MOBILIZING INVESTMENT FOR

ZERO TRANSMISSION *of* CHOLERA *in* HAITI

The opportunity for innovative finance in Haiti

SPRING 2019

USAID
FROM THE AMERICAN PEOPLE

Cholera was introduced to Haiti in 2010 in the wake of a devastating earthquake.

THERE HAVE BEEN MORE THAN

819,000

SUSPECTED CASES

9,785

ASSOCIATED MORTALITIES

In 2016, the UN expressed its regrets for the suffering caused by the cholera outbreak and stated a moral responsibility to the victims and to support the country to overcome the epidemic.

The UN has committed to a three-pronged approach to supporting Haiti in overcoming the epidemic and building sound water, sanitation, and health systems:

TRACK 1A

Intensify the immediate efforts to decrease the transmission of cholera and improve access to care and treatment.

TRACK 1B

Address the longer-term issues of access to clean water, sanitation and health-care systems.

TRACK 2

Provide material assistance and support to those Haitians most directly affected by cholera.

Re-securing Haiti as a cholera-free zone is critical for the entire Western Hemisphere, as cholera can spread across borders with human travel/migration.

Significant investment has already been made in eliminating cholera transmission in Haiti, yet **gaps in funding remain;**

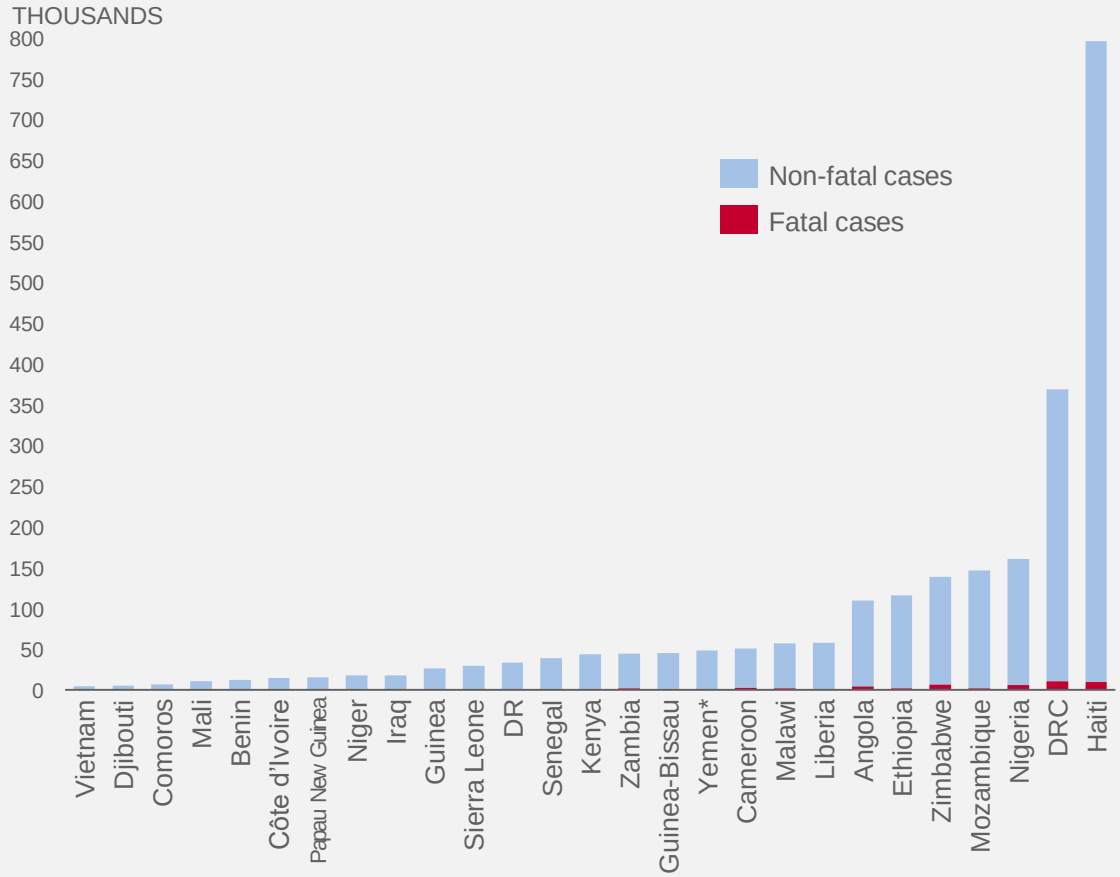
this project focuses on filling those gaps

(particularly the urgent financing gap for Track 1A), and is not intended to supplant existing efforts or funding streams.

