

RESOURCE GUIDE

Public-Private Partnerships (PPPs)

Why, What, and How for Sustainable Immunization Financing

April 2019

BREAKING NEW GROUND

THINKWELL



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ACRONYMS

AMC advanced market commitment

BOT build-operate-transfer

DFID Department for International
Development

DTP3 diphtheria-tetanus-pertussis

HPV human papillomavirus virus

HTA health technology assessment

IFPMA International Federation of
Pharmaceutical
Manufacturers & Associations

LMICs Low- and middle-income countries

MRI magnetic resonance imaging

NASA National Aeronautics and Space
Administration

NITAG National Immunization Technical Advisory
Group

PPP public-private partnership

TRAC Trans African Concessions

UHC universal health care

WASA Water and Sewage Authority

WHO World Health Organization

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INTRODUCTION

Immunization programs worldwide face challenges related to increasing immunization budgets and improving program performance, that can potentially be addressed through public-private partnerships (PPPs). Immunization programs face a myriad of challenges, ranging from limited or inflexible budgets to program performance issues of access and coverage. These challenges are commonly seen across different countries, and adversely impact the public sector's ability to add new vaccines to the schedule or to expand schedules to broader target cohorts. Many of these systems and program challenges, while large, can potentially be addressed through strategic partnerships with the private sector to leverage its resources, expertise and capabilities. By engaging in PPPs both governments and private companies can benefit from each partners' unique strengths to mutually and sustainably address challenges that otherwise prevent governments from achieving sustained and growing immunization programs.

Common understanding and a clear typology of PPPs are needed to ensure partnerships result in increased shared value. The term PPP has been used for decades to describe projects across numerous sectors, including energy, agriculture, transportation and health. Despite the term's widespread use, there is neither a universally accepted definition of a PPP, nor a definitive system of classification for different types of PPPs. There is need to better understand the challenges that PPPs tend to address, reasons why public and private sector partners are motivated to enter into a collaborative arrangement, and different models of PPPs that link the challenges to motivations for shared value across partners. Towards that end, this resource guide is designed to enhance the understanding of PPPs and how they may be used to address challenges commonly found in immunization financing. This guide focuses on ensuring a common language and shared understanding of PPP typology, supported with examples of models across health and non-health sectors that have addressed financing and systems performance issues. The objective of this guide is to provide guidance on how define, select, and design PPPs for increased shared value across public and private sector partners.

PPPs represent a new way for private stakeholders to engage with governments to address immunization financing challenges. Stakeholders outside of governments are often uniquely positioned to leverage their expertise and capabilities in a PPP to support national immunization programs in ensuring increased national budgets and strong systems to absorb those budgets efficiently for sustained and growing immunization programs. This guide will apply commonly seen challenges facing immunization financing to the PPP typology developed in order to demonstrate how public or private actors can begin to design PPPs to improve sustainable immunization financing¹. The objective of this work is to share a clear, methodological way of defining and classifying PPPs and process for selecting and adapting appropriate models.

¹ Click [here](#) to learn more about the sustainable immunization financing project and country work done to date.

METHODOLOGY

The evidence and insights presented in this report are based on a systematic search of peer-reviewed and grey literature, as well as a targeted review of web resources from key institutions. From an initial screening of over 3,600 peer-reviewed documents and 42 online guides, resources and white papers; 155 peer-reviewed documents and 25 online resources were reviewed in depth. In addition to the health sector, these resources encompassed learnings from multiple sectors, including general development, agriculture and infrastructure.² Search results were narrowed to those that were most relevant through two rounds of screening. The first round focused specifically on the development of a proposed PPP typology framework. This work included typological analysis to identify key points of variation and similarity in PPP definitions and classification frameworks across resources. From this search round, a definition of PPPs was generated and the initial typology developed. This typology consists of five overarching support categories of PPPs and the different types of PPP models within each category. A second, more targeted search was conducted to locate appropriate case examples for each of the identified general PPP support types and models. Details were extracted from the selected resources for analysis to aid in the identification of key attributes for PPPs.

MOTIVATIONS FOR PUBLIC-PRIVATE PARTNERSHIPS

Public sector motivations for entering a PPP

Resource limitations, both financial and operational, lead the public sector to pursue PPPs. The public sector faces numerous challenges in meeting the needs of its citizens. Often there are restrictions and limitations on how public money can be spent, leaving governments looking to outside sources for help in filling funding gaps. Additionally, the public sector is often less likely to have access to private sector technology and innovation, leading to inefficiencies in their operations. For these reasons, governments are increasingly looking to the private sector to address specific challenges, such as:

- *Physical assets are insufficient:* Public facilities are often not appropriately located or sufficient to address the needs of all citizens, and existing facilities often suffer from chronic underinvestment. Lack of capital precludes the ability of governments to build or rehabilitate the public assets.
- *Market failure for product development or availability:* Unfavorable existing commercial incentives often direct private sector resources away from either developing products that meet a social need or making those products more widely available. The public sector is often unable to deliver on this need alone, owing to a lack of capacity or expertise.
- *Service delivery issues:* In many countries, the public sector is unable to adequately meet the health needs of its citizens due to systems performance challenges resulting in poor access, coverage or quality.
- *Lack of, or limited, policies:* Restrictive or non-existent policies and regulations can make it challenging for governments to operate effectively and efficiently. Health

² Note: Refer to Annex 2 for the complete methodology, including sources consulted, search terms used, screening criteria and typological analysis performed.

priorities of citizens may not be elevated to appropriate levels owing to a lack of political will or a non-conducive policy environment.

- *Inflexible and/or limited financial resources:* Governments often face stagnant or decreasing budgets with which to deliver goods and services to its citizens. Even when financial resources are available, they are often allocated without regard to program needs and without the ability to be redirected towards those needs.

Private sector motivations for entering a PPP

The private sector is often uniquely positioned and motivated to address public challenges by bringing capital and capacity that is unavailable to governments on their own. The restrictions on capital and capacity that apply to governments do not hold for many private sector entities. Private partners often have more flexibility in deploying both capital and technical expertise, allowing them to use these resources in innovative and efficient ways. Additionally, private entities can also realize benefits by partnering with the public sector to address challenges. By entering into a PPP, private sector partners can enter or expand into a market, enhance their brand value and/or corporate reputation, generate social value, and build relationships with governments by being seen as a valued and trusted partner.

Moving towards increased shared value

Whatever the driving motivators may be, PPPs can help both the public and private sectors come together to create shared value. Shared value refers to the creation of economic value in a way that also creates social value by addressing society's needs and challenges.³ Both public and private partners are motivated to consider PPPs because of their potential to draw on the complementary strengths of both partners to achieve a mutually beneficial outcome. PPPs can open up opportunities for private investment to support public challenges that would otherwise not be possible.

PROCESS FOR DESIGNING A PUBLIC-PRIVATE PARTNERSHIP

1. DEFINE: OVERVIEW OF PUBLIC-PRIVATE PARTNERSHIPS

DEFINITION OF A PPP

While there is no formal, agreed-upon definition of a PPP, many competing definitions do exist in the literature. What definition any actor may use often depends on what sector they work in or what institution they may work for. Based on our research, we propose the following definition:

A public-private partnership is a formalized, collaborative arrangement over a period of time with at least one public entity and one private entity in joint pursuit of shared value.

ATTRIBUTES OF A PPP

Though there is no common definition, all PPPs have common attributes that can be qualified and mapped against shared value. Research across different categories and models of PPPs has shown that there are key attributes across all collaborative

³ Kramer and Pfitzer (2016).

arrangements. The four attributes represent the shared roles and responsibilities of all partners involved in the PPP and include: **shared objective**, **shared design**, **shared risk**, and **shared accountability**. Each attribute ranges on a spectrum from low to high and can be leveraged based on the design of the PPP. The higher on the spectrum an attribute is, the greater potential there is for the collaborative arrangement to maximize shared value. A PPP that measures high across all key PPP attributes is one that is effectively creating increased shared value through the partnership.

Shared Objective:

A shared objective is one in which all partners are pursuing the double bottom line of an economic value and social value. Economic value is commonly viewed as the financial benefits generated to participating partners and is typically measured in terms of value for money or dollars saved, yet economic value can include benefits and metrics beyond just the financial. Economic value can also come in the form of an improved reputation, for example, or be measured in productivity gains for a population owing to a reduced disease burden. Social value refers to the degree to which societies' most pressing challenges are being met. Areas in which social value can be found include health, development, climate change, job creation and homelessness, among others.⁴ Social value can be measured by metrics at different levels such as implementation of a process (such as doses administered), outputs (such as doses administered or people served) or outcomes, such as lives changed. When economic and social value are high, an improvement in a social condition also leads to economic benefit for all participating partners.⁵

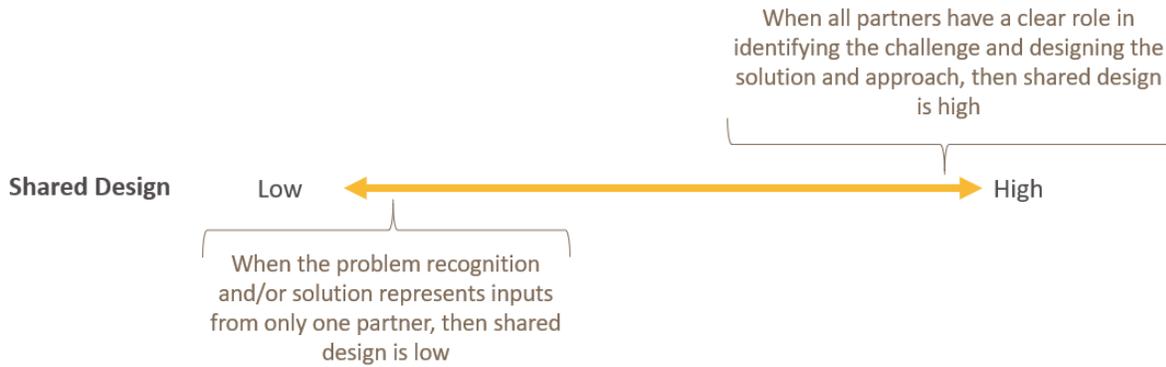


Shared Design

Shared design implies involvement across all partners in identifying and understanding the societal need or challenge to be addressed. Shared design also includes an element of solution development to ensure involvement of all partners in the co-creation of the design and approach proposed by the PPP.

