a region-wide effort that immunized almost every young child.[4]

Many more success cases exist. At the same time, the global health field also struggles to move effective innovations out of pilot phases into large-scale implementation to maximize their impact. On average, it takes nine years for research evidence to be implemented into practice.[5] A recent analysis demonstrated that accelerating scale-up of a hypothetical 20-year global health program by just one year could reach 10% more people, resulting in significant impact on lives saved.[6] Large-scale thinking is necessary to meet the global health challenges of today, yet the scale-up field is typically under-resourced and nascent.[7] Effective and sustainable scale-up requires more than just routine implementation.[8] It requires extra thought, attention and planning, but few programs are focused specifically on scaling up effective interventions and practices.

The Challenge Initiative (TCI), however, sets out to do just that. Built on the demonstrated success of the Bill & Melinda Gates Foundation's Urban Reproductive Health Initiative (URHI), TCI represents an exciting new approach to rapidly and sustainably scale up proven reproductive health and family planning solutions, including adolescent and youth sexual and reproductive health (AYSRH), in poor urban areas of low- and middle-income countries.

TCI believes that exponential growth and impact is possible – and that it can happen at rapid pace – when conditions are right. First and foremost, a shared mindset that local players must be in the driver's seat, that change is possible and that high-impact scale is doable is needed. The other ingredients for success – such as political and financial commitment, consensus around which evidence-based interventions to scale and capacity to implement and institutionalize those interventions – can then come together in synergistic ways to realize that impact. Many of these same factors are also needed for program sustainability.

TCI defines **sustainable scale-up** in terms of both depth and breadth. Depth refers to systems-level changes as a result of the institutionalization of proven health interventions while breadth encompasses increasing numbers of geographies implementing effective programs, thus reaching more people. Projects that

Key TCI Partners

- **Regional hub staff:** Individuals with many years of family planning program experience who serve as coaches to local family planning managers and implementers in their country or region. TCI provides hub staff training on TCI tools and key competencies, such as coaching, adaptation and leveraging resources.

- **Managers:** Local government leaders who make a political commitment and allocate local resources to strengthen family planning programs. Some are not family planning experts but have come to recognize the development benefits and return on investment of family planning.

- **Implementers:** Those at the front lines of project activities in TCI cities. Implementers are likely to be family planning, health district, facility-based personnel, and even community outreach workers, who need support in adapting and applying evidence-based interventions and tools from TCI University to implement and strengthen their own urban family planning programs.

focus only on achieving breadth are typically those that provide intense technical assistance and donor funding but without enough attention to institutionalizing practices within government structures and making the necessary systems-level changes to sustain results once donor funding ends, resulting in "empty" scale-up. On the other hand, pilot or "boutique" projects tend to dedicate intense project resources into ensuring proper monitoring, implementation and supervision of an intervention being tested but have a difficult time scaling the intervention to more areas.

TCI is designed to deliver sustained, cost-efficient impact at scale. Scale, impact, cost-efficiency and sustainability are the four interlocking tenets of the TCI platform. Scaling without impact is empty scale; impact at scale without increasing cost-efficiencies is not viable; and cost-efficient impact at scale that is not sustained will not produce lasting change. TCI delivers on all four – understanding that one without the other three is inadequate to achieve enduring progress.

This paper outlines key components of the TCI model and its underlying sustainable scale-up principles. It also demonstrates how TCI cities are bringing this model to life in urban family planning programs in East Africa (Kenya, Tanzania and Uganda), Francophone West Africa (Benin, Burkina Faso, Côte d'Ivoire, Niger and Senegal), Nigeria and India and shares the successes and lessons learned to date over the past two years of implementation. While particularly relevant for urban family planning programs, TCI believes its model is applicable to any global health and development area where evidence-based interventions have been codified and can be "right-sized" to fit the local context.

TCI'S BUSINESS UNUSUAL MODEL

Led by the Bill & Melinda Gates Institute for Population and Reproductive Health in collaboration with the Johns Hopkins Center for Communication Programs (CCP), IntraHealth International, Jhpiego and Population Services International (PSI), TCI focuses on the most under-served urban populations at sub-national levels, where population density is high and poor residents are often overlooked. It is in these urban areas – that often serve as autonomous economic, political, and social-organizing units – where bold initiatives can be implemented more quickly and effectively,[9] where leaders can be more responsive to local needs and where the potential for impact at scale is the greatest.

TCI operates at three different levels – the local city, the national or regional hub, and the global level – to cultivate a culture of local ownership, learning and continuous improvement to scale up family planning interventions in service delivery, demand generation and advocacy, and to do so in a sustainable manner. Local city managers and implementers in East Africa, Francophone West Africa, Nigeria, and India adapt, implement and scale up proven family planning and adolescent and youth sexual and reproductive health (AYSRH) interventions, drawing on coaching and support from "Accelerator Hubs" led by Jhpiego, IntraHealth International, Johns Hopkins Center for Communication Programs (CCP), and PSI, respectively, at the national/regional levels. As custodian of the TCI model, the Gates Institute at the global level provides a platform for coordination, learning and sharing among all three levels and with the broader global health community.

Unlike many health and development projects that invest heavily in global staff providing technical assistance – or the "doing" – TCI recognizes the need for new ways of thinking and operating to help support local governments to be efficient and effective (see Figure 1).
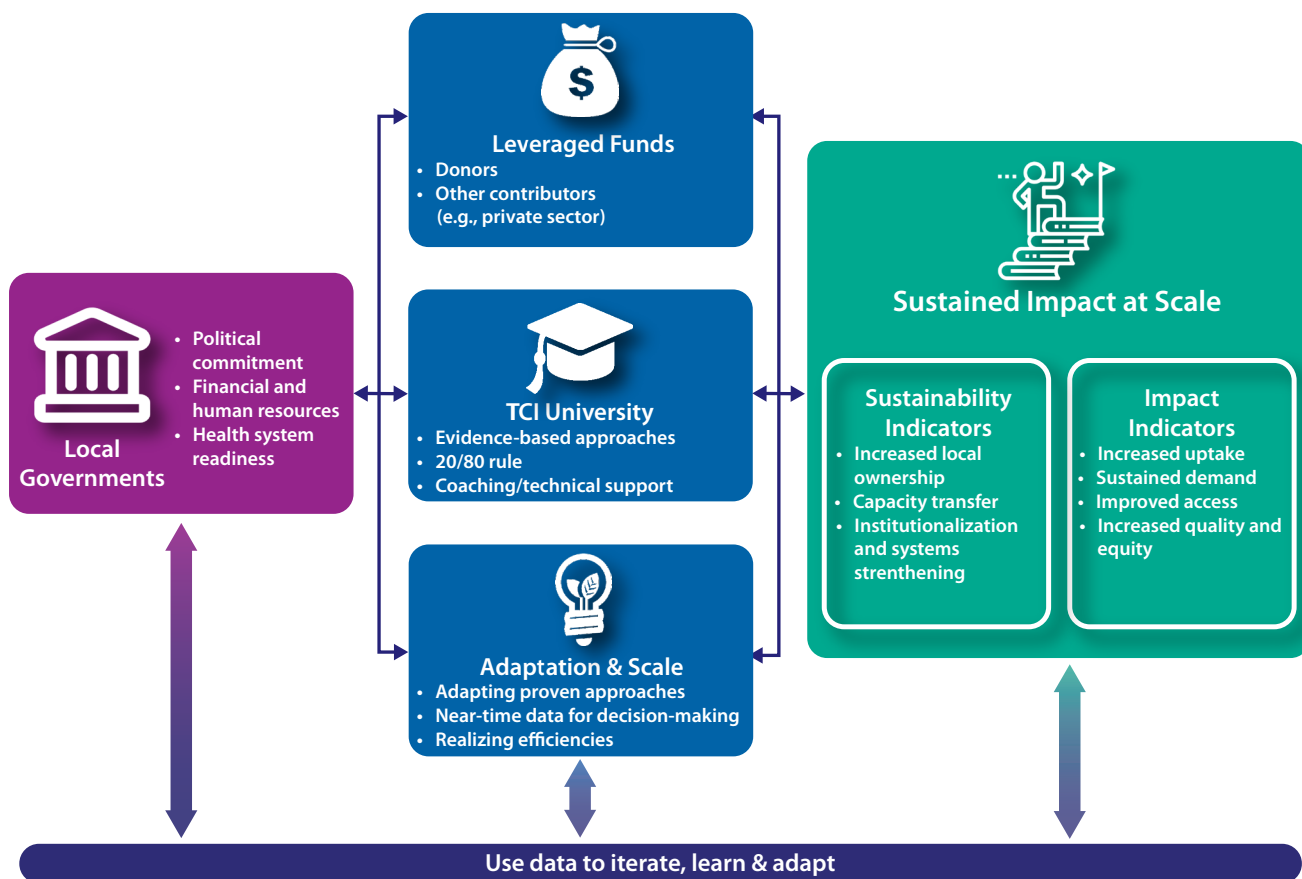

Figure 1: TCI's Theory of Change

TCI refers to this new mindset as "Business Unusual" based on the following guiding principles:

- **Demand-driven programs:** Cities with political and financial commitment self-select to join TCI and are in the driver's seat to design their own family planning and AYSRH programs. At a practical level, since local decision-makers determine priorities, secure resources and solidify stakeholder support,[10] they can expedite actions and circumvent the substantial time and effort usually needed to adopt and finance innovations at scale.[11] At a broader level, TCI's demand-driven approach signifies an important mindset shift for partners joining the TCI family that program implementation – or rather, scale-up – will look and feel differently than what they are typically accustomed to.

