BILL & MELINDA GATES foundation

Zero Dose Learning Agenda (ZDLA)

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Gavi Zero Dose Learning Week

11 September 2024

THE ZD LEARNING AGENDA IS A SPRINT TO IDENTIFY ACTIONS BMGF AND GAVI CAN TAKE TO ACHIEVE 50% REDUCTION IN ZD BY 2030

*To reach our **overall strategic goal** in 2030…*

Restore and sustain trajectory towards 50% reduction in zero dose children by 2030

(IA 2030 target)

*We are in a 24-month sprint to answer **two core questions**…*

*How should **Gavi strategy, policy, funding and implementation** adapt to meet 2030 target?*

*What is **BMGF's comparative advantage** in accelerating progress on zero dose?*

*…Informed by work across **complementary workstreams.***

Subnational Programmatic Implementation
Identifying granular drivers of ZD and 'what works' to durably reach communities

Gavi Funding Mechanisms & Implementation
Supporting Gavi to deliver on 5.0/5.1 strategies + identifying areas for adaptation

Subnational Programmatic Implementation

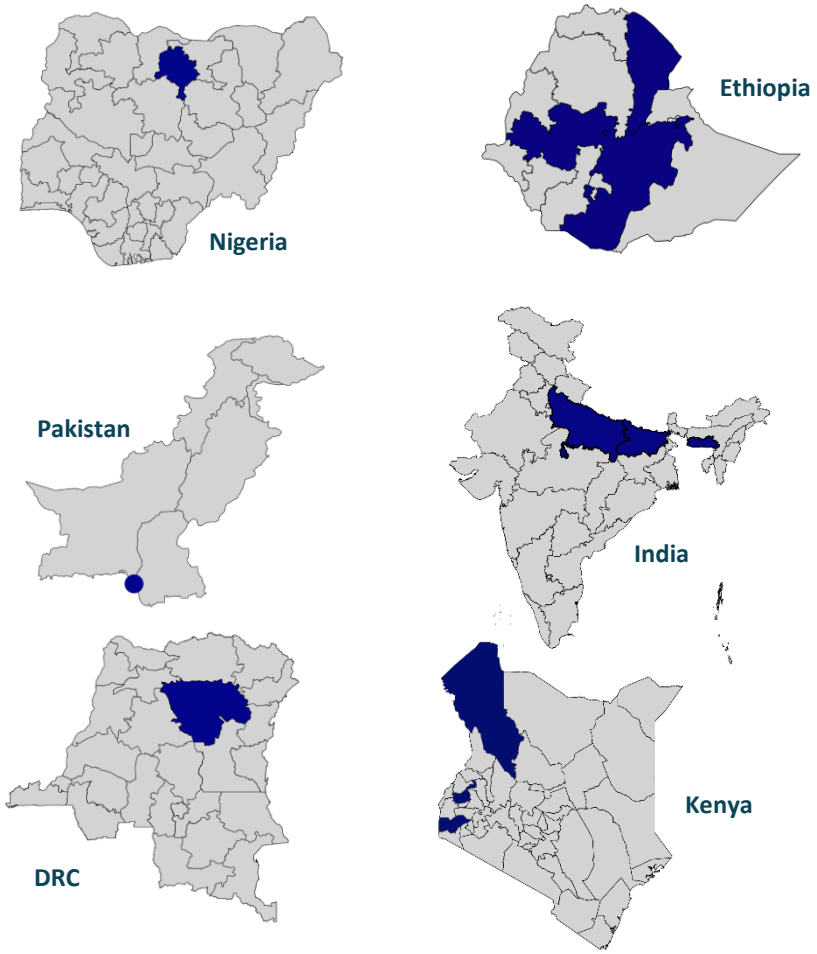
WE AIM TO DIRECTLY LEARN ABOUT THE ROOT CAUSES FOR ZD AND TEST INTERVENTIONS IN SUBNATIONAL AREAS IN 6 COUNTRIES

Approaches vary based on partner and context, but all projects are:

- Diagnosing **drivers and root causes** of ZD
- Developing **interventions through direct engagement** with caregivers, community leaders, health workers and government officials
- Working in **iterative cycles to test and refine interventions**, building on past learnings
- Emphasizing **gender considerations**
- Capturing **costing** information

Looking for indications* of this leading to **novel, better-targeted and effective programming?**

We are locating projects in sub-national areas with high ZD burden



*Note: We are **NOT** expecting to be able to measure ZD coverage impact.*

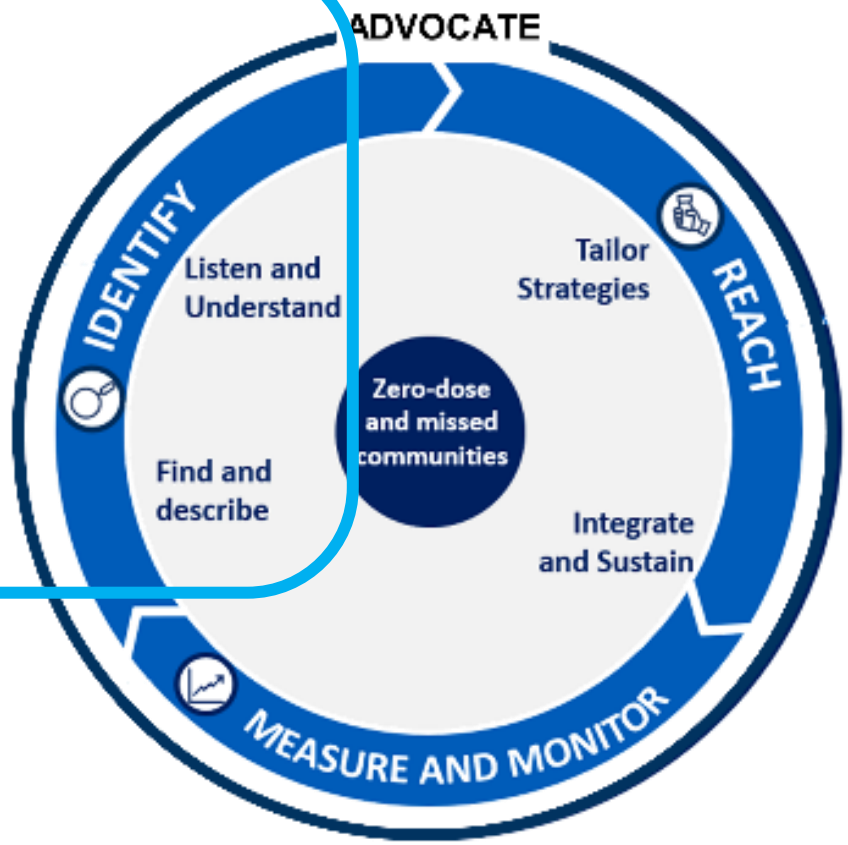
31 SUB-NATIONAL LOCATIONS

Country	ZDLA team	Sub-national location(s)	# of ZDLA sites	Urban	Rural	Rural/ Remote
DRC	PATH Living Labs	Tshopo province	5 health zones (admin 2)			Yes
Ethiopia	CHAI	Addis, Afar, and Oromia regions	3 woreda (admin 3), 1 in each region	Yes	Yes	Yes
India	JSI	Bihar and UP states	6 UPHCs, 2 in Bihar and 4 in UP	Yes		
India	IHAT	UP state	4 blocks (admin 3)		Yes	
India	OnionDev Technologies	UP state	1 district (admin 2)		Yes	
India	CHAI	Bihar and UP states	4 districts (admin 2), 2 in each state		Yes	
Kenya	PATH Living Labs	Homa Bay, Turkana, Kakamega counties	3 sub-counties (admin 2), 1 in each county		Yes	
Nigeria	Solina (McK), CHAI & Datharm	Kano state	3 LGAs (admin 2)	Yes	Yes	
Pakistan	Impetus	Karachi division	3 Super-High Risk Union Councils (admin 5)	Yes		