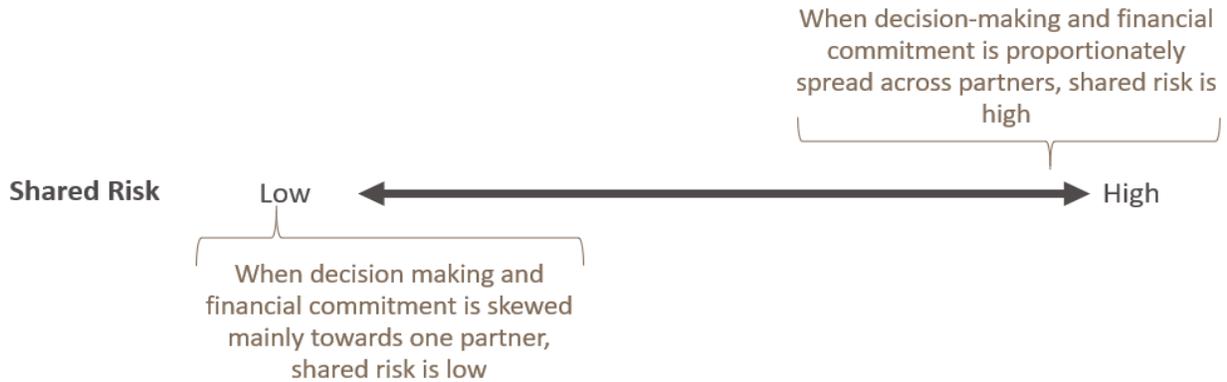
⁴ Kramer and Pfitzer (2016).

⁵ Pfitzer, Bockstette, and Stamp (2013).



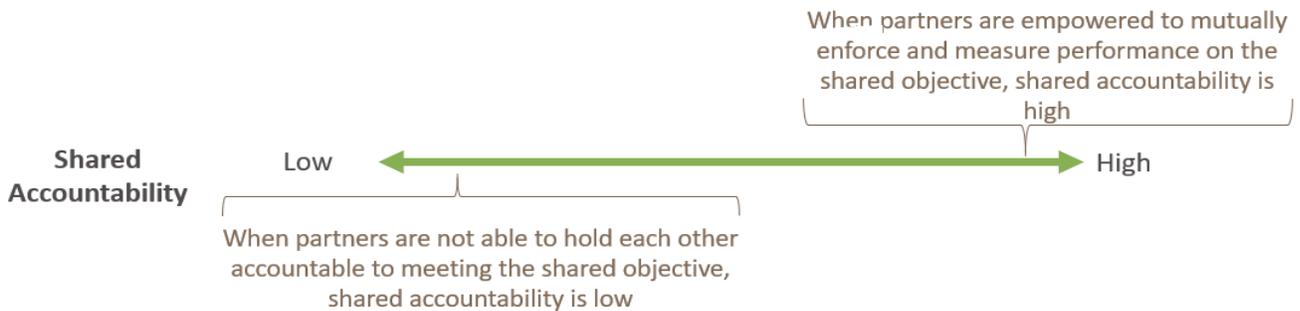
Shared Risk

Shared risk includes an element of the degree of control (i.e. decision-making authority) each partner has within the PPP. It also includes an element of the capital outlay based on the financial commitment from each partner.



Shared Accountability

Shared accountability means that the partnership is mutually reinforcing with a shared measuring system for success. Partners are empowered to hold each other accountable to their roles and responsibilities for meeting the shared objective and there is a transparent and agreed-upon method for assessing whether the objective was met.



2. SELECT: MATCHING THE SUPPORT CATEGORIES AND MODELS OF PPP TO THE PUBLIC CHALLENGES

The type of support a private partner can provide is dictated by the public challenge that drives the motivation of the public partner. As seen above, motivations of the public partners for PPPs are based on the different types of challenges across the health system. Based on a review across health and non-health sectors, PPPs fall into five main categories of support that can be provided by the private partner. The table below matches the public motivations to the support categories of PPP.

Table 1: Matching the Public Motivation to the Private Sector Support Type

Public Motivation	Support Type
Physical assets are insufficient	Infrastructure Development
Market failure for product development or availability	Catalytic Action for Market Shaping
Service delivery issues (access, coverage and/or quality)	Systems Strengthening
	Supply Demand
Lack of or limited policies	Policy Engagement
Inflexible and/or limited financial resources	Innovative Financing

- Infrastructure Development:** When the private sector provides infrastructure development support, structures, plants, facilities or equipment that are subject to public use or are used in the provision of a public service are built, upgraded and/or maintained by the private partner. In exchange, the private partner receives remuneration during the time it operates this infrastructure.
- Catalytic Action for Market Shaping:** In new or evolving markets, there can be unmet social need for a product. Commercial incentives for the private sector are lacking or misaligned, resulting in inadequate investment in the development or dissemination of the product that can address the social need. Catalytic action for market shaping, such as risk reduction or guaranteed market volumes, can be used by the public sector to create ‘push’ or ‘pull’ mechanisms to encourage increased investment from the private sector to use its expertise and capacity to fill the unmet need.
- Systems Strengthening – Supply or Demand:** Systems strengthening support is provided to address supply- or demand-side barriers for a public service. For instance, limitations in public capacity can be addressed by private sector facilities and/or expertise through a range of different models. In a supply-oriented model, the private partner lends support to governments, typically in the form of in-kind or technical expertise, to help increase the quantity, coverage and/or quality of that good or

service. In a demand-oriented model, the private partner shares its marketing and communication expertise to help design, develop and/or implement campaigns promoting desired behavior.

- **Policy Engagement:** The lack of a supportive policy environment, either through restrictive or absent policies or regulations, can limit the extent to which both governments and private sector actors can achieve their intended outcomes. Typically, in collaboration with a range of different stakeholders - including advocacy groups, civil society and academic institutions – private sector partners can help with formulating or updating policy or with advocacy efforts to encourage a policy development or revision.
- **Innovative Financing:** Innovative financing is a relative term, but generally refers to mechanisms that have the potential to supplement existing funding channels by tapping into new sources and/or expand the impact of current financing structures.⁶ (Note: Innovative financing mechanisms are further explored in the Innovative Financing for Sustainable Immunization Resource Guide).

Within each of these support type categories, different PPP models exist. The table below identified lists the different PPP models based on the type of support categories. These are further substantiated with examples across different sectors.

Table 2: Matching the Public Motivation to the Private Sector Support Type and Associated Models

Public Motivation	Support Type	Models	
1. Physical assets are insufficient	Infrastructure Development	Build-Operate-Transfer, Concession	
2. Market failure for product development or availability	Catalytic Action for Market Shaping	Joint Venture, Technology Transfer, Advanced Market Commitment	
3. Service delivery issues (access, coverage and/or quality)	Systems Strengthening	Supply	Contracting In, Contracting Out, Training/Knowledge Sharing
		Demand	Communications Support
4. Lack of, or limited, policies	Policy Engagement	Policy Advocacy	

⁶ Michaud and Kates (2011).

5. Inflexible and/or limited financial resources⁷

Innovative Financing

Corporate Social Responsibility Grants, Loans, Trust Funds, Impact Bonds⁸

It is important to note that the models within the support categories are neither exhaustive nor mutually exclusive. Many PPPs contain elements of multiple models in their structure. For example, a Build-Operate-Transfer model may also contain elements of contracting-in. The following section provides an explanation of each of the models, an illustrative example of each in health and non-health sectors, and how each of these examples can be assessed for shared value using the key attributes mapping.

⁷ For additional information on innovative financing, ThinkWell, with the support of Merck Sharpe and Dohme, has published a resource guide: [Innovative Financing for Immunization](#).

⁸ While the examples listed are not profiled in this resource guide, the Innovative Financing for Immunization resource guide provides explanations, examples, and use cases on each mechanism.

OVERVIEW OF MODELS

1a. Infrastructure Development: Build-Operate-Transfer Model

In a Build-Operate-Transfer (BOT) model, the public partner grants the private partner the right to develop and operate a facility or system for an agreed-upon time period. The private partner finances, owns, and constructs the facility or system and operates it commercially for the period of the project, after which it is transferred to the public partner.⁹ The revenues generated from the operation phase are meant to cover operating costs and maintenance of the project, as well as provide financial return for the private partner. Under a BOT model specifically, the public partner is looking to tap into private sector financing to overcome capital constraints it faces in building a needed facility or system. Variations on this model include but are not limited to: Design-Build-Operate-Transfer, Build-Lease-Transfer, Build-Finance, Design-Build-Operate, Build-Finance-Operate, Build-Finance-Maintain-Transfer, Design-Construct-Manage-Finance.¹⁰

Infrastructure: Build-Operate-Transfer Model, Health Example

Project: Construction of a hospital and clinic system in Lesotho

Public Partner: Government of Lesotho

Public Motivation: Physical assets are insufficient

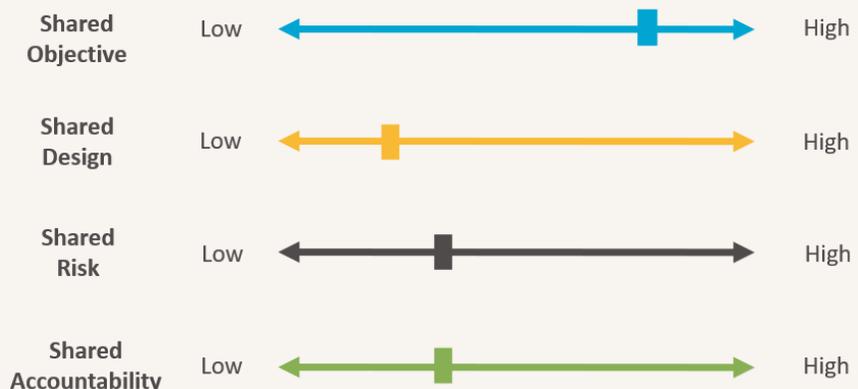
Private Partner: Consortium of private local companies headed by Netcare (private hospital system in South Africa)

Private Motivation: Partnership opportunities with governments, market entry/expansion

Shared Objective: To improve the coverage rates of essential public health services and strengthen public health institutions in Lesotho

In 2005, the Government of Lesotho decided to pursue a PPP to replace the 100-year old Queen Elizabeth II hospital, build a new filter clinic and upgrade three other primary-care clinics. In total, these health centers provided care to more than 25% of Lesotho's population. Netcare formed a consortium with local companies, and in October 2008 signed an eighteen-year agreement with the government. The new filter clinic and the new Queen Mamohato Memorial Hospital opened in 2011, with the consortium billing the Ministry of Health for services rendered. The new facilities recorded a 41% decline in death rate as compared to the previous facilities and has seen a 30% increase in the number of patients seen every day. While achieving impressive care outcomes, the national health budget has had to be increased each year since its operation to meet the costs of the hospital and clinics, while spending in other departments such as education and agriculture have been cut.