> TCI is a *scale-up* program: It provides the platform and guidance for rapidly scaling interventions proven to work in diverse real-world settings.

- **System readiness**: TCI engages with cities that demonstrate their willingness, readiness and ability to address their family planning and reproductive health challenges. These cities typically have adequate infrastructure and resources but may have weak programming and limited coordination. Gap funding from TCI – referred to as "The Challenge Fund" – complements resources that cities contribute themselves.

- **Right-sizing interventions**: While TCI embraces innovation in the way it does its work, its focus is on supporting cities to select and scale proven interventions in service delivery, demand generation and advocacy. It also encourages prioritizing those interventions that will address the most significant gaps in a given context and leveraging the skills and resources of other allied implementing partners and donors to fill remaining gaps. One of the key challenges of scaling an intervention is "finding just the right features" – what is commonly referred to as the [Goldilocks Challenge](). While TCI's starting point is proven interventions, its goal is to not simply replicate that intervention but to simplify it by finding the right mix of features so it is easier and faster to implement while reaching more people, more places – and, most importantly, having the same (or greater) impact.

- **Coaching and continuous learning opportunities to improve cities' skills, confidence and implementation:** TCI regional/national hubs provide cities with technical support and coaching about proven interventions that meet the local needs, constraints and opportunities of their particular context. Its coaching model is another cue about the mindset shift needed when partnering with TCI: TCI coaches do not implement programs; rather, they serve as resources and advisors to help city teams solve problems as the city teams design, manage and implement the interventions themselves. Coaching typically starts out at high intensity, but city implementers expect this to gradually taper off as implementation progresses and city teams gain confidence – what TCI refers to as the "Lead, Assist, Observe Coaching Model" (see box). In fact, experienced TCI cities transition from receiving coaching to themselves supporting newer cities, allowing TCI to engage with a growing number of local governments. In addition, city implementers, as well as coaches, receive additional support from [TCI University (TCI-U)](). This web-based platform serves as an open "university without walls," providing a continuous learning environment for an unlimited number of city teams as demand for the model rises over time. TCI-U ensures consistency in implementation of proven interventions across diverse

> **TCI Technical Coaching Model: Lead, Assist, Observe**
>
> TCI regional hubs initially – and briefly – take the **Lead** in family planning intervention design, management and implementation by working hand-in-hand with government counterparts to demonstrate how to implement a proven approach.
>
> Through this learning-by-doing coaching guidance, local government counterparts soon start to lead implementation as TCI regional hubs **Assist** when requested by the government or when they identify a gap.
>
> The ultimate coaching goal is for the regional hubs to **Observe** – that is, to serve solely in an observational or supportive role as cities move towards graduation.

geographies through its library of curated toolkits, with ready-to-use but easy-to-adapt templates, guidelines, job aids and training materials. It also houses a community of practice that stimulates cross-city exchanges and peer-to-peer learning.

- **Leveraging existing systems:** Rather than working outside of existing systems, which can lead to duplication, waste and missed opportunities, TCI works within existing government- and community-led systems to harmonize strategies, plans, funding and technical assistance and, therefore, furthers longer term sustainability. Consequently, implementation of proven interventions becomes the new norm in all sub-systems of the health system, including policies and procedures, human resources, financial and managerial practices.

- **Using near- to real-time data to learn and adapt:** As TCI engages with city partners, it strengthens capacity to use data for problem-solving and better decision-making. Existing data systems, particularly local health management information systems (HMIS), provide ongoing data and are supplemented with project records, PMA Agile (an innovative mobile-based platform that facilitates rapid, low-cost collection and tracking of data) and other local tracking surveys. Qualitative methods such as the Most Significant Change technique and regularly scheduled "pause-and-reflect" sessions help to make sense of complex program impacts in dynamic contexts. On a regular basis, TCI takes all of these data points into consideration to learn from doing – what it refers to as "thinkering." And it encourages its partners to take bold action – even if it means failing at times – but to fail fast and adapt in real time.

> **What Is Thinkering?**
>
> A fusion of the words "think" and "tinkering," TCI stakeholders are encouraged to constantly reflect on, review and revisit their assumptions, strategies and ways of working, especially if desired outcomes are not materializing.

These principles – from being demand-driven and putting local geographies in the driver's seat to a focus on coaching instead of technical assistance and emphasizing adaptive management approaches using near- to real-time quantitative and qualitative data – require new ways of working to be efficient and constantly move forward. TCI does not just "increase inputs" to the health system; it "improves the use of those inputs."[12] Furthermore, since the principles are relevant beyond family planning and AYSRH, TCI's model shows promise for scaling and sustainability in a broader range of fields.

What are the theoretical and practical underpinnings of TCI's model that help ensure the results achieved will be sustainable at scale? And how does it gauge sustainability when still in the midst of the scale-up process? The following sections explore these issues.

THEORETICAL UNDERPINNINGS FOR SUSTAINABLE SCALE-UP

The literature on large-scale change in global health has identified key success factors or drivers for explaining successful scale-up.[13] These factors include the following:

- Choosing a simple intervention widely agreed to be valuable – one that is known to work
- Strong leadership and governance
- Active engagement of a range of implementers and of the target community
- Tailoring the scale-up approach to the local situation
- Incorporating research into implementation

In addition, the literature identifies external catalysts, such as political and economic crises or pressure from outside actors, as potential drivers of the scaling process and the importance of incentives and accountability to ensure sustainability. The very design of TCI embodies these factors, as its model takes into account the evidence and learnings not only from URHI but also from the scale-up literature, described below.

Mindset Changes

Effective scale up depends on instilling a "shared mindset."[14] This is perhaps one of the first things projects and organizations should do to achieve scale. Having shared convictions reduces confusion, disagreements and inertia among team members, and it improves the chances of sustaining impact as a project's footprint expands. In the early stages of scaling, in particular, it is critical to have the right people on board who have a shared mindset.

The TCI mindset is summed up in its Business Unusual guiding principles. Key elements espoused to all TCI partners is that TCI is a learning consortium that uses different types of data and information to adapt its programming interventions and that local managers and implementers drive this process. Realizing this mindset requires constant engagement of its partners, especially in the early stages. What TCI has learned is that while city managers and implementers may have self-selected to participate in TCI, it can be easy to go back to business as usual since the status quo is typically an international NGO coming in and doing most of the work. As one department head in Rivers State Primary Health Care in Nigeria explained:

> **"** *While others may say that they are working with the government, they end up doing a lot of the work in isolation and just tell the government [what they have done] – more informational – and often when it's been done. TCI is more engaging, more inclusive in allowing government to be an integral part of planning – very important for the implementation. It's not just something that TCI says. It's what they do!*
>
> **– Dr. Mina Whyte**
> **Head, Research Unit/State Counterpart Program Manager**
> **Rivers State, Nigeria**

Several TCI stakeholders have pointed to the importance of shifting mindsets to getting the job done:

> 66 *Beginning with the end in mind, accomplishing some activities without funds.*
> **– Program Manager**
> **Uasin Gishu County, Kenya**

> 66 *My way of thinking has changed dramatically to issues regarding my work.*
> **– TCI Coachee**
> **Niger State, Nigeria**

Political Commitment

Another key feature of successful programs is political commitment. Political commitment strengthens the enabling environment and facilitates scale, or at a minimum eliminates barriers to scale up.[15] With political commitment comes development of operational and national policies, implementation of supportive programming environments and systems, and obligation of the necessary financial resources,[16] helping to set the stage for sustainability.[17] Political will has been proven to be integral to scaling up diverse public health interventions, such as adult male circumcision, family planning, breastfeeding for newborn health and healthy eating in schools.[18]

TCI aims to transform political will into local ownership and, as a result, local accountability whereby governments lead family planning efforts in their geography. This starts with TCI's demand-driven process whereby cities not only express their interest in joining TCI and sharing its Business Unusual mindset, but also commit their financial and human resources to scale up proven family planning interventions. TCI has made great strides in this realm. From September 2016 through July 2019, 125 cities have expressed interest in joining TCI, with 92 assessed by TCI as ready to implement its evidence-based approaches and now implementing. The total government contribution among these 92 implementing cities is more than US$66.4 million compared with $12 million in donor contributions as of July 2019.