Most ZDLA sites would not be considered currently fragile or conflict contexts

MOTIVATING HYPOTHESES OF THE ZD LEARNING AGENDA

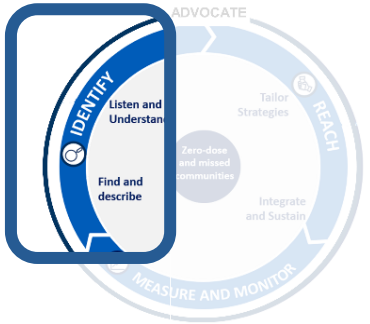
Current ZD identification methods are **insufficiently granular** and do not consider the full range of drivers (e.g., gender, intent, other needs) – **failing to get to the "why"** of ZD children.



Interventions to reach ZD children are **insufficiently tailored to local drivers and contexts,** leading to **ineffective and/or unsustainable** interventions.

ZD strategies are often **nationally-driven and inflexible** – with few mechanisms for measurement, review and iteration leading to '**cookie cutter' approaches** that fail to reach ZD children.

ZD DRIVERS LEARNING QUESTIONS



Question(s)	Status
What are **drivers and root causes of ZD** in a given subnational location?	Preliminary cross-site findings available – more to come soon
The degree to which **ZD drivers and their causes vary (and why) across subnational locations**	
How **gendered factors** occur and/or are experienced	
If - and how - the LxD approaches to drivers analysis, including the direct engagement of communities, **lead to novel insights about drivers compared** to existing approaches (e.g., Gavi EAF/HSS).	Too early to tell
If - and how - the ZDLA drivers analysis approach(es) **lead to different interventions** compared to existing approaches.	
If – and how – the systematic application of continuous learning principles, approaches, and processes **contribute to a more actionable, locally owned, and potentially effective understanding of drivers** over time?	

DRIVERS DATA COLLECTION

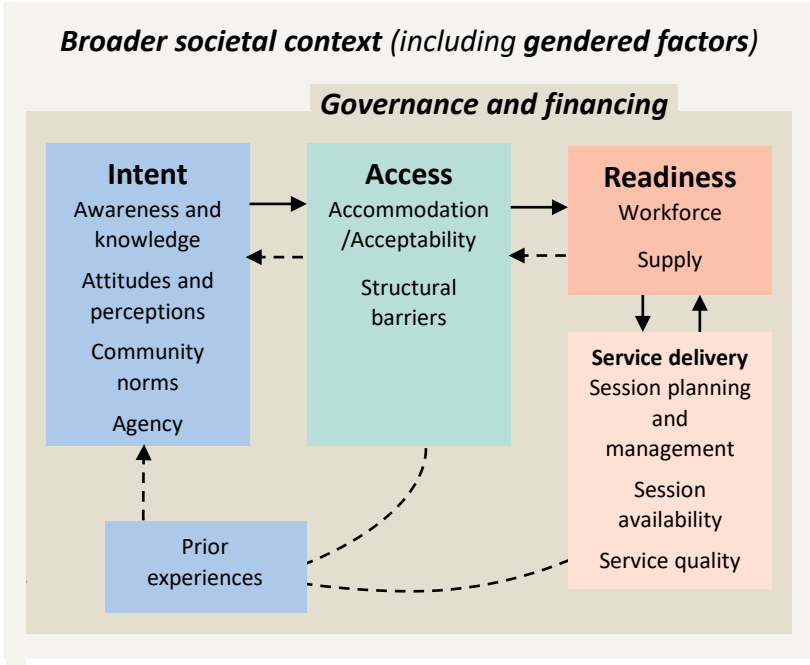
- Primary & secondary data
- Service delivery
  - Administrative service delivery data (e.g., HMIS) with spot checks for validation
  - Healthcare worker perspectives
- Caregiver perspectives
  - Primary data (surveys, interviews, or focus groups)
  - All focused on the mothers, others also collected data from fathers and mothers-in-law