Source: UN, "A new approach to cholera in Haiti," November 2016; Public Finance International; World Economic Forum

The cholera epidemic in Haiti has been one of the worst in modern history

Cumulative cholera cases by country 2000-2016 •

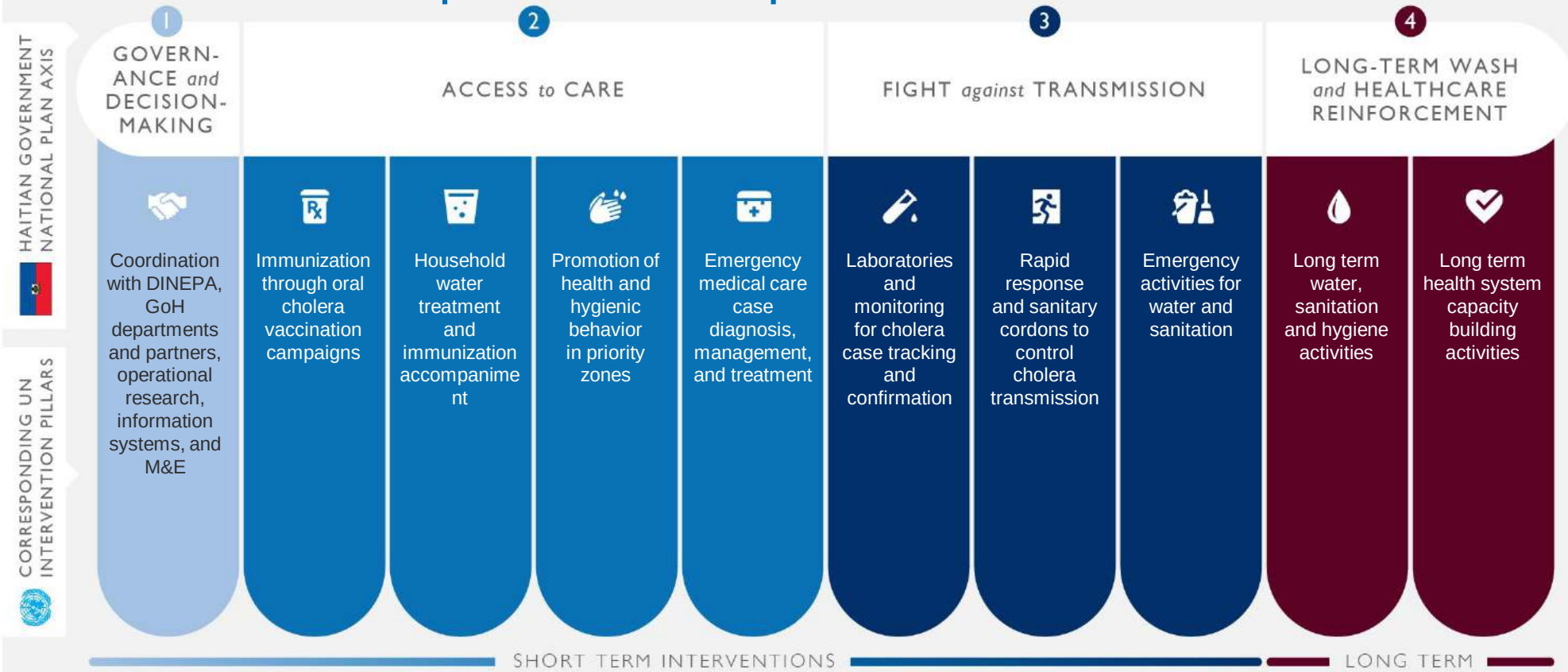


2010-Present: Haiti Cholera Epidemic

- Cholera was introduced in Haiti following the 2010 earthquake
- There have been 819K suspected cases and 9,785 deaths to date
- The rapid spread was primarily due to limited access to safe water and sanitation
- The immediate response to the outbreak was insufficient to quickly and effectively contain secondary transmission
- The UN has expressed regret for the suffering caused by the cholera epidemic and has passed several resolutions affirming its commitment to ending the transmission of cholera
- Since implementation of a national strategy began (2012), there has been significant progress against both incidence and case fatality rates