Adama Seck, midwife-in-charge of reproductive health at Nioro's Health District in Senegal, explains the importance of political commitment to lifesaving TCI program activities:

> 66 *Out of 10 [maternal death] cases, almost 8 are women in their sixth or seventh pregnancy with advanced ages of 35 to 40 years. Thanks to the TCI project, we are now employing the ISBC [universal referral] approach, which is a strategy that effectively mitigates and reduces these cases of avoidable mortality. If not for the mayor's commitment, we would not be here. The commitment of the town hall and the Regional Chief Medical Officer is highly commended, because if not for their commitment, we would not have these value-added activities.*
>
> **– Adama Seck**
> **Midwife in charge of reproductive health**
> **Nioro, Senegal**

The regional hubs have employed different techniques for ensuring political and financial commitments. The most effective approaches include:

- Fostering competition between geographies in Nigeria through its performance-based tracker
- Building financial management and budget procedure/monitoring capacity in East Africa by engaging geographies in sub-awards with TCI
- Working with local governments to establish commercial bank accounts in Francophone West Africa and Kampala, Uganda, where funding committed by the local government and TCI funds are housed
- Advocating in Nigeria and Tanzania for the creation of a family planning budget line item outside of the reproductive health composite line item
- Including TCI proven interventions within government budgets and workplans in India and Nigeria
- Institutionalizing TCI proven interventions and tools within government strategies, guidelines and health worker job descriptions in Kenya, Senegal and India

One lesson learned in implementing TCI's demand-driven approach is that while local governments appreciate being engaged as leaders and experts in their specific contexts and family planning programs, they need simple, straightforward guidance to design data-driven and results-oriented family planning programs. TCI initially required local governments to develop proposals of what proven intervention from TCI-U they planned to implement, where and how. Proposal development is often an intimidating process even for experienced individuals or organizations.

TCI quickly learned that this is even more true when working with local government stakeholders who may not have any experience with proposal development. This tedious process took at least six months or more to complete, with the final proposals often lacking focus. TCI adapted its process as a result.

Now, once a city is assessed as ready to implement TCI programs, those selected are invited to design their programs instead of writing proposals, using a straightforward guidance template that ultimately results in the prioritization of three to five gaps that TCI proven interventions can help address. The program design stage now takes, on average, only two to three weeks to finalize compared with six months or more previously, so a greater number of cities are able to start focused implementation more rapidly.

Transformational Leadership

Strong leadership and management must accompany political will so that the desire for change is accompanied by the day-to-day execution of actions.[19] Leaders of change foster an environment of trust where visions are shared and collective action is valued. They encourage dialogue and cooperation and draw attention to the speed and pace of change. They develop leadership skills among team members to create ever-more change agents for scaling up the innovation, embracing the concept of distributed leadership because they recognize that large-scale change cannot happen with a small group of leaders.[20]

TCI is nurturing transformational leadership across local partners, from government officials to community and religious leaders. For example, our team in Nigeria has been working closely with religious leaders to help improve perceptions about family planning, thus promoting demand and influencing social norms. A well-respected religious leader of Bauchi, Nigeria, shared:

> " *Prior to the advent of TCI, CBS [child birth spacing] was a very sensitive and delicate issue to discuss … There were misconceptions on the part of the Islamic clerics. They normally interpret CBS as controlling population. But after our interaction with them using the Islamic Perspective and Sermon notes on child birth spacing [provided by TCI], a lot of them have now understood that spacing in between births benefits the health and wellbeing of the mother and child and is also promoted in the Holy Quran. … We are now preaching on CBS to our followers with confidence and based on evidence from the Holy Book and Hadith; now we are using every opportunity to educate more religious leaders on correct messaging of CBS based on Islamic perspective. … There is a wave of attitudinal change among the Islamic religious leaders. … Those Mallams who were against child birth spacing are now champions of CBS because the facts from the Holy Quran are very glaring. … It [CBS] is now almost freely discussed in the mosques, at learning centers and other gatherings.*

– Mallam Suleiman Usman
Muslim leader
Bauchi State, Nigeria

Inspired by TCI's 72-hour clinic makeover proven approach, a community member of the Ward Development Committee (WDC) from Kano, Nigeria, decided to construct a ward to address the overcrowding experienced at the local facility:

> " *When I saw the magnitude and quality of work TCI has done for my people and for the community in the shortest and cheapest way, I felt motivated and began to think of how I can do the same in the facility. I am a member of Jaen Community Committee for more than 25 years … but I have never seen something like TCI renovation. I was there when the Governor of Kano State commissioned the facility and I started thinking there and then what I could do. I saw the excitement in the faces of the facility staff and community people.*

– Alhaji Uba Danzainab
Community Member of the WDC
Kano State, Nigeria

20/80 Rule

TCI encourages its partners to apply the Pareto Principle when designing and implementing interventions to help focus and prioritize interventions that will achieve the majority of the results. The Pareto Principle states that 80% of effects are produced by 20% of the causes.[21] For example, 80% of sales are from 20% of customers, 80% of results are produced by 20% of employee time, and 80% of health uptake is produced by 20% of health facilities. Originally devised by Italian economist Vilfredo Pareto in 1906 to describe wealth inequality, it has since become a business maxim applied to many aspects with a cause-effect relationship, from time and project management to dieting to crime statistics.

TCI-supported cities are coached on the 20/80 Rule when designing programs – to select a limited number of proven family planning interventions in service delivery, demand generation and advocacy and right-size those interventions to address their cities' most significant gaps. In this way, 20% of their efforts will likely yield 80% of the desired outcome.

Although commonly called the 80/20 Rule, TCI refers to it as the 20/80 Rule to help cities focus implementation on the 20% of efforts that will generate 80% of the results. Local governments are discouraged from implementing full-scale, "kitchen sink" programs. Rather, they are coached to select a limited number of proven interventions that combine the critical elements of service delivery, demand generation and advocacy, and right-sizing those interventions to address the most significant gaps.

For example, one of the proven interventions that TCI cities can implement to improve access to and use of family planning is the 72-hour clinic makeover – a process whereby facilities are renovated, refurbished and equipped for optimal family planning service provision over a three-day weekend and in so doing restores the community's confidence in the facility and its services. This intervention, as originally designed and tested under the Nigerian Urban Reproductive Health Initiative (NURHI), included nine steps that were typically rolled out sequentially. The process often took four to six months to implement.

To rapidly scale up the proven approach in a sustainable manner, TCI identified critical components and simplified the steps in the process so that it now takes only four to five weeks to implement without compromising quality. Some of the adaptations included implementing a number of the steps in the process concurrently; batching facilities by proximity rather than governance area so that nearby sites can be renovated on the same day, thereby minimizing travel time and expenses; and engaging and leveraging existing state structures and personnel.

The original process, as implemented under NURHI, resulted in a 292% increase in family planning acceptors in one facility in Lagos state during the three months after the makeover compared with the three months prior to the makeover. The right-sized approach, as implemented under TCI, has also shown increases in family planning acceptors, ranging from 77% to 341% in three different facilities in Ogun and Delta states (see Figure 2). Moreover, the mental makeover or mindset change has been layered into the process through whole site orientation, where all facility staff – especially the health providers – are motivated and trained to respect clients and provide quality client-provider interaction.
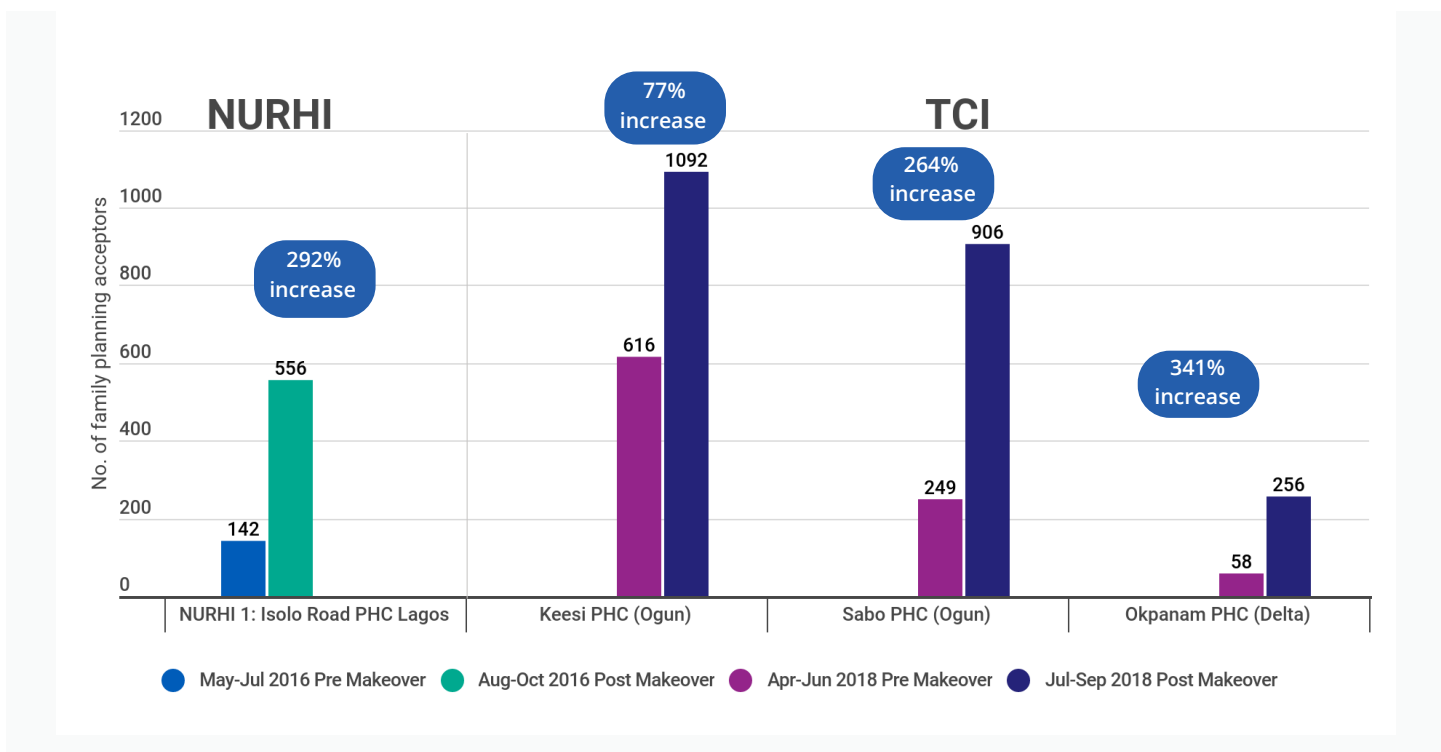