INITIAL ZD DRIVERS SYNTHESIS APPROACHES

ZDLA has used the **EGH Vaccine Delivery Framework**

Drawing key elements from the UNICEF Journey to Immunization, BeSD Framework, and other frameworks, initial synthesis approaches have sought to conceptualize ZD drivers along a **'caregiver's journey to immunization'** – and how these drivers and their root causes may be contributing to ZD

Preliminary draft schematic visualizing driver domains from more of a journey-based lens



Intent | Access | Readiness

WHAT ARE DRIVERS AND ROOT CAUSES OF ZD ACROSS SUBNATIONAL LOCATIONS?

PRELIMINARY CROSS-SITE FINDINGS

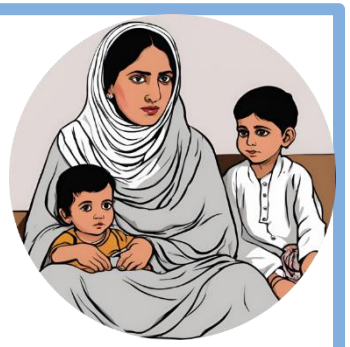
- Most ZD families live in contexts of **multiple deprivations and vulnerabilities** shaping day-to-day experiences of ZD caregivers and the environments in which HCWs provide services
    - Any additional hurdles can have cascading effects for caregivers, HCWs, and the broader community or local health system – highlighting the **importance of understanding both experienced challenges *and* their root causes from multiple perspectives in a given context**

- Across sites, **reported experiences by ZD caregivers most closely related to intent and access**; however, such **challenges often can be traced back to readiness** – specifically, gaps in health system capacities and the delivery of accessible, person-centered services

DRAFT

JOURNEY TO IMMUNIZATION

Rabia
Karachi, Pakistan



Rabia, a mother of two, **migrated from Balochistan** to Manghopir with her husband and his family. She belongs to a close-knit Balochi community that maintains strong cultural ties and values.

Both of her children were **born in unregistered private facilities that don't offer childhood immunization**, leaving her unaware of routine immunization schedules.

When Community-Based Vaccinators (CBVs) visit, Rabia refuses to engage with them, as **her family believes they are part of a "foreign agenda" and distrusts their intentions**.

Adapted from ZDLA Pakistan team - Impetus

Zewdinesh
Addis Ababa, Ethiopia

Zewdinesh, a mother of three, is married to a daily laborer. She supplements her family's income by occasionally selling vegetables. A primary school graduate, she **faces economic hardships and limited access to health facilities**. As the primary caregiver with no time for media or socializing, and her family in the countryside, she **lacks social support**.

Although she **believes in the importance of vaccines**, her children are under-immunized due to the distance of the facility, long wait times, repeated appointments, unwelcoming health workers, and lack of transport money. Zewdinesh **needs her husband's permission and transport money** to visit health facilities.

Adapted from ZDLA Ethiopia team - CHAI

Vinita
Nalanda, India

Vinita is an ASHA worker assigned to an urban slum, **serving a population of 3,300 –well above her 1000 population target**. She works in a locality where most people practice other faiths than hers.

Before each session, Vinita visits the basti – a group of makeshift dwellings – with the goal of convincing families to vaccinate their children. Since Vinita is **unfamiliar with the community's beliefs and practices, she faces challenges in engaging hesitant families**. Sometimes these interactions become tense.

Families have rudely asked her to leave, as they were annoyed by her repeated visits. **One father accused her of coming "to make our children sick."**