*Created with the most recent data available across countries; since 2016 Yemen has had more cases than Haiti ~1M Source **1** WHO, "Cholera Country Profile: Haiti," 2011 **2** WHO, "Cholera: Fast Facts" 2018 **3** WHO, "Cholera Weekly Epidemiological Record,"2011 **4** NPR. Rapport du Réseau National de Surveillance Cholera, 2018 **5** WHO Global Health Observatory data repository, 2016

In 2012, Haiti began a national plan to eliminate cholera – the last phase of this plan launched in 2018



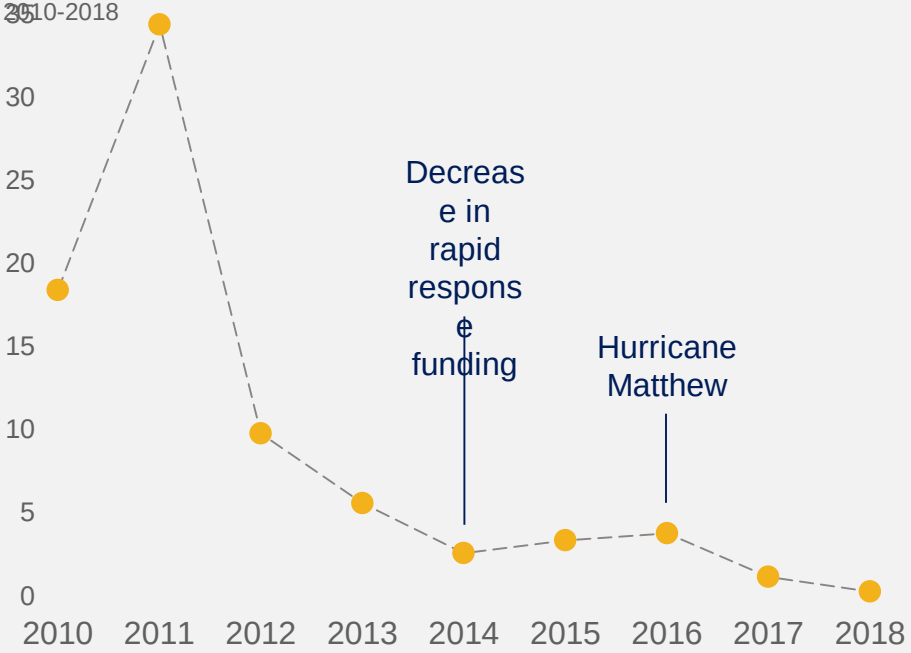
Partners, including the United Nations, have **aligned their strategies** for the elimination of the transmission of cholera to each axis of the Government of Haiti's National Plan for the Elimination of Cholera

1 Plan National D'Elimination du Cholera, Developpment du moyen term (PNEC-MT), Juillet 2016-Decembre 2018 and Jan 2019-2022; Reunion Strategique Cholera, 2018 **2** UN Secretary General Approach, 2016

The interventions are working – since 2011, the incidence rate of cholera in Haiti has drastically declined

The rate of cholera incidence in Haiti has reduced more than 96 percent since 2011.

ANNUAL CHOLERA INCIDENCE RATE PER 1000 PERSON-YEARS, HAITI, 2010-2018



Current State *of the* Epidemic

Incidence of suspected cholera cases has declined from the peak of the epidemic (2011) from 34.4 to 1.1 cases per 1000 person-years (2017); with the lowest annual incidence to date in 2018[1,2]

ELIMINATION *IS* POSSIBLE

Cholera epidemics have been genetically traced to an origin, suppressing theories of local occurrence and suggesting elimination is possible with containment of the bacteria introduced to a region.[3]

The Global Cholera Task Force has outlined a integrated approach for elimination.[4]

"Elimination of cholera is within reach, but we need to maintain the momentum."

1 MSPP surveillance data, 2018 **2** Rapport du Réseau National de Surveillance Cholera, 2018 **3** Domman et al. Integrated view of Vibrio cholerae in the Americas. Science 2017. 358(6364): 789-793 **4** Global Cholera Task Force, 2017.