Figure 2. Impact of 72-Hour Clinic Makeover: NURHI vs. TCI (after efficiencies have been applied)

Diffusion of Innovations

Everett Roger's *Diffusion of Innovations* theory of how an innovation spreads[22] is harnessed by TCI to adapt its proven interventions to be simple, easily demonstrated, observable, compatible with and advantageous to TCI local governments. TCI applies the model's predictable pattern of innovation adoption to its own growth, understanding that the model may be slow to take off in the beginning but that early wins bolster accelerated interest until a tipping point is reached where backpedaling is difficult and the innovation has been accepted as the norm. Under this theory, the positive outcomes will inevitably diffuse the platform to non-TCI geographies, or new local governments will join the platform to become a truly demand-driven model.

TCI's experience in India demonstrates the Diffusion of Innovations in action. The Challenge Initiative for Healthy Cities (TCIHC), as branded in India, developed an innovative coaching approach – coined the "30-Hour Magic +" – to demonstrate to local officials that Fixed Day Static (FDS) services could be offered at urban primary health centers (UPHCs), including the provision of oral contraceptive pills, condoms, IUDs and referrals for female sterilization. After conducting a rapid assessment, TCIHC identified a few facilities to serve as demonstration sites to prove that, with some advance preparation, UPHCs could indeed provide quality family planning services. To make that preparation easy to digest, TCIHC organized the FDS intervention into a 30-hour period, or three 10-hour chunks (see Table 1). The "plus" factor refers to the increased confidence of facility staff, motivation of local government officials, and prioritization of family planning, which in turn inspired community confidence in respectful and quality care.

Table 1. The Challenge Initiative for Healthy Cities' 30-Hour Magic + Coaching Approach for Fixed Day Services

First 10 hours	Next 10 hours	Final 10 hours

• Inform the Chief Medical Officer, urban health officials, district quality assurance committee (DQAC) and UPHCs of the plans
• Issue FDS letter (by government) and circulate to all UPHCs
• Convene meetings with Accredited Social Health Activists (ASHAs) to inform them about their role in FDS
• Ensure trained manpower, contraceptive supplies and instruments are available by either procuring it from the state or pooling in from nearby UPHCs
	• Hold hands-on coaching session with ASHAs on:
	  » How to identify potential clients
	  » How to effectively counsel clients to make an informed choice and provide referrals to services
	  » How to make a 'due list' for FDS days
	• Publicize FDS in communities through ASHAs
	• Inform nearby facilities about FDS to accommodate referrals
		• Conduct coaching session on facility readiness
		• Facilitate the setup for registration and the counseling corner
		• Collect all client lists from ASHAs to help facility prepare for potential volume and review client flow
		• Facilitate DQAC visit to ensure all selected UPHCs are certified against quality parameters
		• Launch FDS day

Within only six months, TCIHC's 30-Hour Magic + approach had resulted in 80% of all UPHCs (405 of 503) in seven cities (Allahabad, Firozabad, Gorakhpur, Puri, Rourkela, Saharanpur and Varanasi) offering FDS, demonstrating how interventions can sometimes spread virally – almost on their own – when the interventions themselves are simple, demonstrable, observable, compatible with and advantageous to local communities. In fact, after seeing the results from the demonstration sites in just three cities (Rourkela, Puri and Berhampur) in Odisha, the state issued a notice to facilities across Odisha's 36 cities that all facilities should implement FDS with state funds. This notice reveals the government's commitment to the impact that this proven approach can have in 33 non-TCIHC supported cities and its use of near-time data for decision-making.

In Bauchi State, Nigeria, the 72-hour clinic makeover has become instrumental in the overhaul of the public healthcare sector. The approach provided Bauchi with a cost-effective way of renovating and equipping healthcare facilities, without interrupting service provision. Just a week after TCI helped Bauchi make over the Family Planning Units in five facilities, the State applied the approach to other sections of

three out of the five facilities on their own through the Nigerian State Health Investment Program (NSHIP). The NSHIP Project Coordinator in Bauchi explained:

> " *When TCI presented the approach to us, we told them we could adopt it. The concept reflected what we were trying to achieve with our project design which is about decentralization, giving ownership of the health facilities to the communities and addressing their issues with little resources but great impact.*
>
> **– Dr. Adamu Mohammed**
> **NSHIP Project Coordinator**
> **Bauchi State, Nigeria**

In addition, the state has budgeted to have 10 more facilities undergo the 72-hour clinic makeover with its own funds.

Adaptive Management in Complex Environments

The global health landscape is a complex one. Many stakeholders work in dynamic environments, each bringing their own perspective to the situation; cause-and-effect relationships are sometimes uncertain because several factors are at play at the same time; and the pace of change is unpredictable. In these systems, one can make informed guesses about what is likely to happen, but can't be sure.[23] To steer effectively in these types of contexts, programs must make use of adaptive management to adapt to evolving circumstances, new information and changing priorities. Adaptive management is not about changing goals during implementation but about changing the path used to achieve that goal in response to learning from changes.[24]

Failing fast, learning fast and improving fast – what TCI refers to as "thinkering" – are incorporated in all aspects of TCI, both in internal management and implementation in the field. To help monitor complex program impacts across the diverse regions where TCI is implemented, it uses a participatory monitoring, evaluation and adaptive management tool called the Most Significant Change technique in which local managers and implementers are interviewed about significant changes experienced as a result of TCI programming, followed by in-depth discussion and analysis about the value of the reported changes. In addition, TCI incorporated the Most Significant Change technique as part of its quarterly pause-and-reflect sessions and annual mid-course review meetings among the regional hubs and headquarters staff to regularly assess the model and better target and calibrate the support that each level provides.

Broad questions are used to collect Most Significant Change stories to ensure intangible and unexpected outcomes are not overlooked and to allow for different perspectives from TCI's diverse partners. Program managers at state, county and municipality levels have said that start-up is often slow because of the nature of working within government bureaucracies and the need to bring everyone on board. As a result, there is a need for TCI regional hub coaches to be in constant communication with their government counterparts as well as have a firm understanding of the peculiarities of their specific context and its health system.

For example, this led both the Nigeria and East Africa hubs to reorganize themselves to ensure they have coaches within states, counties and municipalities instead of relying solely on a "roving" coaching model based in the capital city. In addition, TCI now provides earlier coaching sessions related to TCI-U to expose stakeholders to the proven interventions from the very beginning, assists program managers with reviewing existing data to identify gaps and interventions to focus on instead of relying on the government counterpart to bring and/or interpret the data themselves, works with government counterparts to coordinate all family planning partners to develop city- and state-wide family planning workplans and helps with budgeting for the selected proven interventions instead of assuming financial management capacity already exists within the city.

SUSTAINABLE SCALE-UP MARKERS

TCI employs a mixed-methods approach using both quantitative and qualitative data to systematically capture, analyze and share its results and learnings. While the overarching purpose of the TCI platform is to rapidly meet women's and couples' unmet need for modern contraception, it aims to affect changes in the health system along the way to ensure the results are sustainable, even after TCI involvement in a particular city diminishes and eventually ends. Therefore, in addition to measuring scale-up in the traditional sense of number of cities and population reached, TCI has identified four key pillars to measure its progress toward sustainable scale-up of high-quality family planning programming and outcomes, based on the key components of the TCI model and the underlying theoretical constructs discussed earlier (see Figure 3). The four sustainable scale-up pillars are:

- Increased political and financial commitment
- Capacity strengthening
- Institutionalization of TCI proven interventions
- Sustained demand

These four pillars can serve as early indicators that the results, interventions and new ways of thinking will have lasting impact.