Adapted from ZDLA India team - JSI

INITIAL ZD DRIVER THEMES

Intent | Access | Readiness

PRELIMINARY CROSS-SITE FINDINGS

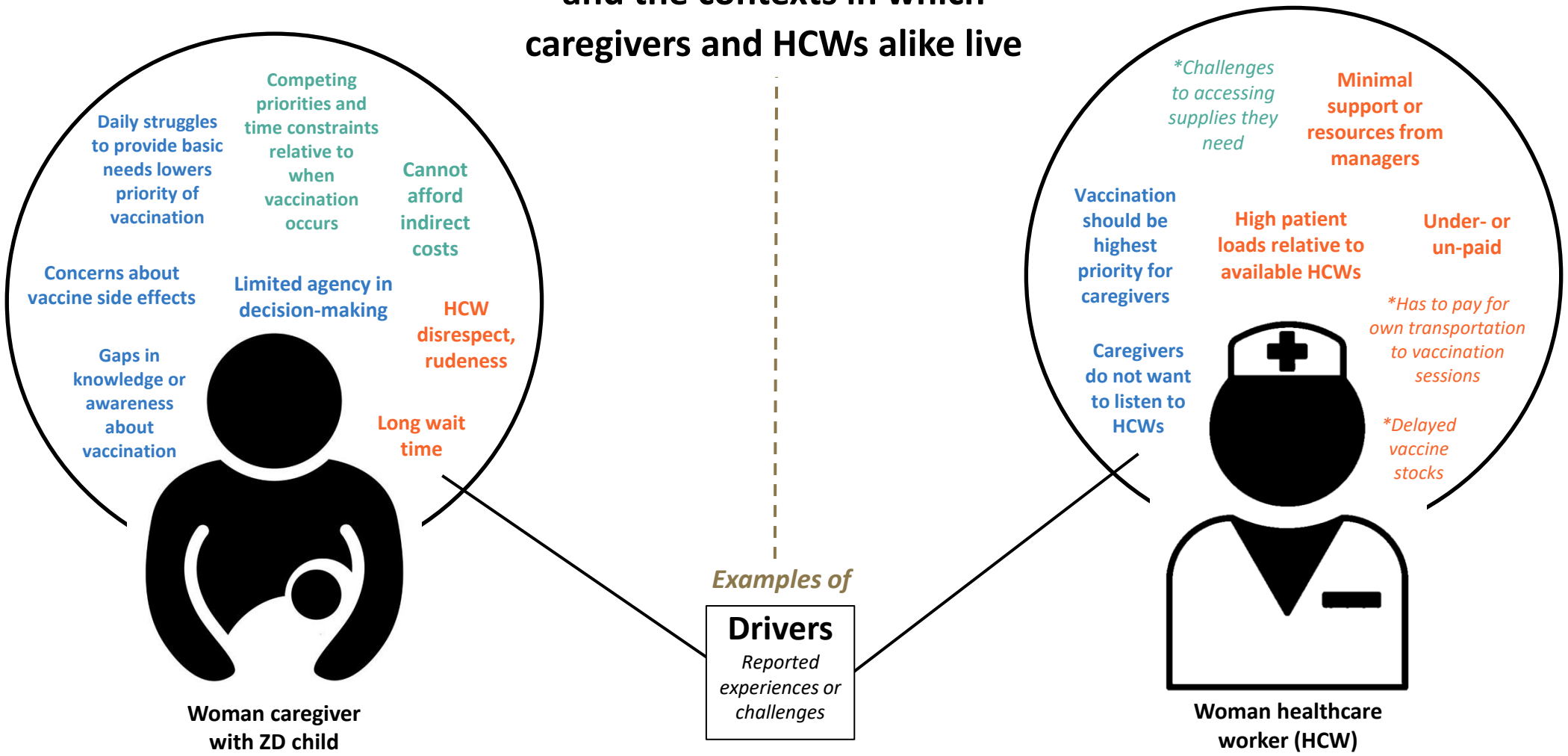
Journey to immunization

- **Gaps in knowledge or awareness of vaccination** often associated with missed health system touch-points and breakdowns in community engagement
- **Concerns about vaccination side effects** (or in some cases, safety), often rooted in capacity gaps to respond and manage
- **Caregiver agency** around decision-making and ability to seek vaccination services
- **Competing priorities or time constraints** relative to when or where vaccination services occur
- Substantial **indirect costs of vaccination** (e.g., transportation, lost income, childcare needs)
- Vaccinators and community health workers as **over-burdened, under-compensated, and minimally supported**
- In some sites, **breakdowns in basic service capacities** (e.g., session availability) and broader governance and financing