Shared Value Key Attributes Mapping



Sources:

Webster (November 14, 2015).
World Bank (February 19, 2016).

¹⁰ PPP Knowledge Lab (2017).

1b. Infrastructure Development: Concession Model

In a concession model, the public partner gives the private partner (the concessionaire) the long-term right to operate and maintain public assets.¹¹ After the end of the project period, the assets and their operation revert to the public partner. Under a concession model, the private partner does not build new infrastructure, but instead operates and maintains what is already in place. Maintenance undertakings often include capital investment to upgrade the existing asset. The revenues generated from the operation phase are meant to cover operating costs, maintenance of the project, as well as provide financial return for the private partner. In this model, the concessionaire can obtain its revenues straight from the consumer - therefore having a direct relationship with the consumer- or through an agreed-upon payment structure with the government partner. Variations on this model include but are not limited to Modernize-Operate-Transfer, Rehabilitate-Own-Operate, Rehabilitate-Operate-Transfer, Transfer-Operate-Transfer.¹²

Infrastructure: Concession Model, Health Example

Project: Upgrading diagnostic facilities in Bahia State, Brazil

Public Partner: State Government of Bahia, FIDI (diagnostic services organization of the Brazilian government)

Public Motivation: Physical assets are insufficient

Private Partner: Philips, Alliar (diagnostics imaging company)

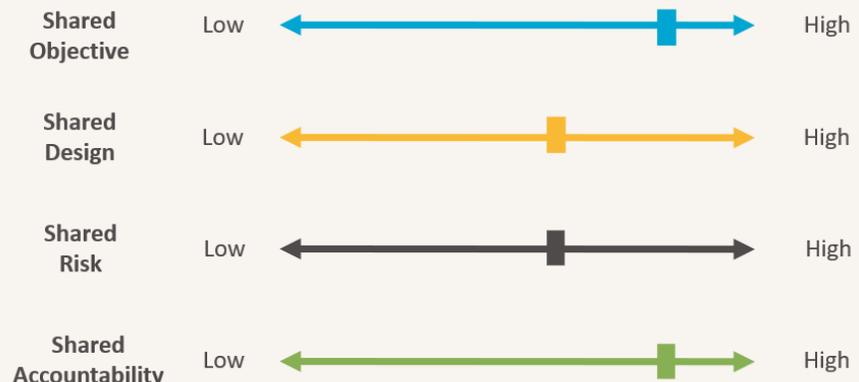
Private Motivation: Market entry/expansion

Shared Objective: To increase patient access to imaging and diagnostics services and infrastructure in Bahia State, Brazil.

The State Government of Bahia, Brazil was facing rapidly growing demand for imaging services in its state healthcare system yet was unable to upgrade their health infrastructure to meet this need. To address this challenge, the government partnered with medical equipment provider Phillips and Alliar (one of the largest private diagnostic-medicine networks in Brazil) for an 11.5-year concession agreement, in which Phillips, Alliar and FIDI invested over \$40 million in operating equipment and infrastructure for the imaging units of 12 hospitals. In exchange, the private consortium receives payment for services provided from the Brazilian government following an agreed-upon payment schedule. After the project period is completed, the Brazilian government will take over the maintenance and operation of the facilities. In its first year of operation, this partnership realized a 44% increase in diagnostic exam capacity over the previous year.

Shared Value Key Attributes

Mapping:



Sources:

Anker (January 26, 2016).

Global Health Intelligence (February 14, 2017).

Philips News Center (2017).

2a. Catalytic Action for Market Shaping: Joint Venture Model

In a joint venture PPP, the public and private partners come together to develop a specific project together. While each partner retains its separate business, joint venture projects are ring-fenced from each partner's day-to-day operations and have a clear end goal that marks the conclusion of the venture. Joint venture PPPs differ from other PPP models in that the project risk is shared equally by both the public and private partners, unlike other models in which one partner bears most of the risk. In a joint venture, the public and private partners typically operate as true co-owners of the project. Common reasons for undergoing a joint venture include business expansion, development of new products or moving into new markets, particularly overseas.¹³

Catalytic Action for Market Shaping: Joint Venture Model, Health Example

Project: Develop and co-market medical electronics

Public Partner: Global Affairs Canada and Global Innovation & Technology Alliance of India

Public Motivation: Market failure for product development or availability

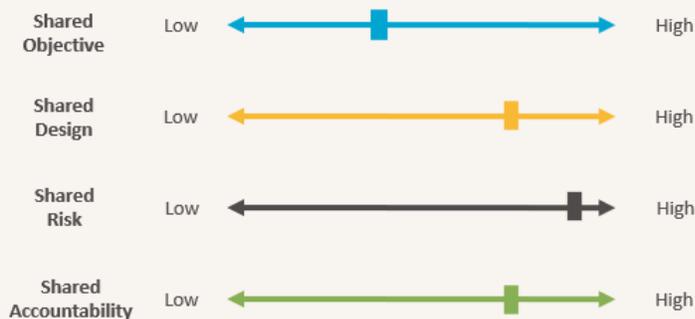
Private Partner: Unique Broadband Systems (Canada) and Kaynes Technology (India)

Private Motivation: Market entry/expansion

Shared Objective: To expand the availability of quality and affordable MRI scanners

To meet the growing need for reliable MRI technology in India, Unique Broadband Systems of Canada partnered with Kaynes Technology in 2017 to co-develop and co-market the inputs needed for MRI machines. Unique Broadband Systems will design the circuitry and electronics, while Kaynes will provide the packaging and manufacturing expertise. By using Unique Broadband Systems' technology, the MRI machines will be made more portable and less expensive to operate, helping to improve the cost effectiveness of these machines, particularly in rural areas. Unique Broadband Systems is able to enter the Indian market with a partner who is already operational in India, while both partners are able to leverage financial support from the Indian and Canadian Governments to help increase the number of MRI machines in country.

Shared Value Key Attributes Mapping:



¹³ Higgins and Huque (2014).

2b. Catalytic Action for Market Shaping: Technology Transfer Model

Technology transfer describes the formal transfer of rights to use and commercialize new discoveries and innovations resulting from scientific research to another party.¹⁴ In vaccines, there are a variety of degrees of technology transfer and it can involve the transfer of processes, knowledge, skills and/or intellectual property, depending on the regulatory environment, existing infrastructure and expertise.¹⁵ Technology transfer is often used by governments to disseminate federally developed research and development out to the marketplace for commercialization, however it can also be used to bring technology developed by industry into the federal arena for further research, development and commercialization.¹⁶ The originator of the technology grants permission to the other party in exchange for royalties or other payments. Technology transfers are commonly used in academia, whereby technologies developed by universities are licensed to private companies. Technology transfer has often been used to export technical goods and know-how from one country to another. Given the complexity of manufacturing vaccines, technology transfers can require substantial resource and time investment by all stakeholders involved.¹⁷ There are several examples of technology transfer partnerships in the literature. One well-documented case study is the development of the MenAfriVac™ vaccine to address the burden of meningitis A in sub-Saharan African countries.^{18 19}

2c. Catalytic Action for Market Shaping: Advanced Market Commitment Model

Advanced Market Commitments (AMCs) are legally-binding agreements for an amount of funds to subsidize the purchase of an as of yet unavailable medicine against a specific disease.²⁰ AMCs provide incentives to private companies to invest in the necessary research, manufacturing and supply capacity needed to bring the product to market. AMCs are a unique model of a catalytic action for market shaping support in that they are currently used only for medicines development. Financiers, often donors, governments or foundations, subsidize the purchase of medicines by developing countries, up to a fixed number of sales or a fixed total amount. In some cases, manufacturers having benefited from the subsidy are contractually obliged to either sell to developing countries at an agreed upon price or to license their technology to other manufacturers.²¹

¹⁴ Association of University Technology Managers (n.d).

¹⁵ IFPMA (n.d.)

¹⁶ Schacht (2012).

¹⁷ World Health Organization (2011).

¹⁸ Préaud, Jean-Marie. (November 30, 2010).

¹⁹ Kulkarni et al (2015).

²⁰ World Health Organization (July 19, 2006).

²¹ Ibid

Catalytic Action for Market Shaping: Advanced Market Commitment Model, Health Example

Project: Advanced Market Commitment for pneumococcal vaccine

Public Partner: Governments of Canada, Italy, Norway, Great Britain

Public Motivation: Market failure for product development or availability

Private Partner: Pfizer, GlaxoSmithKline

Private Motivation: Generating social/public value

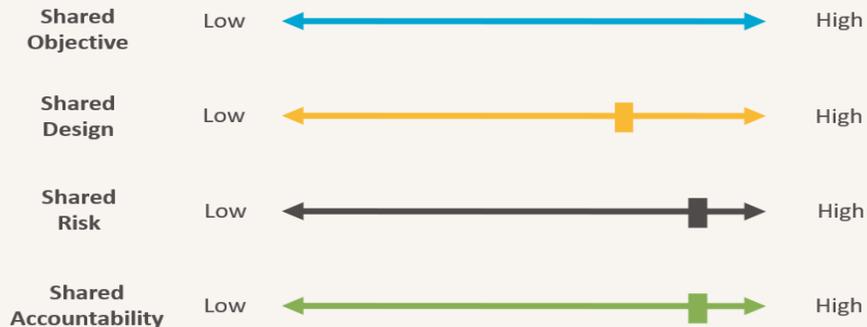
Support: Bill & Melinda Gates Foundation, WHO

Shared Objective: To provide a guaranteed supply and demand for a pneumococcal vaccine for low- and middle-income countries

The pneumococcal vaccine advanced market commitment (AMC) was launched in 2009 to help accelerate the introduction of a pneumococcal vaccine for low- and middle-income countries (LMICs). Without the AMC, unpredictable forecasting, demand, and commitment from LMICs created challenges for vaccine manufacturers to bring the vaccine to market in these countries, despite significant unmet need. Donors committed \$1.5 billion to guarantee the price of the vaccine, providing the needed incentive for manufacturers to expand their manufacturing capacity and distribution capacity for these markets. In exchange, participating companies signed a legally-binding ten-year commitment to provide a share of the targeted demand of 200 million annual doses at a price no higher than \$3.50 per dose. Each manufacturer receives a share of the committed AMC funds in proportion to their supply commitment, effectively raising the price they receive to \$7 per dose.