Local Goverment Self-Reliance

INCREASED POLITICAL & FINANCIAL COMMITMENT

Illustrative Indicators
- FP/AYSRH funds are committed and budgeted by TCI local governments
- Local budget allocations for FP/AYSRH are spent by host cities
- High-level government officials and other influential leaders make public statements

CAPACITY STRENGTHENING (KNOWLEDGE & SKILLS)

Illustrative Indicators
- Host city stakeholders own, design and implement programs where supply, demand and advocacy reinforce each other
- Host city stakeholders use data for programmatic decision-making

INSTITUTIONALIZATION OF TCI PROVEN APPROACHES

Illustrative Indicators
- TCI proven approaches are incorporated into host city's policies, work plans, national guidelines and standards
- Proven programmatic approaches are implemented according to quality standards
- Spontaneous diffusion and uptake of TCI proven approaches occurs (viral effect)

SUSTAINED DEMAND

Illustrative Indicators
- Improved method mix
- Women (and men) report favorable community attitudes towards contraception
- Women (and men) personally advocate for FP among their family and in their communities
- Women (and men) refer relative/friends to facility for FP
- Women (and men) intend to use FP in next 12 months
- Communities holds health system and facilities accountable

PILLAR 1   PILLAR 2   PILLAR 3   PILLAR 4

Figure 3: TCI's Sustainable Scale-up Pillars.

Pillar 1. Increased Political and Financial Commitment

Measuring the multidimensional nature of political commitment is no easy task and cannot be effectively captured through one single quantitative indicator. The level of budgeting and spending on an intervention is usually considered a good indicator of political commitment since it requires action by both the executive and legislative branches of government – implying commitment of funds as well as establishment of enabling policies to support programming. Thus, TCI's first indicator in this pillar is related to funds for family planning and AYSRH being committed and budgeted by local governments. But it is not enough for the funds to be budgeted – they must also be spent. The second indicator, therefore, is to ensure budget allocations are actually spent.

Besides investigating spending, another common approach used to measure political commitment is to examine the statements of leaders, as an indication of the positive (or negative) climate that encourages (or discourages) solutions.[25] Statements may be delivered in public speeches or appear in written form in official communications or documents. Programs typically focus on statements of high-level government officials, but measurement may also extend to other types of leaders with authority, such as community and religious leaders.[26] TCI therefore tracks public statements in support of family planning and AYSRH to round out the political and financial commitment pillar. For example, TCIHC recently supported the state governments of Uttar Pradesh (UP) and Madyha Pradesh (MP) to host state-level urban family planning conclaves. At the end of these meetings, both state governments officially endorsed nine TCIHC proven interventions.

TCI expects improvements in these indicators to eventually impact the longer term goal of improving local governments' financial independence from donors and prioritizing family planning as an important domestic issue that merits investment of local funds. One indicator of this shift is an increased percentage of a local government's family planning budget being financed by host country sources. For example, in Iganga District in Uganda, 2018 saw the largest increase in family planning funding among all TCI geographies in East Africa. Iganga increased their family planning commitment by more than 500%, from $9,000 in Year 1 of TCI to $55,000 in Year 2. Their political leaders are owning the family planning program and closely monitoring the utilization of funds. The Iganga District nursing officer shared:

> " *Nowadays, our political leaders are interested in knowing how much of the geography [local government's] money we are spending in family planning. They ask about how much TCI has put on the table. Before TCI came on board, our leaders were not asking such accountability-related questions because no money was committed for family planning.*
>
> **– Joy Kisira**
> **District Nursing Officer**
> **Iganga District, Uganda**

Pillar 2. Capacity Strengthening

Capacity in global health – the ability to carry out stated health systems objectives – is believed to contribute directly to improved performance in global health and to play an important role in sustaining adequate performance over time.[27] Capacity strengthening is the process that improves the ability of a person, group, organization or system to meet its objectives or perform better. TCI aims to strengthen capacity at the systems, organizational and individual levels.

For example, at the **systems** level TCI works to improve coordination among key individual and organizational stakeholders, in particular to ensure quality design of holistic programs that address the critical elements of service delivery, demand generation and advocacy together. In fact, TCI often brings key players together for the first time.

At the **organizational** level, TCI aims to improve key processes and structures that support high-quality family planning programming, for example, improvements in *using* data for decision-making. Although TCI does not make large investments to overhaul countries' HMIS, it does focus heavily on using the available data – from the HMIS as well as project records, service delivery point assessments, client exit interviews, household surveys and Most Significant Change stories – at regular intervals to iteratively adjust the program strategy and implementation and management of that strategy.

At the **individual** level, TCI employs a mix of methods – such as on-the-job coaching of local managers and implementers by the regional hubs, self-directed learning through TCI-U, peer-to-peer mentoring

through its communities of practice, and South-to-South exchange between the hubs and implementing geographies – to ensure learning is integrated and reinforced over time.

Because capacity strengthening is a multidimensional and dynamic process, influenced by many factors including different approaches and strategies used to strengthen capacity as well as external environmental factors, indicators to measure the effects of capacity strengthening and the measurement tools employed in global health programs vary widely.[28] Many measurement tools use self-assessment techniques, which can lead to greater ownership of the results and greater likelihood of improving capacity. However, such measurements usually focus on perceptions of capacity and thus may be of limited reliability.[29] Using multiple sources of data may help capture the more complex and dynamic capacity changes that occur within systems, organizations and individuals.

For this reason, TCI employs both quantitative and qualitative data to measure capacity strengthening efforts in two key areas: (1) ownership, design and implementation by geographies of programs that combine service delivery, demand generation and advocacy, and (2) using data for decision-making. We also use multiple instruments to measure capacity, including self-assessment tools, surveys, the Most Significant Change technique and other qualitative methods.

TCI uses a key comprehensive tool to support and measure the impact of capacity strengthening efforts via coaching on city system-level changes. The tool, called the **Quality & Sustainability Assessment (QSA) Tool: A guide for assessing implementation of proven high-impact reproductive health solutions**, was developed by TCI with feedback from local governments in East Africa and has been rolled out across all 41 TCI geographies in East Africa. It will be adapted and rolled out to all TCI-supported geographies by 2020. Local governments complete the QSA tool quarterly, with the aim of institutionalizing its use for ongoing adaptive management. To enhance objectivity, local government implementers first individually score city work against each of TCI's sustainability domains, which includes transfer of capacity related to TCI proven interventions and the use of data for decision-making, based on QSA criteria and on evidence available to them. Then, during a facilitated workshop, the group comes to consensus through review of scores and corresponding evidence – TCI also provides its assessment and works with the local government to discuss relevant evidence and reach consensus on the final score. QSA results help cities define next steps, responsibilities, time frames and possible technical assistance needs, and enable TCI hubs to plan coaching. Within a few quarters, local governments assume responsibility from TCI for ongoing coordination of the QSA quarterly meeting and process. The QSA tool's staged, participatory self-assessment approach, although focused on the health sector and more oriented to ongoing adaptive management, is similar to Pact's validated Government Performance Index.[30]

A program manager from Ogun State Primary Health Care Development Board in Nigeria reported in a Most Significant Change story the impact of TCI's capacity strengthening efforts in designing holistic and coordinated family planning programming:

> 66 *Prior to TCI intervention in Ogun State, coordination was done in silos. Demand generation was very low, the impact of advocacy was not felt, and we had a lot of misconceptions in the community that nobody could demystify. What we were doing before was just a little bit of supplies of commodities. However, with TCI's holistic approach in terms of service delivery, the coordination, demand generation and everything has been helpful. Now when you are looking at the service delivery, you are also looking at demand generation; you are looking at what the data is saying; advocacy, what the people are saying and how to get people to uptake family planning in the state. The holistic approach of TCI really changed things!*
>
> **– Program Manager**
> **Primary Health Care Development Board**
> **Ogun State, Nigeria**

TCI has also developed a self-assessment tool for TCI regional hubs and local managers and implementers to use together at repeated times over the course of implementation to specifically assess capacity of data use for decision-making across three key domains: data reporting; data review and interpretation; and data-informed decisions. The self-assessment tool is meant to be used as an initial assessment tool, ideally at the program design stage, to determine strengths and weaknesses; as a planning tool to decide which areas to focus coaching efforts on; and as an ongoing monitoring tool to assess capacity building as a result of coaching efforts.

Early indications show that data use for decision-making is gaining traction in TCI-supported cities. For example, in Taraba State, Nigeria, facilities reporting requisition data for family planning in the commodity consumption database has steadily increased, from 0% in March/April 2018 and 5% in May/June to 83% in July/August and 100% in September/October. This progress has been attributed to TCI's support in training monitoring and evaluation and health information officers on the District Health Information Software 2 (DHIS 2).

During a state-level review meeting in Odisha, India, where all Chief Medical Officers (CMOs) gather, family planning uptake data from the FDS conducted in the three TCIHC-supported cities was shared. Upon hearing these impressive results, the government of Odisha issued a letter to scale up the approach to all 36 cities in the state.

In India, TCIHC's project management information system (PMIS) has complemented the HMIS by capturing complete and accurate family planning uptake data for each UPHC and family planning commodity distribution at outreach camps and Urban Health and Nutrition Days. Information from pause-and-reflect sessions suggests these efforts have proved to be a game-changer – by sharing the data regularly from the PMIS with government counterparts and showing discrepancies between the PMIS and HMIS, government stakeholders are now demanding more timely data reports and promoting a culture of data for decision-making from city to state level.

Pillar 3. Institutionalization

Institutionalization is the integration of a program or intervention within an organization and is considered an important indicator of long-term sustainability.[31] Sometimes referred to as "vertical" scale-up,[32] institutionalization under the TCI context ensures that implementation of evidence-based family planning interventions and the TCI guiding principles becomes the new norm in all sub-systems of the health system, including policies and procedures, human resources, financial and managerial.