- **Underlying causes and potential entry points for intervention are likely context-specific;** ZDLA teams are now conducting focused **root cause analyses** as they transition toward intervention design and development

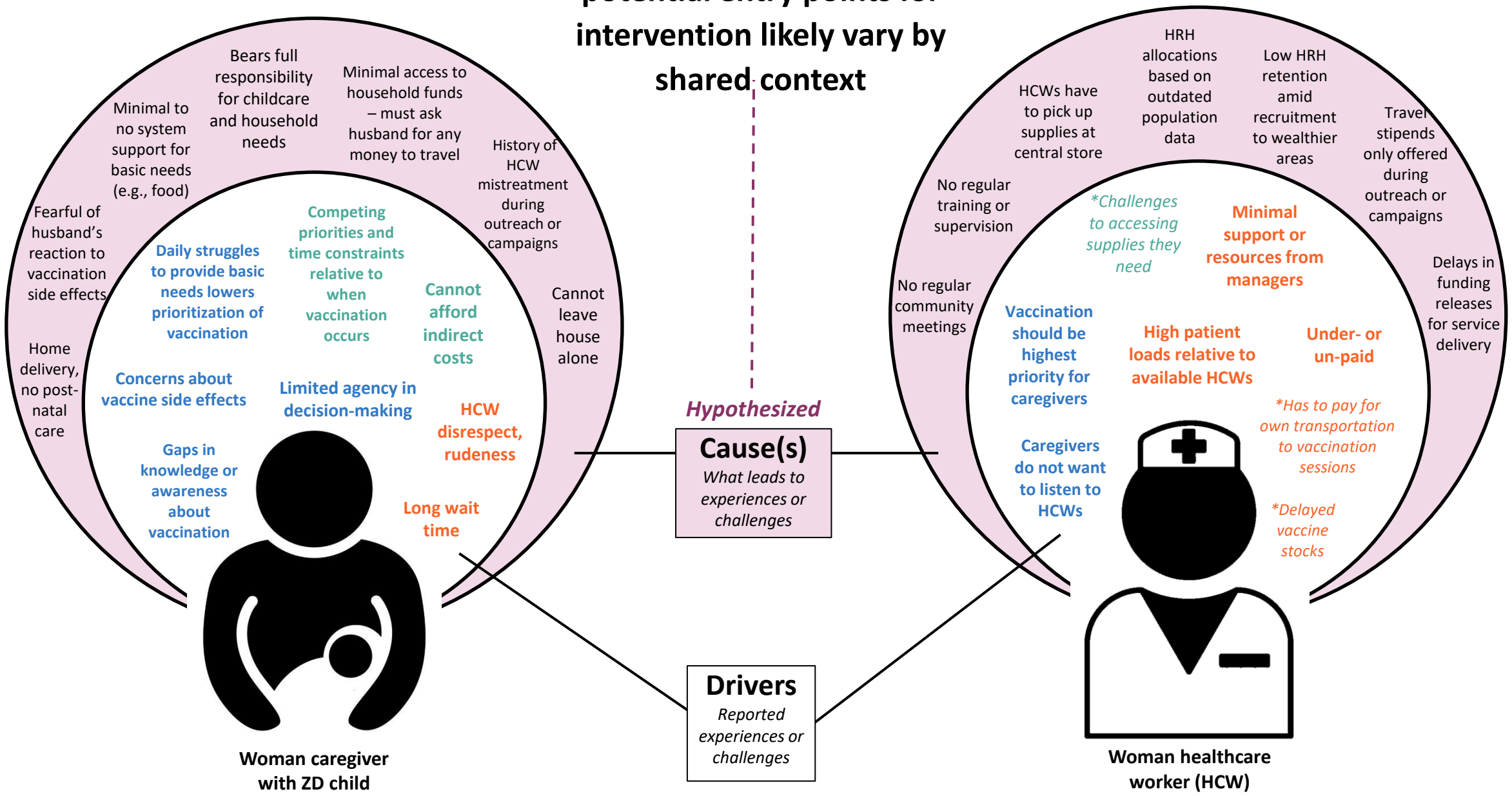
Intent | Access | Readiness

Many reported experiences or challenges around immunization that are likely **the outcomes of an interplay of underlying causes and the contexts in which caregivers and HCWs alike live**