Shared Value Key Attributes

Mapping:



Source:

Cernuschi et. al (October 7, 2011).

3a. Systems Strengthening – Supply: Contracting-In Model

Under a contracting-in model, the private partner is contracted by the public partner to provide a defined set of services in a public facility over a period of time.^{22,23} The private partner typically must meet agreed-upon metrics in order to be remunerated by the public partner. Often the private partner is given more flexibility than a public provisioner, in how they achieve their agreed-upon outcomes. As contracting-in PPPs involve the

²² Taylor (2003).

²³ Liu et. al (September, 2004).

private partner providing services at existing public sector facilities, they are typically “asset-light”, particularly in comparison to an infrastructure development support type.

Systems Strengthening – Supply: Contracting-In Model, Health Example

Project: Expanding dialysis availability in Romania

Public Partner: Government of Romania

Public Motivation: Service delivery issues (access, coverage, and/or quality)

Private Partner: Four international dialysis facility operators: B.Braun, Baxter, Fresenius, and Gambro

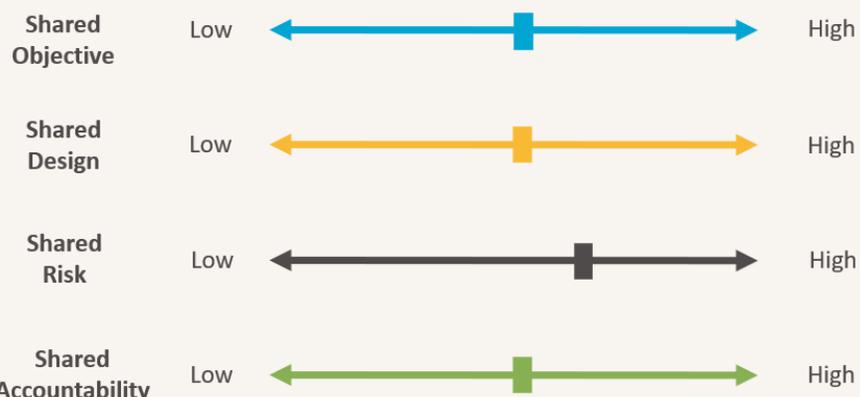
Private Motivation: Market entry or expansion

Shared Objective: To increase the access and quality of dialysis services for patients in Romania

A 2002 International Finance Corporation study found that Romania’s national healthcare system provided among the most costly and inferior dialysis services in Europe. In response to this, the Romanian government began a pilot program in 2003 with four private, international dialysis companies to manage and operate eight public clinics. As part of that management, each private partner invested varying amounts of capital in the clinics themselves but was also able to deliver care how they saw fit, provided they met agreed-upon metrics and adhered to national standards. In exchange, each company was paid a fixed fee-for-treatment by National Health, that averaged less than those fees being paid to public clinics. Independent evaluators at the end of 2008 concluded that the program had saved the national health agency nearly \$4.5 million while simultaneously delivering more treatments and achieving better health outcomes.

Shared Value Key Attributes

Mapping:



Sources:

Abuzaineh et. al (2018).

International Finance Corporation (2008).

3b. Systems Strengthening – Supply: Contracting-Out

The private partner provides a defined set of services in their own facilities on behalf of the public partner in exchange for payment by the public partner.²⁴ The objective is to alleviate capacity constraints seen in public facilities and to expand service delivery.

Systems Strengthening – Supply: Contracting-Out, Health Example

Project: Chiranjeevi Yojana in India

Public Partner: Government of Gujarat, India

Public Motivation: Service delivery issues (access, coverage, and/or quality)

Private Partner: Over 860 private physicians in Gujarat

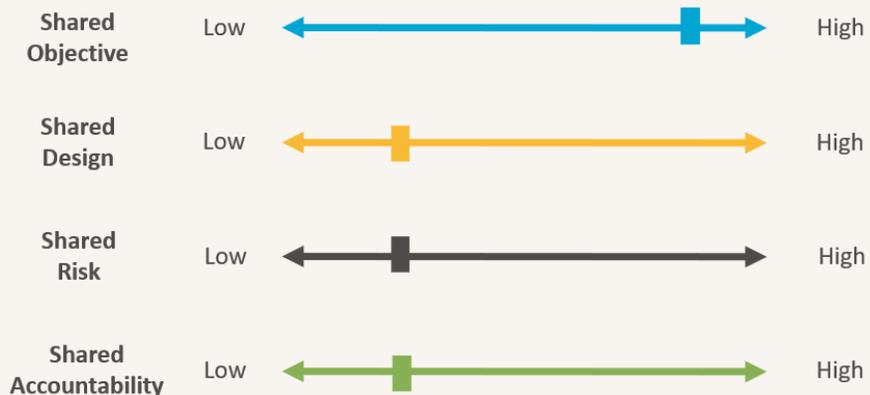
Private Motivation: Market entry/expansion, Generating social/public value

Shared Objective: To increase access to institutional deliveries for underserved mothers.

Gujarat State in India in 2005 had one of the highest maternal mortality rates in the country, with home births constituting over 43% of births. Although care at public facilities was free of charge, very few public practitioners performed emergency obstetric services, placing the health of mothers and their newborns at risk. The Government of Gujarat entered into a contractual agreement with private physicians to increase its capacity to provide these services to its citizens and entered into a contractual agreement with over 860 qualified private physicians. The government reimbursed the physicians at US\$4500 each for a package of 100 deliveries to be performed in their facilities for indigent mothers. Since 2006, over one million births have taken place under this scheme.

Shared Value Key Attributes

Mapping:



Source:
Iyer et. al (2016).

²⁴ Abuzaineh et. al (2018).

3c. Systems Strengthening – Supply: Training/Knowledge Sharing

In a training/knowledge sharing PPP, either the public or private partner shares its expertise and experience to support the other to address a public challenge. This sharing can be accomplished via training on a specific procedure or process from one partner to another, or via knowledge sharing on lessons learned from analogous situations.

Systems Strengthening – Supply: Training/Knowledge Sharing, Health Example

Project: Tanzanian Training Center for International Health

Public Partner: Tanzanian Ministry of Health and Social Welfare, Swiss Tropical and Public Health Institute

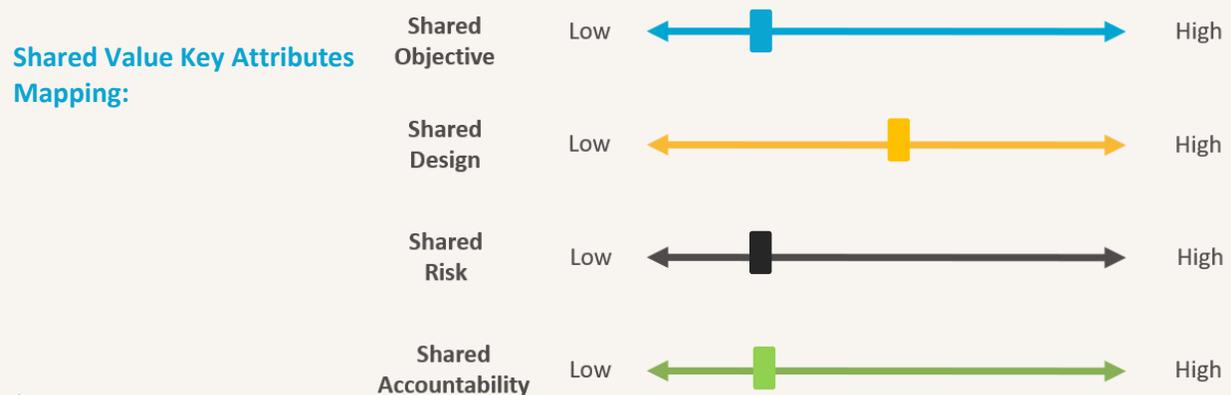
Public Motivation: Service delivery issues (access, coverage, and/or quality)

Private Partner: Novartis

Private Motivation: Generating social/public value

Shared Objective: To support the Tanzanian government’s national health reform policy for strengthening human resource development by providing quality health training.

The Tanzanian Training Center for International Health is a health training institution established in 2006 with the goal of addressing the shortage of Tanzanian health workers. The Center offers training courses in medical education, innovation and research, and has trained hundreds of Tanzania’s medical workforce to address commonly seen challenges in maternal and child health and community health, graduating over 500 assistant medical officers. Novartis provides corporate training in areas such as business management, financial analysis, marketing, and human resources, aimed at helping the Center work towards sustainability.



Sources:

Global Health Workforce Alliance (n.d).
Tanzanian Training Centre for International Health (n.d).

3d. Systems Strengthening – Demand: Communications Support Model

In a communications support model, the private partner supports the public partner to address a behavior change challenge. The technical support provided is based on the private partner’s expertise with developing and implementing communication and

marketing strategies.²⁵ Often under these partnerships, the public partner wants to promote a behavior or a good that it itself is not the sole provider of but stands to benefit from. For example, a Ministry of Health promoting consumption of whole grains by its citizens. The private partner often provides that good, such as a food company that produces whole grain products and supports the public partner with developing a communications or marketing campaign, providing in-kind or monetary support.²⁶ In this way, the private partner contributes to both improving societal good and benefits economically from the increased demand.