The partners co-implementing this plan are well established international organizations with strong track records

ORGANIZATION	Center for Disease Control	GHESKIO	PAHO	UNICEF	Zanmi Lasante *(Partners in Health)*
RELEVANT ACTIVITIES	*coordination, immunization laboratories & monitoring*	*immunization, home water treatment & chlorination systems, promotion of health & hygienic behavior, emergency medical care*	*coordination, immunization, emergency medical care, laboratories & monitoring*	*coordination, immunization, home water treatment & chlorination systems, promotion of health & hygienic behavior, laboratories & monitoring, rapid response, emergency activities for water & sanitation*	*coordination, immunization, home water treatment & chlorination systems, promotion of health & hygienic behavior, emergency medical care*
TRACK RECORD	CDC plays a critical role in building public health infrastructure for surveillance and reporting and funds and provides technical assistance to MSPP.	GHESKIO is a critical and technically skilled implementing partner. They are well-equipped and willing for their role in these interventions to be expanded, if required.	PAHO plays a critical role in immunization, surveillance, and support of emergency care.	UNICEF has a strong track record of implementation in Haiti and cholera / WASH. UNICEF also has a strong management history with its team of implementing partners.	Zanmi Lasante is a strong, technically skilled implementing partner with a long history of working in Haiti.

Intervention delivery also involves several ministries of the Haitian government who would work closely with NGO partners to implement the strategy

Source: Implementing partner data

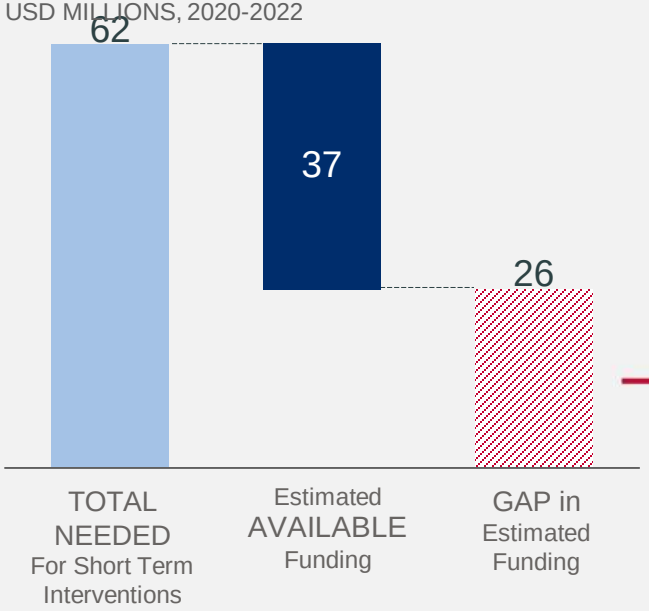
The cost for the final phase of the Haitian Government's National plan is ~$397M from 2019-2022

Source: Government of Haiti Long-term Plan, Dalberg and UNSEO analysis

Of this ~$62.4M, there is a gap of ~$26M urgently needed for short term interventions for 2020-2022

Gap in funding for the elimination of cholera transmission, short term interventions[1]

USD MILLIONS, 2020-2022



INTERVENTION PILLAR	ESTIMATED FUNDING GAP
Coordination	$1.5
Immunization	$0.0[2]
Household water treatment and chorination	$3.7
Promotion of health and hygienic behavior	$2.5
Emergency medical care	$4.0
Laboratories and monitoring	$2.3
Rapid response	$12
Emergency activities for water and sanitation	$0

TOTAL $26M

1 This is the preliminary assessment of the funding gap for Short Term Intervention Activities; Subject to change pending the GoH's finalization of the long-term plan and additional information from implementing partners and funders **2** Immunization interventions are planned to be completed by the end of 2019 Source: Implementing partner data; Dalberg and UNSEO analysis

A pay-for-success mechanism would be an appropriate solution to fill the ~$26M gap based on key criteria

Cholera interventions are well understood and have clear links to outcomes in Haiti.

There is both a strong global evidence base, and track record to date in Haiti, which supports the efficacy of the current intervention strategy in eliminating the transmission of cholera.

There are well-established imple- menting partners actively working in Haiti.

The key implementation partners are well-established international organizations (UNICEF, GHESKIO, Zanmi Lasante, PAHO, and CDC), all of whom have a clear track record of performance in the fight against cholera in Haiti.

There are clear, measurable, and attributable metrics.
Suitable metrics linked to intermediate outcomes are already being measured for most intervention pillars. However, additional investments in monitoring and evaluation are required before full program launch.