For example, institutionalization of FDS requires processes to be laid out in manuals, staff appointed to deliver the services, permanent finances dedicated to the intervention and monitoring and evaluation systems in place. The CMO from Kanpur in India explains how sustainability of FDS is a function of integrating the intervention at the systems level:

> " *When we find out that something good and workable produces results quickly, we take it into the system – which is what we have done in the case of FDS. This is now part of the UPHC Charter and going to sustain forever. The system works, not individuals. So when something is introduced or added into the system, no one needs to worry about its sustainability. This is not only going to sustain but evolve further as we bring new contraceptives to these facilities as well.*
>
> **– Chief Medical Officer
> Kanpur, India**

To measure institutionalization, TCI considers three main indicators:

• **TCI proven interventions are incorporated into host cities' policies, workplans, national**

guidelines and standards, which helps to support an enabling environment for sustainability of evidence-based programming. In the example of FDS services in India mentioned above, TCIHC worked with their government counterparts to station auxiliary nurse-midwives (ANMs) at UPHCs on FDS days to ease the patient load on the staff nurse. This change eventually led to incorporation of this duty into the ANMs' official job description, helping to ensure sustainability of the staffing structure. In Senegal, tools created under TCI to facilitate the universal referral approach have been adopted nationally.

- **Proven interventions are implemented according to quality standards**. As a result of TCI's coaching and training of service providers at UPHCs in Odisha, India, 13 of 16 TCI-supported UPHCs received national government recognition for meeting quality standards in delivering high-quality family planning services. This is more than double the number that were recognized and awarded last year for meeting government quality standards.

- **Spontaneous diffusion and uptake of proven interventions**, suggesting that the tipping point in the innovation adoption curve has been reached and the proven interventions have been accepted as the norm. For example, after demonstrating the success of FDS in improving access to and use of family planning, including long-acting reversible contraceptives, in Saharanpur, a city in Uttar Pradesh, India, the family planning Nodal Officer declared Thursday as Family Planning Day in both urban *and* rural areas. In addition, TCIHC recently supported the government to host state-level urban family planning conclaves which serve as a platform for sharing and learning. During these day-long meetings, the state governments of both UP and MP officially endorsed nine of TCIHC proven interventions. This means TCIHC's interventions will now be used in all cities throughout both states – an additional 55 non-TCI cities in UP and an additional 39 cities in MP – for a total of 75 UP cities and 47 MP cities.

> " *Family planning was the last thing on anyone's mind at our UPHC. However, after observing and participating in the special FDS drive in 2018 facilitated by TCIHC, I saw people coming in for family planning services. From that day onwards, we regularly conduct FDS. And from August 2018 onwards, we are conducting FDS without the support of the TCIHC team.*
>
> **- Urban Health Coordinator**
> **Saharanpur, India**

Over the long-term, TCI will track improvements in method availability in the health system – both in terms of the range of methods available and stock availability of the method in the facility. Evidence shows that availability of more methods increases method choice and contraceptive use.[33] In particular, making one additional method available to at least half the population correlates with an increase of 4 to 8 percentage points in total use of modern methods.[34] This also implies a significant effect of stock-outs on contraceptive use to the extent that stock-outs are equivalent to a lack of availability of that method.[35]

Pillar 4. Sustained Demand

Total demand for modern contraception is the sum of women currently using modern contraception (i.e., the modern contraceptive prevalence rate) and of those who don't want any more children or who want to postpone having their next child but are not currently using a modern method (i.e., unmet need for modern family planning). Taken together, demand for modern contraception provides an indication of modern contraceptive use in a population plus an important segment of the population that likely has favorable attitudes toward family planning and for whom family planning programs need to reach with services. Persistence of demand for modern methods, therefore, represents that acceptability and use of modern methods has become normalized in the local culture and will likely lead to increases in modern contraceptive method uptake.

TCI uses four key indicators as proxies for sustained demand for modern methods, based on theories

of how individuals and societies adopt new ways of thinking or new behaviors such as the Stages of Change theory and ideational theory.[36] Ideational theory, for example, posits that people are more likely to adopt new behaviors when they have gained sufficient knowledge about it, have positive attitudes about it, think others support it, have talked to others about it and feel good about doing it. Stages of Change theory indicates people move through different stages when adopting new behaviors, from being unaware of the behavior to awareness and intending to take action to action. The indicators TCI has selected, therefore, take these different theories into account. These indicators comprise:

- **Women and men report favorable community attitudes toward contraception**, suggesting growing social acceptance of family planning. When individuals perceive support for family planning in their community, they are more likely to adopt family planning themselves.[37]

- **Women and men personally advocate for family planning among their family members and in their community**, suggesting they do not fear negative backlash, and thus this indicator also serves as a proxy for positive community norms about family planning.

- **Women and men refer friends/family to the facility for family planning**, indicating not only their support for family planning, which helps change social norms around family planning, but also their perceptions that the facility provides quality services.

- **Women and men intend to use family planning in the next 12 months**, which is an important stage in the innovation-adoption process. Indeed, in an analysis of data from 27 Demographic and Health Surveys conducted between 1993 and 1996, for each 1% increase in intention to use contraception, there was nearly a 1% rise in contraceptive adoption.[38]

TCI's monitoring and evaluation approach employs multiple data sources to obtain data for these indicators. Some TCI cities are covered by PMA Agile, providing near-continuous tracking of performance and progress at the local health facility and client levels. In cities where PMA Agile is not available, TCI implements local tracking surveys to track performance at the health facility and client levels.

In addition, given the importance of near- to real-time data as well as sustainability, TCI uses the countries' HMIS - an institutionalized and thus more sustainable source of health service delivery data in most countries that includes data for family planning. This information is triangulated with the Most Significant Change stories to provide rich accounts of TCI's impact on sustained demand.

> ❝ *My mindset has changed and I am now a family planning champion in my community. I share my story as a learning experience for the youth in Buikwe District. I hope that the youth and young couples can learn from my story [of fathering 30+ children] and make better decisions by adopting family planning to offer their children quality life. I intend to go for vasectomy soon.*
>
> **– A community mobilizer from Buikwe, Uganda, who works with TCI and is now a personal advocate for family planning.**

> ❝ *My life changed since the day I was visited by the mobilizers in my community who sensitized me on family planning. Since then, I can testify that the method is good in my body; everything in my body is functioning well, and I am looking very young and smart. I am very happy with this free family planning method and now encourage my friends and other women out there to go for family planning.*
>
> **– A trader from Agbarho town in Delta State, Nigeria who previously was afraid of family planning side effects.**

CONCLUSION

With TCI's support, local governments from 92 cities – 160 if all 78 TCI-supported local government authorities of the 10 Nigerian states are counted individually instead of by state – across India, East Africa, Francophone West Africa and Nigeria are implementing and adapting proven family planning and AYSRH interventions while at the same time better using their own resources to do so. Local government commitments to program delivery amount to more than $66.4 million, while other donors have contributed $12 million to TCI.

TCI is tracking results related to both health impact and sustainability. Service delivery data in most TCI sites are showing positive increases in contraceptive uptake, especially long-acting methods, as women and couples are empowered and enabled to decide freely whether, when and how many children to have. As of August 2019, TCI has contributed to a 42% increase in annual family planning client volume across 85 reporting cities compared to a baseline, which translates to about 562,000 more clients, according to data from country health management information systems.
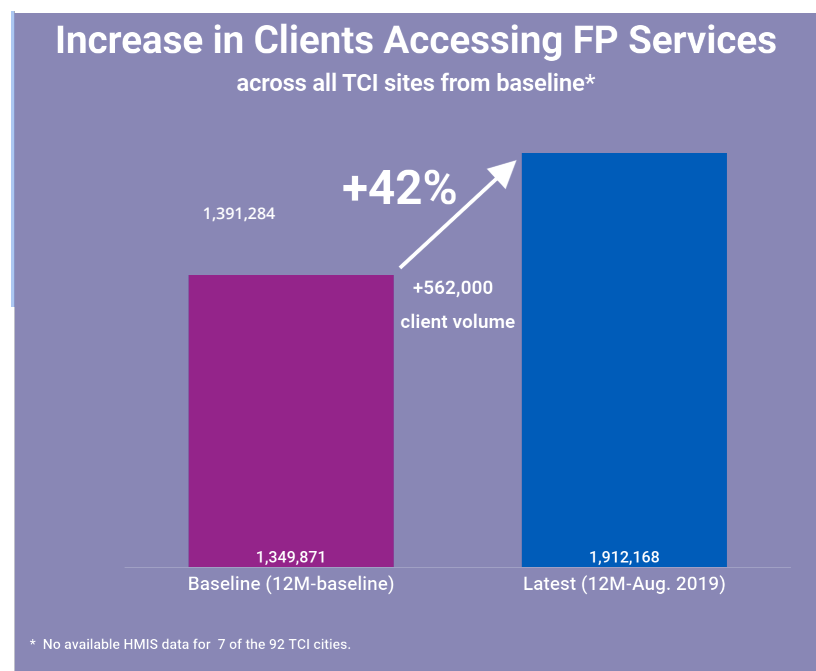

Increase in Clients Accessing FP Services
across all TCI sites from baseline*

1,391,284

+42%

+562,000 client volume

1,349,871
Baseline (12M-baseline)

1,912,168
Latest (12M-Aug. 2019)

* No available HMIS data for 7 of the 92 TCI cities.