Systems Strengthening – Demand: Communications Support Model, Health Example

Project: Communications campaign to address vaccine hesitancy in Washington State, USA

Public Partner: Washington State Department of Health

Public Motivation: Service delivery issues (access, coverage, and/or quality)

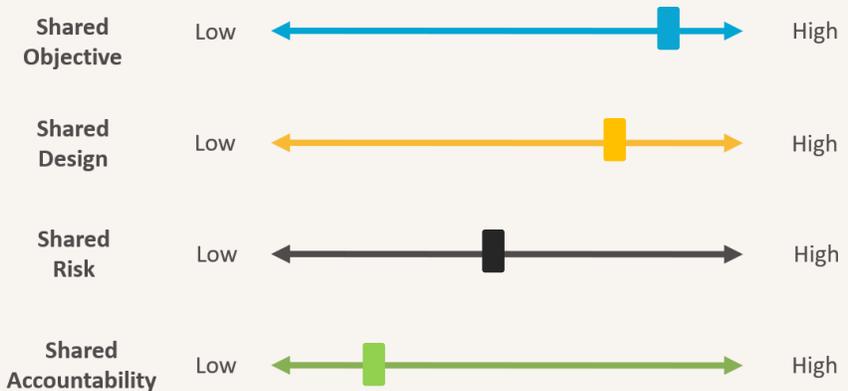
Private Partner: BestStart Washington, the Washington Chapter of the American Academy of Pediatrics, Kaiser Permanente, Seattle Children’s Hospital and WithinReach

Private Motivation: Generating social/public value

Shared Objective: To promote vaccination and vaccine confidence across the lifespan in Washington state and beyond.

Washington State was experiencing the highest kindergarten vaccination exemption rate in the US at 7.5% in 2008, increasing the risk of an outbreak. To address this vaccine hesitancy, a three-year community intervention was designed to mobilize parents who value immunization and provided them with tools to engage in positive dialogues about immunization in their communities. In addition, toolkits and messaging were developed and disseminated through social media and advertising. Pediatricians were also identified as key intervention points and were engaged to convey the importance of vaccines to parents during their children’s visits. As a result, the percentage of parents self-reporting as “vaccine-hesitant” decreased from 22.6% to 14% and overall vaccine-related attitudes improved.

Shared Value Key Attributes Mapping:



Sources:

Faubion (July 25, 2016).
 Immunity Community (n.d).
 Kaiser Permanente (April 11, 2017).

²⁵ The Health Communication Capacity Collaborative HC3 (2014).

²⁶ Greve and Rikke (December 2014).

4a. Policy Engagement: Policy Advocacy Model

In a policy advocacy model, public and private partners come together to push for increased attention and/or resources to be focused on a specific policy issue, often with the end goal of developing or updating a policy or regulation. Public partners can provide political expertise and help establish relationships with key government stakeholders, while private partners can deploy technical expertise and experience to inform the policy engagement.²⁷ Under this PPP, the end goal is typically clearly defined, but there is more flexibility in how it is achieved. For example, a government partner may be looking to cap greenhouse gas emissions from a certain industry, while the industry partners may help come up with a solution for how to meet that cap and provide input on how that cap is set. Non-governmental organizations often play a convening role in such partnerships.

Policy Engagement: Policy Advocacy Model, Health Example

Project: Harmonized regulatory system in Africa

Public Partner: New Partnership for Africa’s Development (NEPAD, technical arm of African Union), heads of state

Public Motivation: Lack of, or limited, policies

Private Partner: IFPMA

Private Motivation: Partnership opportunities to solve government challenges

Support: DFID, WHO, Bill & Melinda Gates Foundation

Shared Objective: To support African countries in overcoming patient access barriers to health products by building efficient medicines registration through regional harmonization.

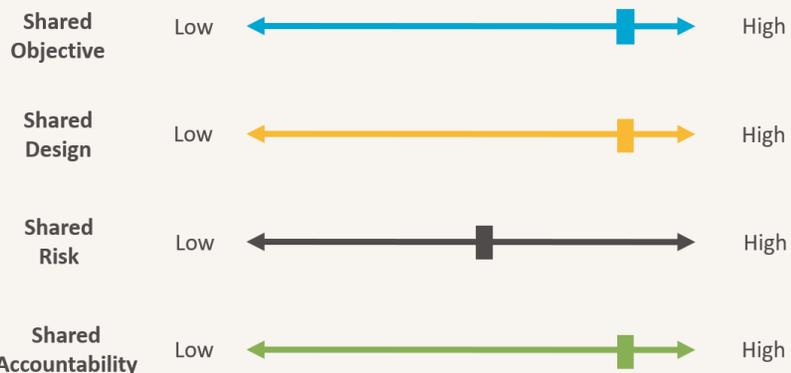
Regulatory hurdles in getting medicines to market in African countries often translate to delays of up to 10 years compared to the US. Such hurdles include lengthy approval processes, limitations in technical capacity and capability, resource constraints, and duplicative review processes from country to country. To address these barriers, the African Medicines Regulatory Harmonization Initiative was launched in 2009 to support African countries in building efficient medicine registration systems through regional harmonization. A consortium of pharmaceutical companies represented by IFPMA, came together with African heads of state, WHO, DFID and the Bill & Melinda Gates Foundation to create a collaborative and simplified regional regulatory platform to harmonize technical requirements and guidelines for registration of medicines. Participating governments were able to help accelerate patient access to needed medicines while pharmaceutical companies were able to provide input to regulatory procedures, helping to ensure their compliance.

Shared Value Key Attributes

Mapping:

Sources:

Ahonkhai et. al (2016).
Devex (November 23, 2017).
Holt et. al (June 2015).
IFPMA (May 25, 2018).



5. Innovative Financing Mechanisms:

Innovative financing is a relative term that generally refers to mechanisms with the potential to supplement existing funding channels by tapping into new sources and/or expand the impact of current financing structures.²⁸ Mechanisms that were once new and innovative have now merged into the health financing landscape. Innovative financing mechanisms can be categorized as (1) novel funding mechanisms that source new program funds, or (2) performance improvement mechanisms that make existing funds go further. Most innovative financing tools imply collaboration between multiple stakeholders. Thus, most models can be designed to be a public-private partnership.

Novel funding mechanisms have the potential to bring in more money and combat affordability challenges. These mechanisms are those that tap into or free up new funds outside of existing traditional channels.²⁹ They may also be successful at making funds more rapidly available. Examples of novel funding mechanisms may include insurance contributions, earmarked taxes, or trust funds. Furthermore, performance improvement mechanisms allow better use of existing funds. They can stimulate action to achieve an objective or improve accountability structures by inserting incentives into the health system. Performance improvement mechanisms tend to provide output-based financing in contrast to traditional input financing in order to develop the accountability structures needed to improve performance and achieve results. Examples include performance-based or results-based financing mechanisms, and impact bonds.

More information can be found in the companion resource guide, “Innovative Financing for Immunization”, which is available [here](#).

²⁸ Michaud and Kates (October, 2011).

²⁹ Michaud and Kates (October, 2011).

3. ADAPT: APPLYING PPP LEARNINGS TO BUILD SUSTAINABLE IMMUNIZATION PROGRAMS

Common challenges to sustainable immunization financing that were identified can be matched with particular PPP support types. As discussed above, the public motivations for a PPP are based on public challenges and can be matched to the type of support a private partner can provide. Based on the landscaping work done at country and regional level in Asia Pacific and Latin America regions, there are commonly seen challenges in sustainable immunization financing that can be matched with support types for potential PPP models. Each of these challenges can be classified as one of resource mobilization or performance improvement.

Table 4: Immunization Program Challenges and Potential PPP Support Types and Models to Address those Challenges

	Examples of Challenges	Category	Model	Example
Challenges - Resource Mobilization	Low vaccination coverage rates	Systems Strengthening	Contracting Out	Contract out immunization delivery services to a wider range of accredited providers
		Systems Strengthening	Training/Knowledge Sharing	Leverage private sector expertise and capabilities to support underperforming regions in improving coverage rates
	Government revenue generation or immunization budget allocations do not provide the needed program financing to deliver procured vaccines	Systems Strengthening	Training/Knowledge Sharing	Facilitate learnings from other immunization programs and private sector actors to better inform what resources are needed to deliver immunization programs. This can be based on learnings and information from pilot programs launched by manufacturers for specific vaccines.
	Pilot/demonstration vaccination programs are not nationally scaled	Inflexible and/or limited financial resources	Innovative financing	Novel funding mechanisms can tap into or free up new funds outside of existing traditional channels. ³⁰ They may also be successful at making funds more rapidly available. Examples of novel funding mechanisms may include insurance contributions, earmarked taxes, or trust funds.
Policy Engagement		Policy Advocacy	Engage private sector and civil society stakeholders to advocate for sustained and protected immunization budgets i.e. introduction of or change to immunization laws, setting up strong NITAGs etc.	

³⁰ Michaud and Kates (October, 2011).

		Systems Strengthening	Training/Knowledge Sharing	Facilitate learnings from other immunization programs and private sector actors to better inform what resources are needed to deliver immunization programs. This can be based on learnings and information from pilot programs launched by manufacturers for specific vaccines.
Challenges - Performance Improvement	Examples of Challenges	Category	Model	Example
	Low vaccination coverage rates	Systems Strengthening	Contracting In	Contract in qualified private providers to support expanded capacity of existing public facilities
	Poor data collection and utilization in budgeting, planning, and decision-making	Systems Strengthening	Training/Knowledge Sharing	Tap into private sector expertise to support strong data collection and utilization practices
	Pilot/demonstration vaccination programs are not nationally scaled	Systems Strengthening	Training/Knowledge Sharing	Facilitate learnings from other immunization programs and private sector actors who have successfully supported the scale up of demonstration projects
	Subnational government not held accountable for delivery	Policy Engagement	Policy Advocacy	Engage private sector and civil society stakeholders to introduce vaccine-related indicators into national reporting systems
	Vaccine hesitancy	Systems Strengthening	Communications Support	Partner with the private sector to increase public awareness of the importance of timely vaccination

Designing PPP Models for Country Engagement Strategies

The design of any PPP model requires further information gathering and contextual understanding. The objective of the PPP typology and examples is to help country programs strengthen engagement strategies with the government based on the prioritized immunization challenges in the country. This resource guide is intended to complement and support a structured situational analysis, needs assessment, and stakeholder engagement process with a potential partner organization, or organizations, regarding the potential value of a PPP. Given the complexity of PPPs, it is imperative that the appropriate legal and programmatic considerations are raised within private sector entities. However, if it is determined that a PPP is a viable option to pursue in-country, it is recommended that the below issues be discussed internally:

1. **Identify the prioritized challenge:** What are the key barriers to sustainable immunization financing in-country? What are the underlying root causes?
2. **Select the type of support and model:** What type of support and associated model best fit the public challenge identified? What lessons can be gleaned from global examples?