Political will exists from the Government of Haiti.
Clear leadership support exists for results-based approaches in Haiti. Moreover, there are likely opportunities to involve key ministries in both financing and implementing the ultimate program.

Program size is in line with previous pay-for-success mechanisms.
The portion of the financing gap for short-term interventions is in line with the average for World Bank healthcare PFS contracts *(2007-present).*

Source: Dalberg Analysis

Supporting this strategy could have wide-reaching benefits including cost-savings and health impact

EXISTING CHALLENGES

INTERVENTION IMPACTS

Additional Health Impact

Haiti has the highest mortality rate due to unsafe water and sanitation in Latin America and the Caribbean

24:1

HAITI VS. REGIONAL AVERAGE*

After the response to Mexico's cholera outbreak in early 1991, under-five mortality from diarrheal diseases dropped by 17.8% between 1990 and 1993, due in part to the promotion of access to potable water, the widespread use of oral rehydration therapy, and the strengthening of sanitation systems.[2]

Contribution to SDGs

The Haitian population practices nearly

20%

OPEN DEFECATION**

In Nepal, a randomized trial examined coupling hygiene behavior change interventions with immunization programs and found that it increased immunization coverage, improved key hygiene indicators *(e.g., handwashing with soap and water, toilet use, and food hygiene),* and reduced the prevalence of diarrhea in children under one by 15%.

Cost Savings

Cholera has an estimated annual cost of

$2B USD

globally representing a significant economic burden for cholera endemic countries

An analysis by the WHO found that the implementation of the Global Roadmap in the Democratic Republic of Congo, a country with endemic cholera, would lead to a 50% cost savings compared with the ongoing average yearly cost to continuously respond to emerging cholera outbreaks.***

1 UN stats, "Global SDG Indicator Database," 2018 **2** World Development Indicators **3** World Health Organization, Global Task force for Cholera Control, "Ending Cholera: A Global Roadmap to 2030" **4** Sepulveda, et al. "Cholera in Mexico: the paradoxical benefits of the last pandemic," 2006. *Average of all Latin America and Caribbean countries for which data is available, excluding Haiti; Rate per 100,000, 2016 **Percent of population in 2015 practicing open defecation was 35% Rural, 8% Urban, 19% Total ***Cost savings data not available for Haiti

It also would likely disproportionately benefit women and girls, who often bear more of the burdens of cholera

Household labor

Women and girls are more likely to do household work that increases risk of contracting cholera (e.g., fetching / treating water, preparing food, cleaning latrines).

"Carrying out these tasks puts women and girls at an increased risk of contracting cholera. Furthermore, the cholera outbreak makes these tasks more onerous, as water must be purified to drink and to prepare food."[1]

Caregiving

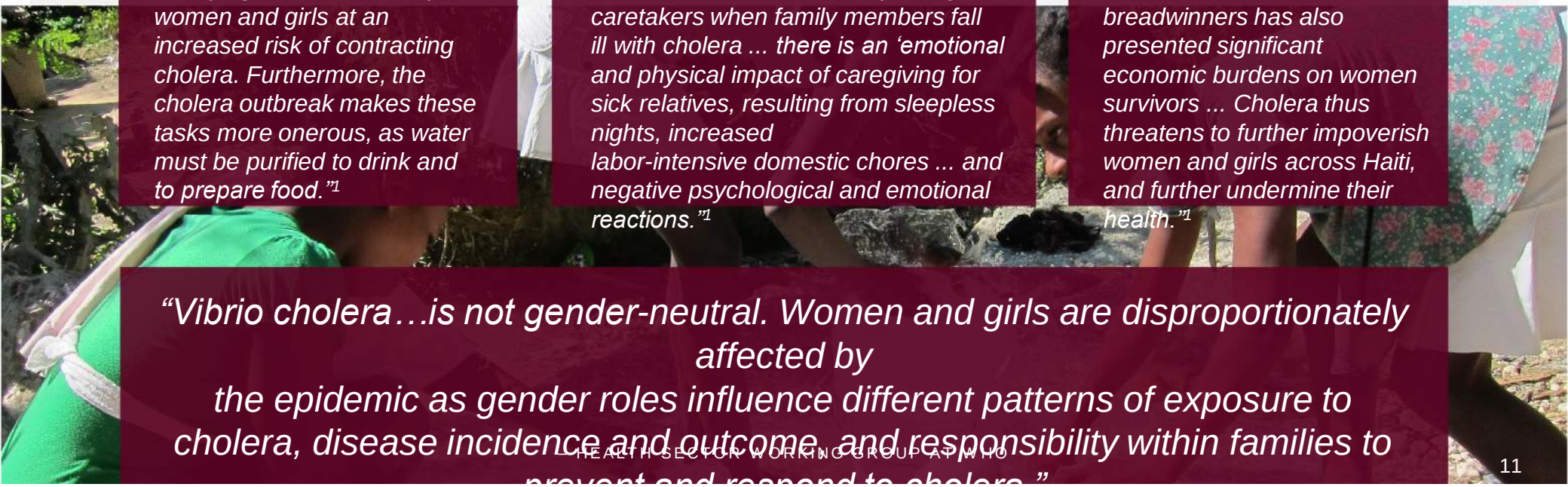
Women and girls are more likely to care for sick family members (e.g., washing clothes) than men are, which can lead to a disproportionate physical and emotional toll.