Figure 4: Overall Increasing Contraceptive Uptake Trends across all TCI Hubs. (Source: HMIS)

TCI has also seen a continued increase in client volume growth within its 85 reporting cities over a six-month period from March 2019 - August 2019. In March 2019, the 12-month client volume increased 29% when compared to the 12-month until baseline. This growth has increased steadily in succeeding months, culminating in the 42% at the end of August 2019 (see Figure 5, page 21).
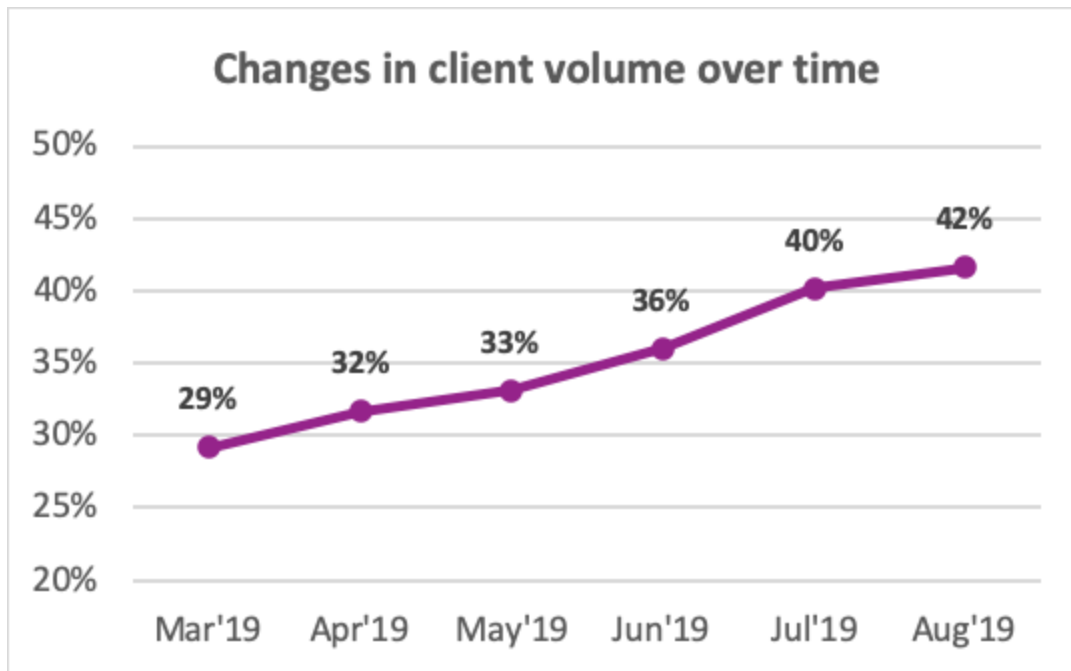
Changes in client volume over time

Figure 5: Growth in client volume at TCI-supported facilities relative to baseline, updated over time (Source: HMIS).

Nearly 1,200 coaches have been trained to implement TCI's high-impact family planning interventions through virtual and in-person TCI-U mentorship activities as of end of December 2019.

Rapid scale-up and sustainability can sometimes seem at odds with each other. However, TCI has shown that by facilitating local governments' ability to implement interventions that work, the local health system can effectively be activated and leveraged to provide quality family planning services. There are, and will continue to be, broader societal and systems challenges that TCI cannot "fix" quickly, including those related to complex administrative systems (Uganda), healthcare worker strikes (Kenya and Francophone West Africa), upcoming and/or recent political elections and the uncertainty that they bring (Nigeria and India) and national supply chain management issues (Nigeria and Kenya). TCI has found ways to make in-roads even within these challenging environments because it works with local governments that want to make a difference in the lives of women and men in their communities.

TCI's design enables cities to deliver on sustainability, cost-efficiency, impact and scale. The platform delivers on all four of these interlocking tenets – understanding that one without the other three is inadequate to achieve enduring progress.

Appendix A

TCI's Sustainability Indicators

Impact intended	Illustrative indicator	Data source	Frequency
SUSTAINABILITY INDICATORS			
Increased local ownership (i.e., increased political & financial commitment)	FP/AYSRH funds are committed and budgeted by TCI local governments	TCI Dashboard	Annually
	Local budget allocations for FP/AYSRH are spent by host geographies	TCI Dashboard	Quarterly
	High-level government officials and other influentials leaders make public statements	Hub project records	Quarterly
Capacity transfer	Host geography stakeholders own, design and implement programs where supply, demand and advocacy reinforce each other	Approved program design (annually); Regularly monitored geography-led workplan (quarterly); Online surveys & in-depth interviews with TCI-U users (annually); Geography self-assessment (quarterly/bi-annually)	*Depends on data source
	Host geography stakeholders use data for programmatic decision-making	Most significant change (MSC) stories (quarterly); Geography self-assessment (quarterly/bi-annually)	*Depends on data source
Institutionalization and systems strengthening	TCI proven approaches are incorporated into host geography's policies, workplans, national guidelines and standards	MSC stories; Pause & reflect sessions	Quarterly
	Proven programmatic approaches are implemented according to quality standards	Hub project records; List of government-certified facilities	Quarterly
	Spontaneous diffusion and uptake of TCI proven approaches occurs (viral effect)	MSC stories; Pause & reflect sessions	Quarterly
IMPACT INDICATORS			
Increased uptake	# of FP clients, by method	HMIS	Monthly
	% of women who currently use modern contraception, by method	Local tracking survey	Annually

Impact intended	Illustrative indicator	Data source	Frequency
Sustained demand	% of women who report favorable community attitudes toward contraception	Local tracking survey	Annually
	% of women who personally advocate for FP among their family and in their communities	Local tracking survey	Annually
	% of women who intend to use any modern method in the next 12 months	Local tracking survey	Annually
Increased quality and equity	% of women using modern methods who would refer relative/ friend to facility	Local tracking survey	Annually

Endnotes

1   Case 6: Saving mothers' lives in Sri Lanka. Center for Global Development website.

2   Maternal mortality ratio (modeled estimate, per 100,000 live births). World Bank DataBank website. https://data.worldbank.org/indicator/SH.STA.MMRT?view=chart. Accessed April 2, 2019.

3   Center for Global Development. What's worked? Accounting for success in global health. World Health Organization website. https://www.who.int/rpc/meetings/First_chapter_and_overview.pdf. Accessed April 2, 2019.

4   Ibid.

5   Milat AJ, King L, Newson R, et al. Increasing the scale and adoption of population health interventions: experiences and perspectives of policy makers, practitioners, and researchers. *Health Res Policy Syst*. 2014;12:18. https://doi.org/10.1186/1478-4505-12-18

6   USAID's Center for Accelerating Innovation and Impact (CII). *Idea to Impact: A Guide to Introduction and Scale of Global Health Innovations*. Washington, DC: CII; 2015. https://www.usaid.gov/sites/default/files/documents/1864/Idea-to-Impact_Jan-2015-508_0.pdf. Accessed April 2, 2019.

7   Coussa G. To impact millions, the social sector needs to scale scaling up. *Stanford Social Innovation Review.* January 24, 2019. https://ssir.org/articles/entry/to_impact_millions_the_social_sector_needs_to_scale_scaling_up#. Accessed April 2, 2019.

8   Adamou B, Curran J, Wilson L, et al. *Guide for Monitoring Scale-Up of Health Practices and Interventions*. Measure Evaluation; 2013. https://www.measureevaluation.org/resources/publications/ms13-64. Accessed April 2, 2019.

9   Florida R. 11 reasons the UN should make cities the focus of its forthcoming Sustainable Development Goals. CITYLAB website. April 17, 2014. https://www.citylab.com/life/2014/04/11-reasons-un-should-make-cities-focus-its-new-sustainable-development-goals/8896/. Accessed April 2, 2019; Lechtenberg S. If mayors ruled the world (ep. 162). Freakonomics podcast. April 10, 2014. http://freakonomics.com/podcast/if-mayors-ruled-the-world-a-new-freakonomics-radio-podcast/. Accessed April 2, 2019.

10 USAID's Center for Accelerating Innovation and Impact (CII). *Idea to Impact: A Guide to Introduction and Scale of Global Health Innovations*. Washington, DC: CII; 2015. https://www.usaid.gov/sites/default/files/documents/1864/Idea-to-Impact_Jan-2015-508_0.pdf. Accessed April 2, 2019.

11 Cooley L, Kohl R. Scaling up: from vision to large-scale change. A management framework for practitioners. Management Systems International; 2012. http://msiworldwidewjzvccptpx.devcloud.acquia-sites.com/sites/default/files/additional-resources/2018-11/ScalingUp_3rdEdition.pdf. Accessed April 2, 2019.