3. **Understand the context:** What is the legal and regulatory environment in-country? What are the political barriers and enabling factors that could determine the success of a PPP? Who are the stakeholders to involve?
4. **Design the model for the context:** How can the key attributes of this model be adjusted to best fit the prioritized challenge, based on the country operating context?

CONCLUSION

Drawing from the above typology and lessons learned from other sectors, any country can begin to think through how a PPP can work to address immunization program challenges. This reference guide is meant to establish a baseline knowledge of PPPs and anchor any potential discussions on how a PPP could be designed or used in a clear framework. What is right for each individual country, with regards to PPP potential or design, is highly context-specific and requires appropriate due diligence from all stakeholders. To that end, cross-country transferability is limited, yet this guide and its accompanying framework can serve as a means to analytically approach conversations and thinking on how the private sector can partner with governments on immunization financing and programmatic challenges.

ANNEX 1: REFERENCES

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ANNEX 2: DETAILED METHODOLOGY

SEARCH STRATEGY

Process

Search conducted in two rounds. The first round, outlined below, focuses specifically on the development of a proposed PPP typology or classification framework. A second, more targeted search was conducted to locate appropriate case examples for each of the six identified general PPP types. Selection criteria for the second round included: a) relevance/fit to the type/category; b) breadth/depth/detail of information available in the case example.

Databases searched include:

- PubMed
- Business Source Complete

Websites/resources searched include:

- Africa Health Forum
- Asian Development Bank
- Bill and Melinda Gates Foundation
- Brookings Institute
- Canadian Council for Public-Private Partnerships
- Commission on UK Public-Private Partnerships
- Commonwealth Secretariat
- Congressional Research Service
- Department for International Development/UKaid
- European Commission
- European PPP Expertise Centre (EPEC)
- FSG
- Global Health Governance Group
- Global Infrastructure Facility (GIF)
- Harvard Business Review
- Harvard University
- Inter-American Development Bank
- International Bank for Reconstruction and Development
- International Federation of Pharmaceutical Manufacturers and Associations (IFPMA)
- International Finance Corporation
- Johns Hopkins University
- National Academies Press
- National Council for Public Private Partnerships
- Organisation for Economic Co-operation and Development (OECD)
- Oxfam
- PEPFAR
- PPP Knowledge Lab
- PPP Lab (Food & Water)

- PriceWaterHouseCoopers
- Public Private Partnership Infrastructure Advisory Facility (PPIAF)
- Ribera Salud Group
- Robert Wood Johnson Foundation
- Rockefeller Foundation
- Stanford Social Innovation Review (SSIR)
- The Global Health Group (UCSF)
- UNICEF
- Urban Land Institute
- US Department of Transportation
- USAID (e.g., Development Credit Authority)
- World Bank Group
- World Economic Forum
- World Health Organization

Search Terms

PubMed

Years: 2000-2018

English language

Concept 1: Public-private partnerships

(Public-Private Sector Partnerships[MeSH Terms] OR (public[Title/Abstract] AND private[Title/Abstract] AND (partnership[Title/Abstract] OR partnerships[Title/Abstract])) OR ppp[Title/Abstract] OR p3[Title/Abstract] OR 3p[Title/Abstract] OR "private finance initiative"[Title/Abstract] OR (bid[Title/Abstract] AND build[Title/Abstract]) OR (design[Title/Abstract] AND build[Title/Abstract]) OR (build[Title/Abstract] AND operate[Title/Abstract] AND transfer[Title/Abstract]) OR (transfer[Title/Abstract] AND operate[Title/Abstract]) OR "management contract"[Title/Abstract] OR lease[Title/Abstract] OR affermage[Title/Abstract] OR concession[Title/Abstract] OR concessions[Title/Abstract] OR "joint venture"[Title/Abstract] OR "partial divestiture of public assets"[Title/Abstract] OR "shared value"[Title/Abstract])

AND

Concept 2: Case/analysis

(review[Publication Type] OR "meta-analysis"[Publication Type] OR review[Title/Abstract] OR synthesis[Title/Abstract] OR analysis[Title/Abstract] OR case[Title/Abstract] OR summary[Title/Abstract] OR typology[Title/Abstract] OR typological[Title/Abstract] OR taxonomy[Title/Abstract] OR taxonomic[Title/Abstract])

AND

Concept 3: Framework/structure

("empirical research"[MeSH] OR "public health systems research"[MeSH] OR "interdisciplinary research"[MeSH] OR "operations research"[MeSH] OR theory[Title/Abstract] OR theoretical[Title/Abstract] OR conceptual[Title/Abstract] OR classification[tiab] OR typology[Title/Abstract] OR typological[Title/Abstract] OR

structure[Title/Abstract] OR taxonomy[Title/Abstract] OR taxonomic[Title/Abstract] OR arrangement[Title/Abstract] OR form[Title/Abstract] OR format[Title/Abstract])

BusinessSourceComplete

Years: 2000-2018

Search terms in Abstract; full text only; English language

Includes: academic journals, periodicals, trade publications, industry profiles, country reports

Concept 1: Public-private partnerships

((public AND private AND (partnership OR partnerships)) OR ppp OR p3 OR 3p OR "private finance initiative" OR (bid AND build) OR (design AND build) OR (build AND operate AND transfer) OR (transfer AND operate) OR "management contract" OR lease OR affermage OR concession OR concessions OR "joint venture" OR "partial divestiture of public assets" OR "shared value")

AND

Concept 2: Case/analysis

(review OR synthesis OR analysis OR case OR summary OR typology OR typological OR taxonomy OR taxonomic)

AND

Concept 3: Framework/structure

(research OR theory OR theoretical OR conceptual OR classification OR typology OR typological OR structure OR taxonomy OR taxonomic OR arrangement OR form OR format)

SCREENING

Inclusion criteria:

- English language
- Published between January 2000 to June 2018
- PPPs must be a main focus of article (i.e., not a peripheral topic/subject)
- Must provide definition of PPPs and/or conceptual insight into PPP types
- For case studies, must state the type of PPP exemplified by the case(s) presented

Process

- Two rounds of screening to limit the scope to a feasible number and to focus on the resources that are the most relevant, substantive and methodologically sound, and that cover a broad range of sectors.
- After second round of screening, DG and ThinkWell team (Amey) reviewed the full abstract text from a diverse, illustrative sample of screened resources to determine whether to include or exclude each one; final decisions with justifications for each resource were then used as a reference for the rest of the screening process. A summary of justifications for excluded resources are noted in the sub-section below titled "Selected article review to refine PPP inclusion/exclusion criteria."

DATA EXTRACTION

Prepared and populated a matrix of PPP attributes (“attribute matrix”) for each resource/example meeting the inclusion criteria. Extracted data were then analyzed to develop an operational definition of PPPs for the purposes of this project.

PPP attributes:

- Author(s)
- Date
- Title
- Abstract
- Source/URL/reference
- Database
- Term used for PPP
- Definition of PPP
- Framework or attributes used to classify/categorize PPP types

TYPOLOGICAL ANALYSIS

Conducted typological analysis on extracted data in the attribute matrix. Key steps included:

- 1) Identify key elements of PPP definitions across all resources (literature and web)
- 2) Identify key attributes used to classify PPP types across all resources that are: a) conceptually meaningful, and b) easily recognizable
 - These included commonly mentioned attributes (e.g., legal arrangement, governance/financing structure, risk-sharing, etc.) but also aspects that have received less attention in the literature (e.g., how the PPP was formed, mission orientation of the partners, etc.).
- 3) Select and articulate operational definition of PPP to guide typology development
- 4) Construct typology categories based on patterns of commonality and variation among PPPs meeting the selected definition
 - *Note: at this stage in the process, it became evident that no single classification structure would be appropriate for mapping all the different PPP types. To do so would undermine the user’s ability to identify and draw insights from real-world case examples. To address this issue, the analytical approach was modified to develop a framework of key PPP attributes that: a) substantially influenced the structure of the PPP, and; b) maximally accounted for the variation in PPP types and examples observed in the screened resources*
- 4) Test and iteratively refine constructed classification framework (e.g., by mapping against existing categories/labels of case examples, exploring boundary cases, etc.)
- 5) Describe defining attributes and key characteristics of PPP types

SUMMARY OF RESULTS FROM PRELIMINARY SCREENING

Source	Type	# reviewed	Passed 1 st cut	Passed 2 nd cut
PubMed	Peer-review	2,368	149	31
Business Source Complete	Peer-review, trade journals	1,273	267	124
Total		3,641	416	155

Source	Type	# reviewed	# resources identified	# resources w/conceptual depth
Organizations/ websites	Online resources, guides, white papers, etc.	42	49	25

ANNEX 3: NON-HEALTH EXAMPLES OF PPP MODELS

1a. Infrastructure Development: Build-Operate-Transfer Model

Infrastructure: Build-Operate-Transfer Model, Non-Health Example

Project: Construction of a toll road from South Africa to Mozambique

Public Partner: Government of the Republic of South Africa, Government of Mozambique

Public Motivation: Physical assets are insufficient

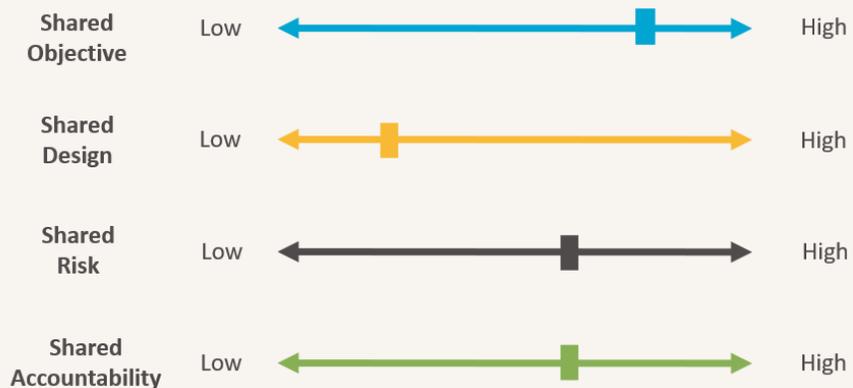
Private Partner: Trans African Concessions

Private Motivation: Partnership opportunities with governments, market entry/expansion

Shared Objective: To promote the economic relationship between South Africa and Mozambique by increasing accessibility between the countries.