"Women are often also the primary caretakers when family members fall ill with cholera ... there is an 'emotional and physical impact of caregiving for sick relatives, resulting from sleepless nights, increased labor-intensive domestic chores ... and negative psychological and emotional reactions."[1]

Economic Burden

Cholera can increase women's economic burden by decreasing time available for income- generating activities, as leading to the death of family breadwinners.

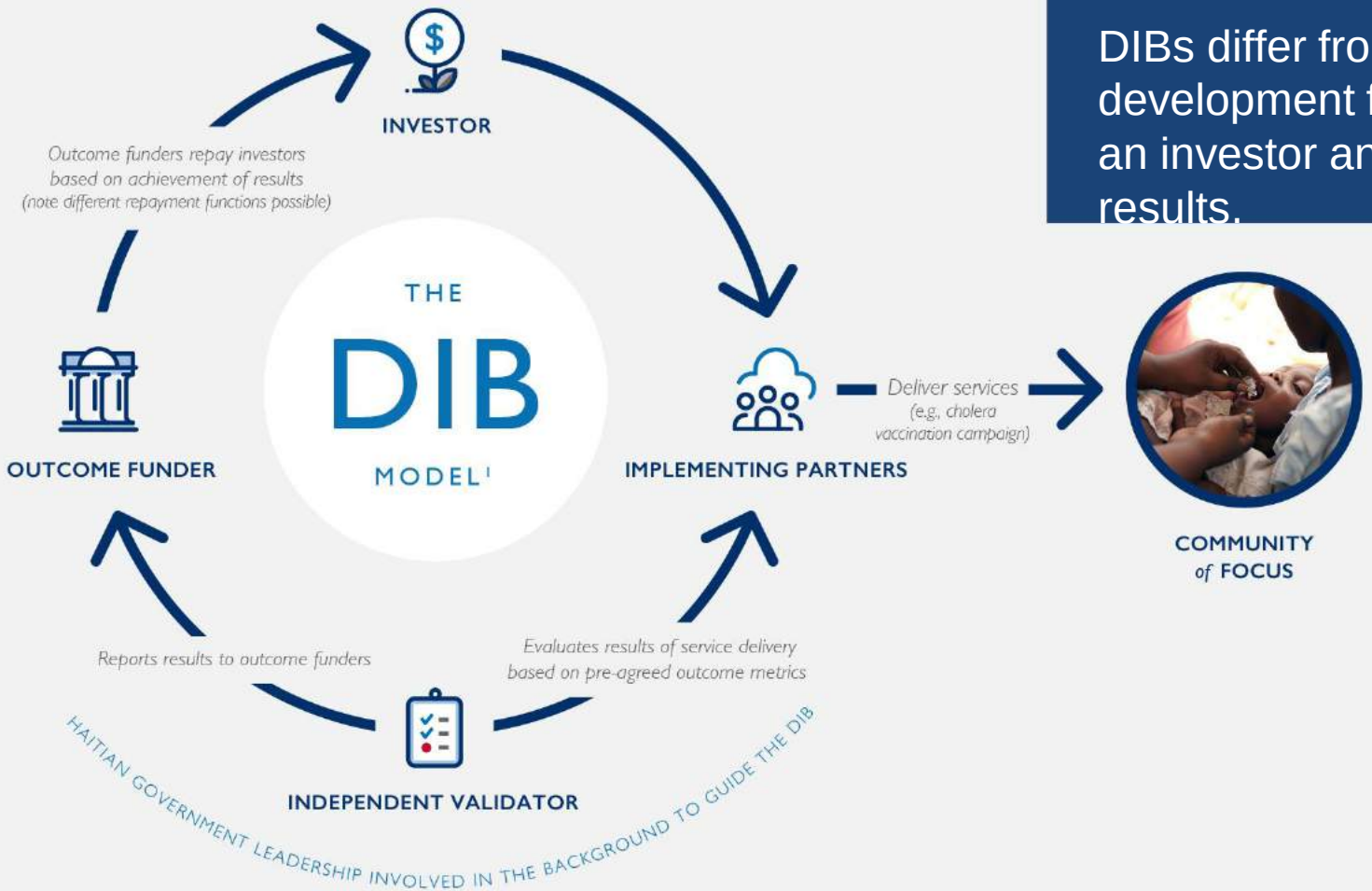
"The death of male breadwinners has also presented significant economic burdens on women survivors ... Cholera thus threatens to further impoverish women and girls across Haiti, and further undermine their health."[1]