12 Chee G, Pielemeier N, Lion A, Connor C. Why differentiating between health system support and health system strengthening is needed. *Int J Health Plann Manage*. 2013;28:85-94. https://doi.org/10.1002/hpm.2122

13 Yamey G. Scaling up global health interventions: a proposed framework for success. *PLoS Med*. 2011;8(6):e1001049. https://doi.org/10.1371/journal.pmed.1001049; MSI (2012) Scaling Up: From Vision to Large-Scale Change. Tools and Techniques for Practitioners. Management Systems International; 2012. https://www.k4health.org/toolkits/research-utilization/scaling-vision-large-scale-change-tools-and-techniques-practitioners. Accessed April 2, 2019; Hartmann A, Linn JF. *Scaling Up: A Framework and Lessons for Development Effectiveness from Literature and Practice*. Washington, DC: Brookings Global Economy and Development; 2008. https://www.brookings.edu/wp-content/uploads/2016/06/10_scaling_up_aid_linn.pdf. Accessed April 2, 2019.

14 Sutton RI, Rao H. *Scaling Up Excellence; Getting to More Without Settling for Less*. New York: Crown Business; 2014.

15 Cooley L, Kohl R. Scaling up: from vision to large-scale change. A management framework for practitioners. Management Systems International; 2012. http://msiworldwidewjzvccptpx.devcloud.acquia-sites.com/sites/default/files/additional-resources/2018-11/ScalingUp_3rdEdition.pdf. Accessed April 2, 2019.

16 The POLICY Project. *HIV/AIDS Toolkit: Building Political Commitment*. Washington, DC: Policy Project, Futures Group International; 2000. http://www.policyproject.com/pubs/bookorange.pdf. Accessed April 2, 2019.

17   World Health Organization (WHO) and ExpandNet. *Nine Steps for Developing a Scaling-Up Strategy*. Geneva: WHO; 2010. https://www.who.int/immunization/hpv/deliver/nine_steps_for_developing_a_scalingup_strategy_who_2010.pdf. Accessed April 2, 2019; High-Impact Practices (HIPs). Galvanizing commitment: creating a supportive environment for family planning. Washington, DC: USAID; 2015. https://www.fphighimpactpractices.org/briefs/galvanizing-commitment/. Accessed April 2, 2019.

18   Milat AJ, King L, Newson R, et al. Increasing the scale and adoption of population health interventions: experiences and perspectives of policy makers, practitioners, and researchers. *Health Res Policy Syst*. 2014;12:18. https://doi.org/10.1186/1478-4505-12-18; Yamey G. Scaling up global health interventions: a proposed framework for success. *PLOS Med*. 2011;8:e1001049. https://doi.org/10.1371/journal.pmed.1001049; Hanson K, Cleary S, Schneider H, Tantivess S, Gilson L. Scaling up health policies and services in low- and middle-income settings. *BMC Health Serv Res*. 2010;10(suppl 1):l1. https://doi.org/10.1186/1472-6963-10-S1-I1; Barker PM, Reid A, Schall MW. A framework for scaling up health interventions: lessons from large-scale improvement initiatives in Africa. *Implement Sci*. 2016;12. https://doi.org/10.1186/s13012-016-0374-x; USAID/Africa Bureau, USAID/Population and Reproductive Health, Ethiopia Federal Ministry of Health, Malawi Ministry of Health, and Rwanda Ministry of Health. *Three Successful Sub-Saharan Africa Family Planning Programs: Lessons for Meeting the MDGs*. Washington, DC: USAID Africa Bureau; 2012. https://www.fhi360.org/sites/default/files/media/documents/africa-bureau-case-study-report.pdf. Accessed April 2, 2019.

19   Massoud MR, Donohue KL, McCannon CJ. Options for large-scale spread of simple, high-impact interventions. USAID Health Care Improvement Project, University Research Co., LLC; 2010. https://www.salzburgglobal.org/fileadmin/user_upload/Documents/2010-2019/2012/489/Session_Document_HighImpactInterventions_489.pdf. Accessed April 2, 2019.; Yamey G. Scaling up global health interventions: a proposed framework for success. *PLOS Med*. 2011;8:e1001049; World Health Organization (WHO). Guide to Fostering Change to Scale Up Effective Health Services. Geneva: WHO; 2013. https://www.who.int/reproductivehealth/publications/health_systems/guide-fostering-change/en/. Accessed April 2, 2019.; Mangham LJ, Hanson K. Scaling up in international health: what are the key issues? *Health Policy Plan*. 2010;25:85-96; McCannon C, Berwick DM, Massoud MR. The science of large-scale change in global health. *JAMA*. 2007;298(16):1937-1939.

20   Sustainable Improvement Team and the Horizons Team. *Leading Large Scale Change: A Practical Guide*. Leeds, England; NHS England; 2018. https://www.england.nhs.uk/wp-content/uploads/2017/09/practical-guide-large-scale-change-april-2018-smll.pdf. Accessed April 2, 2019.

21   Lavinsky D. Pareto Principle: how to use it to dramatically grow your business. *Forbes*. January 20, 2014. https://www.forbes.com/sites/davelavinsky/2014/01/20/pareto-principle-how-to-use-it-to-dramatically-grow-your-business/#244fc2dc3901. Accessed April 2, 2019.

22   Rogers E. *Diffusion of Innovations*. 5th ed. Free Press; 2003

23   Dignan A. Changing organizational mindset. *Stanford Social Innovation Review*. March 18, 2019. https://ssir.org/articles/entry/changing_organizational_mindset. Accessed April 2, 2019.

24   U.S. Agency for International Development (USAID). Discussion note: adaptive management. Washington, DC: USAID; 2018. https://usaidlearninglab.org/library/discussion-note-adaptive-management. Accessed April 2, 2019.

25   The POLICY Project. *HIV/AIDS Toolkit: Building Political Commitment*. Washington, DC: Policy Project, Futures Group International; 2000. http://www.policyproject.com/pubs/bookorange.pdf. Accessed April 2, 2019.

26   Bertrand JT, Magnani RJ, Rutenberg N. *Handbook of Indicators for Family Planning Program Evaluation*. The Evaluation Project; 1994. https://www.measureevaluation.org/resources/publications/ms-94-01. Accessed April 2, 2019.

27   LaFond A, Brown L. A guide to monitoring and evaluation of capacity-building interventions in the health sector in developing countries. Chapel Hill, NC: MEASURE Evaluation, Carolina Population Center, University of North Carolina; 2003. https://www.measureevaluation.org/resources/publications/ms-03-07. Accessed April 2, 2019.

28   Ibid.

29   Ibid.

30   Pact. Reliability Study of Pact's Government Performance Index (GPI). Washington, DC: Pact; February 2018. https://www.pactworld.org/library/government-performance-index-reliability-study. Accessed April 2, 2019.

31   Zakumumpa H. Assessing the level of institutionalization of donor-funded anti-retroviral therapy (ART) programs in health facilities in Uganda: implications for program sustainability. *Glob Health Action*. 2018;11(1); Goodman RM, McLeroy KR, Steckler AB, Hoyle RH. Development of level of institutionalization scales for health promotion programs. *Health Educ Behav*. 1993;20(2):161-178: Dintrans PV, Bossert TJ. Institionalization and sustainability of donor-funded quality assurance initiatives: the case of Honduras. University Research Co., LLC; 2017. https://www.usaidassist.org/sites/assist/files/honduras_qa_institutionalization_study_nov2017_ada.pdf. Accessed April 2, 2019.

32   World Health Organization (WHO) and ExpandNet. *Nine Steps for Developing a Scaling-Up Strategy*. Geneva: WHO; 2010. https://www.who.int/immunization/hpv/deliver/nine_steps_for_developing_a_scalingup_strategy_who_2010.pdf. Accessed April 2, 2019; Adamou B, Curran J, Wilson L, et al. *Guide for Monitoring Scale-Up of Health Practices and Interventions*. Measure Evaluation; 2013. https://www.measureevaluation.org/resources/publications/ms13-64. Accessed April 2, 2019.

33   Ross J, Keesbury J, Hardee K. Trends in the contraceptive method mix in low- and middle-income countries: analysis using a new "average deivation" measure. *Glob Health Sci Pract*. 2015;3(1):34-55.

34   Ross J, Stover J. Use of modern contraception increases when more methods become available: analysis of evidence from 1982–2009. *Glob Health Sci Pract.* 2013;1:203-212.

35   Ibid.

36   Prochaska JO, Velicer WF. The transtheoretical model of health behavior change. *Am J Health Promotion*. 1997;12(1):38-48; Health Communication Capacity Collaborative (HC3). *Ideation: An HC3 Research Primer*. Baltimore, MD: HC3, Johns Hopkins Center for Communication Programs; 2015. http://www.healthcommcapacity.org/wp-content/uploads/2015/02/Ideation.pdf. Accessed April 2, 2019.

37   Cislaghi B. Theory and practice of social norms interventions: eight common pitfalls. *Glob Health*. 2018;14:11.

38   Ross J, Winfrey W. Contraceptive use, intention to use and unmet need during the extended postpartum period. *Int Fam Plan Perspect*. 2001;27(1):20-27.

TCIUrbanHealth.org