As part of a larger effort to encourage a strong economic relationship between South Africa and Mozambique, both governments expressed an interest in creating a direct transport line between Pretoria and Maputo. In 1996, the governments of South Africa and Mozambique signed a 30-year agreement for a private consortium, Trans African Concessions (TRAC), to build and operate what would be termed the N4 toll road from Pretoria, South Africa to Maputo, Mozambique. The agreement was valued at \$660 million over 30 years, with half of that allocated for the construction phase. The first 3.5 years, TRAC worked to design and build the toll road, after which, TRAC was responsible for its maintenance. The operations and maintenance costs of the road were to be paid for by revenue generated from toll collection. Currently, TRAC manages 630 kilometers of toll road spanning two countries, with six toll plazas, eighteen weighing stations, and several feeder roads. As of 2012, TRAC employed 400 full time employees, and traffic volumes have averaged a 5-7% increase per year since the road was opened to the public.

Shared Value Key Attributes Mapping:



Sources:

Farlam (February 2005).

Osei-Kyei and Chan (2016).

South African Development Community (November 2012).

1b. Infrastructure Development: Concession Model

Infrastructure: Concession Model, Non-Health Example

Project: Queen Alia Airport in Jordan

Public Partner: Government of Jordan

Public Motivation: Physical assets are insufficient

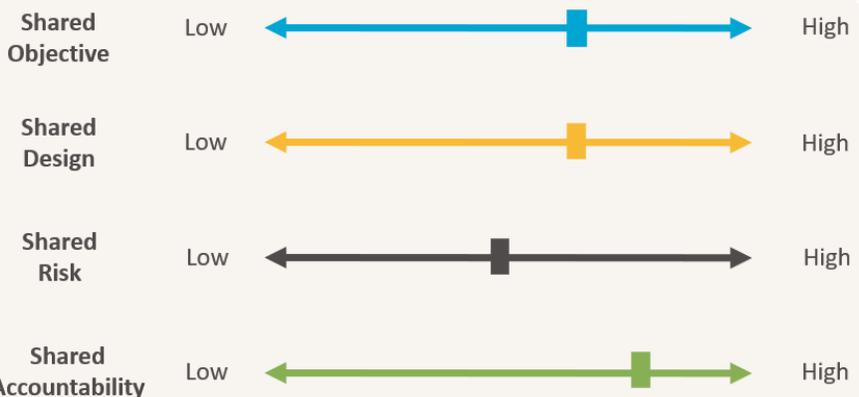
Private Partner: Airport International Group (consortium of six private companies from France, UAE, Kuwait, Jordan, Greece and the UK)

Private Motivation: Market entry/expansion

Shared Objective: To increase the passenger throughput and improve the competitiveness of Jordan's airports

The Queen Alia airport is Jordan's principal domestic and international airport, accounting for more than 97% of the country's air traffic. However, the airport was previously unable to efficiently accommodate the 7% annual growth in air traffic, owing to capacity constraints. The government did not have sufficient funds to revamp the airport to increase its throughput capabilities, and thus solicited bids from the private sector to deliver on such a project in 2007. Airport International Group was awarded a 25-year concession to refurbish and operate the airport, with 54.58% of revenue generated being split with the government. In 2013, the new terminal opened under the consortium's management, and the Queen Alia airport has been consistently ranked among the top airports in the Middle East. The project was projected to cost a total of \$675 million and generate 23,000 new jobs over its lifespan.

Shared Value Key Attributes Mapping:



Sources:

International Finance Corporation (2009).
Leigh (February 28, 2017).

2a. Catalytic Action for Market Shaping: Joint Venture Model

Catalytic Action for Market Shaping: Joint Venture Model, Non-Health Example

Project: Telecommunications joint venture in Indonesia

Public Partner: Telkom Indonesia (public-owned state enterprise)

Public Motivation: Market failure for product development or availability

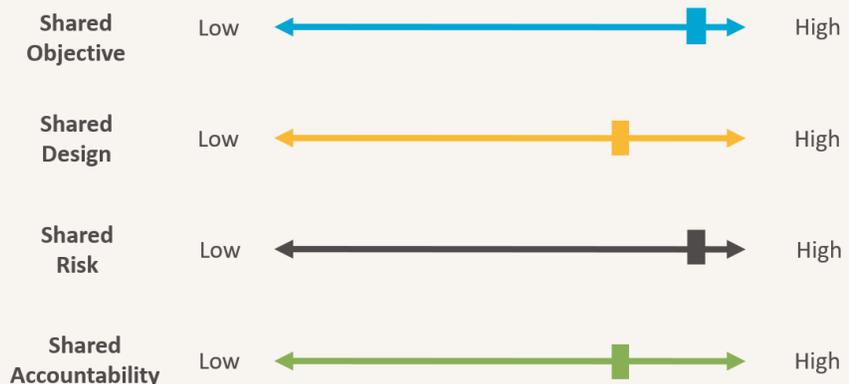
Private Partner: Telstra (an Australian telecommunications company)

Private Motivation: Market entry/expansion

Shared Objective: To expand the availability of telecommunications services available to Indonesians.

Despite having a large and growing mobile phone customer base, Indonesian network services provided by the state telecommunications enterprise Telkom Indonesia were far more limited than as seen in other countries. In 2014, Australia's largest telecommunications company Telstra signed a memorandum of understanding with Telkom Indonesia for a joint venture to provide network applications and services in Indonesia. The network services, including cloud services, unified communication, and enhanced security offerings, were to be tailored to the Indonesian market and be branded as TelkomTelstra, with its own website and offices in Jakarta. This venture allows Telstra to enter the Indonesian market and tap into the existing customer base of Telkom Indonesia, while simultaneously freeing up capacity of Telkom to direct its public resources towards its ongoing operations.

Shared Value Key Attributes Mapping:



Sources:
Taylor (January 23, 2014).

2b. Catalytic Action for Market Shaping: Technology Transfer

Catalytic Action for Market Shaping: Technology Transfer Model, Non-Health Example

Project: Using earth imaging data to identify natural resources

Public Partner: NASA

Public Motivation: Market failure for product development or availability

Private Partner: Radar Technologies International

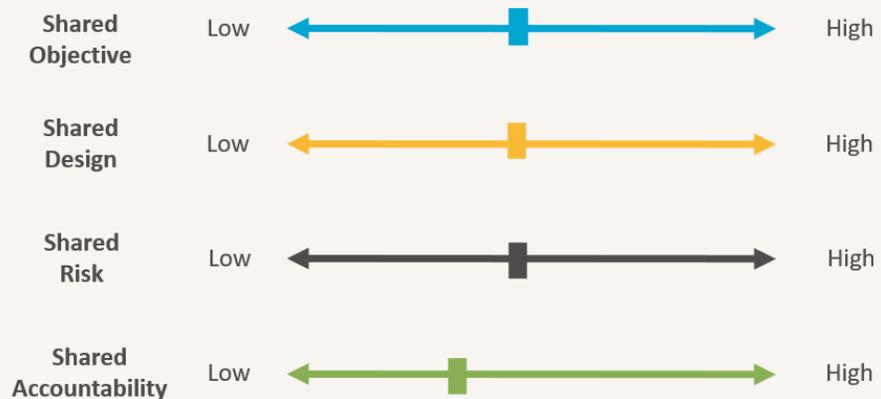
Private Motivation: Market entry

Shared Objective: To safely and reliably identify where natural resources are located underground.

NASA has obtained a huge repository of earth imaging data, using its Landsat satellites and Shuttle Radar Topography Mission technology. While these technologies are used by NASA to glean information for US agencies, Radar Technologies International identified a use for them to be used to identify natural resources, such as oil and diamonds, without having to perform expensive and potentially dangerous scoping assessments. Through NASA's Technology Transfer program, in which private companies can pay to access the technologies developed for space missions, Radar Technologies International was able to capitalize on this technology to safely and reliably find resources for extraction in the Congo.

Shared Value Key Attribute

Mapping:



Sources:

Pierce (April 27, 2017).

Space Technology Mission Directive: Technology Transfer (n.d.).

3a. Systems Strengthening – Supply: Contracting-In Model

Systems Strengthening – Supply: Contracting-In Model, Non-Health Example

Project: Concession Schools in Bogotá, Colombia

Public Partner: Mayor of Bogotá, Colombian Ministry of Education

Private Partner: Private education companies, private foundations

Public Motivation: Service delivery issues (access, coverage and/or quality)

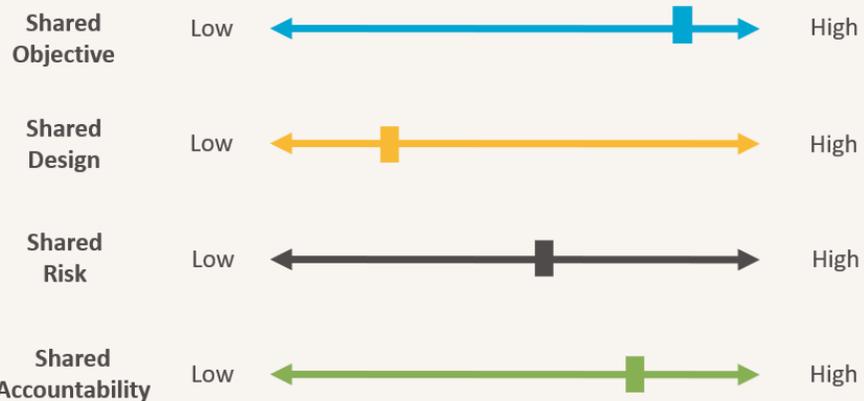
Private Motivation: Generating social/public value

Shared Objective: To broaden the coverage and quality of basic education in low-income areas of Bogotá.