"Vibrio cholera…is not gender-neutral. Women and girls are disproportionately affected by the epidemic as gender roles influence different patterns of exposure to cholera, disease incidence and outcome, and responsibility within families to prevent and respond to cholera."

1 "Review of Haiti's Report under the Convention on the Elimination of All Forms of Discrimination against Women," Bureau des Avocats Internationaux; Gender Action; Institute for Justice & Democracy in Haiti; Li, Li, Li! Read, 2016 **2** UNICEF Cholera Toolkit, 2017 **3** UNICEF Haiti Child Protection Section/GBV Program Briefing Note, 2010 **4** UNICEF data, WASH in schools, 2016 **5** WHO Briefing Note, 2017. Note: Gender-disaggregated data is not currently available for cholera cases in Haiti

A development impact bond, a type of pay-for-success model, is a promising mechanism for this context



DIBs differ from traditional development finance by including an investor and tying payment to results.

DIBs use investor capital to shift implementation risk away from the implementing partners and outcome funders and provide upfront working capital to the program.

In a DIB, an investor's repayment is dependent on the success of the program. Investor is paid by outcome funders depending on the achievement of specific program targets.

1 A more traditional time-staged pay-for-success instrument could also be used in this context **2** Instiglio social impact bond database. Source: Dalberg analysis

A DIB also has the potential to bridge the humanitarian-development divide and create new coordination platforms

Bridge the humanitarian-development divide.

A DIB could set up an alternative model of bridge financing for other cholera persistent countries where weak healthcare systems, low WASH infrastructure and diminishing humanitarian funds create funding gaps in systems that prevent the spread of cholera.

Creates a new platform for UN cooperation.

The DIB creates a replicable structure on the UN platform. The same structure could be replicated in other countries and sectors.

Supports WHO Global Taskforce for Cholera Control in its global roadmap to end cholera and reduce cholera deaths by 90%.

The DIB is based on a multiagency, integrated approach advocated by the World Health Organization that can be used in future outbreaks.

Shifts the narrative in Haiti towards positive opportunities.

This offers an opportunity for funders and investors to contribute to cholera elimination and advance the field

Investors

Contribute to the elimination of cholera transmission in Haiti

Earn a return on investment while building the field of impact investing and innovative finance

Explore the Haitian business and investment landscape

Help high-impact organizations adopt flexible, efficient approaches to social change

Outcome Funders

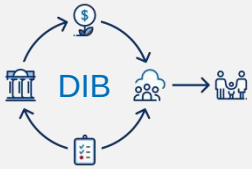
Contribute to the elimination of cholera transmission in Haiti

Build the field's learning around innovative finance

Collaborate with the private sector

Ensure scarce resources are deployed effectively and with accountability and transparency

Help high-impact organizations and governments adopt results-oriented program approaches



Source: Dalberg analysis

There are three key next steps to complete before the DIB launches in 2020

1 Confirm outcome funders and investors

2 Finalize outcome metrics and targets

3 Negotiate and finalize investment terms

DIB Launches

2019

2020

For more information, please contact a representative at USAID or the Office for the UN Special Envoy for Haiti

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