In 1999, the city of Bogotá launched “Concession Schools” in 25 existing public schools for a period of 15 years. Under the program, private school operators took over the education of the enrolled students. Each school was free to manage its own staff and manage its education program while committing to meet established performance standards. Over 25,000 students were educated over the course of the project. Concession schools were found to have lower dropout rates as well as slightly higher test scores than students in traditional public schools.

Shared Value Key Attributes

Mapping:



Sources:

Barrera-Osorio (2007).
LaRocque (2005).

3b. Systems Strengthening – Supply: Contracting-Out Model

Systems Strengthening – Supply: Contracting-Out, Non-Health Example

Project: Waste collection in the City of Hamilton, Ontario

Public Partner: City of Hamilton

Public Motivation: Service delivery issues (access, coverage and/or quality)

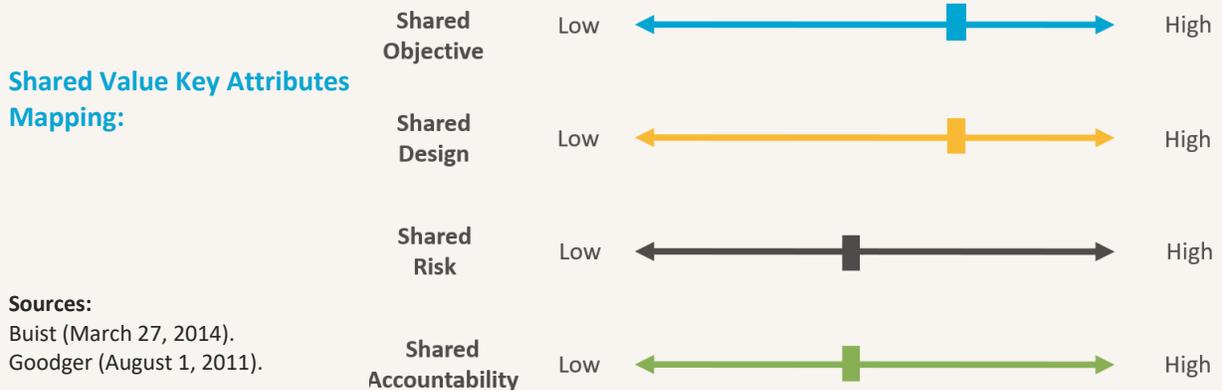
Private Partner: Green for Life Environmental

Private Motivation: Market entry/expansion

Shared Objective: To reduce the cost of waste collection services for 165,000 residents.

In 2001, six previously separate municipalities came together under the newly amalgamated City of Hamilton. Each municipality had previously had its own system of waste management with different processes and standards in place. With new districts to serve, the city decided to contract-out recycling services to a private company to ensure consistency across neighborhoods. Green for Life Environmental, a privately held corporation, won the bid to collect recycling from residents on behalf of the city of Hamilton.

The city maintains control of service delivery without the capital and operating costs required to maintain a city-wide waste collection fleet. In return, Green for Life Environmental collects an annual fee from the city for its services.



3c. Systems Strengthening – Supply: Training/Knowledge Sharing Model

Systems Strengthening – Supply: Training/Knowledge Sharing, Non-Health Example

Project: Improving the water delivery system of Trinidad and Tobago

Public Partner: Government of Trinidad and Tobago, the Water and Sewage Authority (WASA)

Public Motivation: Service delivery issues (access coverage and/or quality)

Private Partner: Seven Trent Water International and Tarmac Construction Caribbean Limited

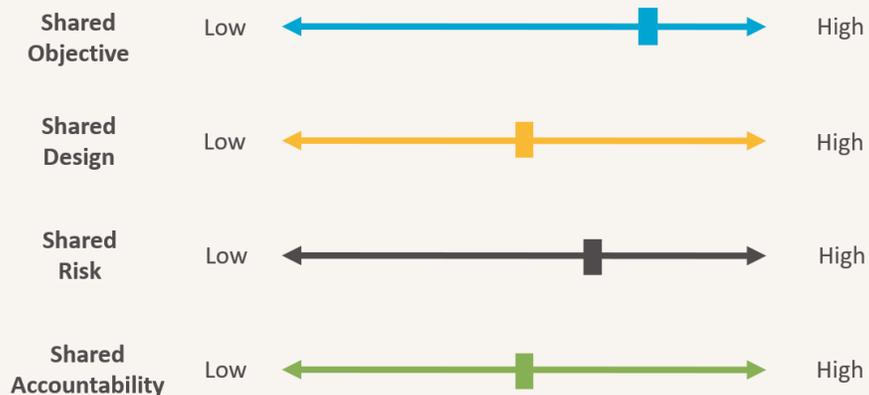
Private Motivation: Market entry or expansion

Shared Objective: To improve water delivery service to an expanded customer base and help WASA achieve financial and operational self-sufficiency.

Water services are provided to Trinidad and Tobago through the Water and Sewage Authority, which had experienced a progressive deterioration in customer service in the mid-1990s. A large proportion of customers were experiencing significant water outages, and economic restrictions had limited public investment in WASA. It was assumed that significant capital investment would be needed to improve system performance. However, before making such an investment, the Government of Trinidad and Tobago demanded service be improved. A new management team was provided to WASA through the secondment of staff from private partners. The new leadership brought along technical and professional support for WASA staff, introducing a comprehensive training program and a new incentive bonus structure based on performance. WASA was able to meet key achievements without the long-term capital improvement investments that were anticipated. Increased environmental compliance rates were found among 75% of wastewater plants and total water production increased by 30%.

Shared Value Key Attributes

Mapping:



Source:
Nankani (January 1997).

3d. Systems Strengthening – Demand: Communications Support Model

Systems Strengthening – Demand: Communications Model, Non-Health Example

Project: The Advertising Council in the US

Public Partner: Various US Government Agencies, including US Department of Energy, US Department of Justice, US Department of the Treasury

Public Motivation: Access, coverage and/or quality issues in service delivery

Private Partner: Over 100 private advertising and media relations firms

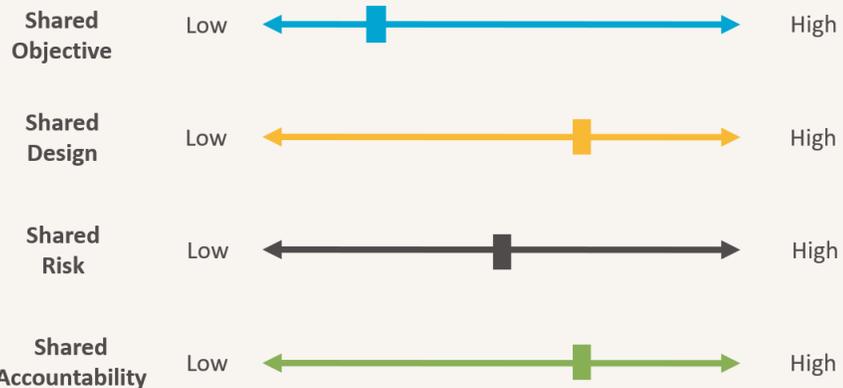
Private Motivation: Generating social/public value

Shared Objective: To identify a select number of significant public issues and stimulate action on those issues through communications programs that make a measurable difference in society.

Since its inception in 1947, the Ad Council has partnered with hundreds of media companies to distribute public service announcements across a network of over 33,000 media outlets, including TV and radio stations, print outlines, billboards, and the internet. The Ad Council receives more than US\$1 billion in donated media annually from its private partners and has focused on a myriad of issues over the course of its existence. A recent campaign entitled “Save the Food” showcased the life cycle of food and the loss of resources when it goes unconsumed. The campaign encourages Americans to make simple lifestyle changes to reduce waste in their own homes.

Shared Value Key Attributes

Mapping:



Source:
Ad Council (n.d).

4a. Policy Engagement: Policy Advocacy Model

Policy Engagement: Policy Advocacy Model, Non-Health Example

Project: Passage of the Chemical Safety for the 21st Century Act in the US

Public Partner: US Environmental Protection Agency

Public Motivation: Lack of or limited policies

Private Partners: Over 150 businesses, including the American Chemistry Council, a trade association representing over two hundred private companies, that plays a role in the manufacture, transport, storage, disposal, sale, and marketing of chemicals in the US.

Private Motivation: Generating social/public value

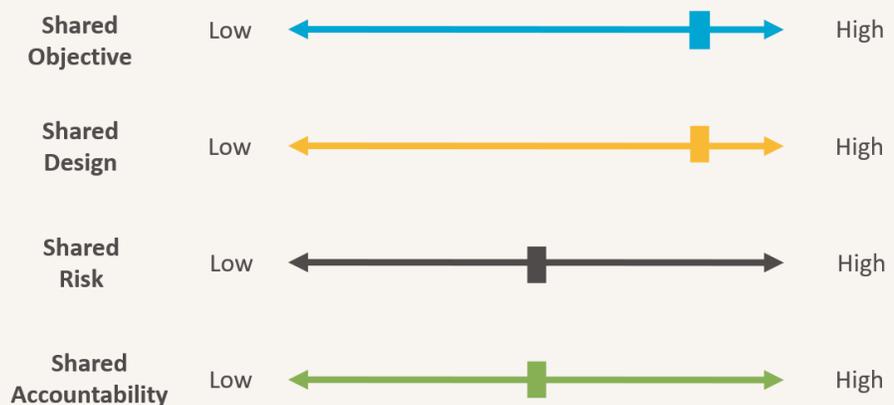
Shared Objective: To strengthen the regulation of chemicals used in consumer products in a way that supports safety, economic growth, and innovation.

Prior to the passage of the Chemical Safety for the 21st Century Act in 2016, different states had passed their own chemical laws, creating inconsistencies in how regulation was written, implemented, and enforced. This created confusion and higher administrative costs for companies involved in the industry.

Companies began lobbying Congress to introduce a single federal chemical regulation program that would simplify operations for them. At the same time, the Environmental Protection Agency recognized that in passing such a law, additional health and safety information could be codified in the regulations. The Chemical Safety for the 21st Century Act was passed with bipartisan support in Congress, with the support of private industry, environmental groups, labor organizations, and public health groups.

Shared Value Key Attributes

Mapping:



Source:

"Lautenberg Chemical Safety Act FAQs" (2016).