*Italicized drivers generally were more site-specific rather than cross-cutting

Underlying causes and potential entry points for intervention likely vary by shared context



*Italicized drivers generally were more site-specific rather than cross-cutting

Shared context

Social, cultural, political, physical environments

Marginalization of certain population groups (e.g., ethnic, tribal, religious)

Widespread poverty and financial instability

Increasing numbers of migrant, nomadic, or displaced populations

Challenging terrain with bad roads and seasonal flooding

History of governance and political instability and corruption

Entrenched gender discrimination and risk of violence

Few educational or socioeconomic opportunities for women

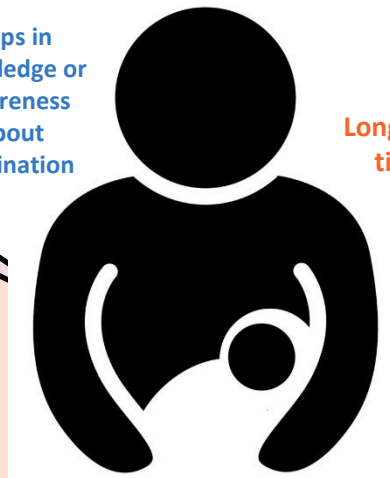
Insufficient government spending on health and social services

Cause(s)

What leads to experiences or challenges

Drivers

Reported experiences or challenges



Woman caregiver with ZD child

- Bears full responsibility for childcare and household needs
- Minimal access to household funds – must ask husband for any money to travel
- History of HCW mistreatment during outreach or campaigns
- Cannot leave house alone
- Minimal to no system support for basic needs (e.g., food)
- Fearful of husband's reaction to vaccination side effects
- Home delivery, no post-natal care
- **Competing priorities and time constraints relative to when vaccination occurs**
- **Daily struggles to provide basic needs lowers priority of vaccination**
- **Cannot afford indirect costs**
- **Concerns about vaccine side effects**
- **Limited agency in decision-making**
- **HCW disrespect, rudeness**
- **Gaps in knowledge or awareness about vaccination**
- **Long wait time**

Woman healthcare worker (HCW)

- HRH allocations based on outdated population data
- Low HRH retention amid recruitment to wealthier areas
- Travel stipends only offered during outreach or campaigns
- Delays in funding releases for service delivery
- HCWs have to pick up supplies at central store
- No regular training or supervision
- No regular community meetings
- **Challenges to accessing supplies they need*
- **Minimal support or resources from managers**
- **Vaccination should be highest priority for caregivers**
- **High patient loads relative to available HCWs**
- **Under- or un-paid**
- **Caregivers do not want to listen to HCWs**
- **Has to pay for own transportation to vaccination sessions*
- **Delayed vaccine stocks*

**Italicized drivers generally were more site-specific rather than cross-cutting*

HOW MUCH DO ZD DRIVERS AND THEIR CAUSES VARY ACROSS SUBNATIONAL LOCATIONS?

PRELIMINARY CROSS-SITE FINDINGS

Common drivers of ZD across sites - stem from **similar vulnerabilities and challenges** faced by families of ZD children and the contexts in which they live

Concerns around post-vaccination side effects (e.g., fever, abscess) especially with access to and costs of treatment, the consequences of seeking treatment on caregiving and missed labor, and the potential response from husband/spouse

Day-to-day challenges of meeting basic needs often takes priority over vaccination—e.g., the choice between caregiving for other children or daily labor versus seeking vaccinations offered during weekday mornings

Drivers and causes are **greatly shaped by context-specific nuances** – related to the intersection of factors:

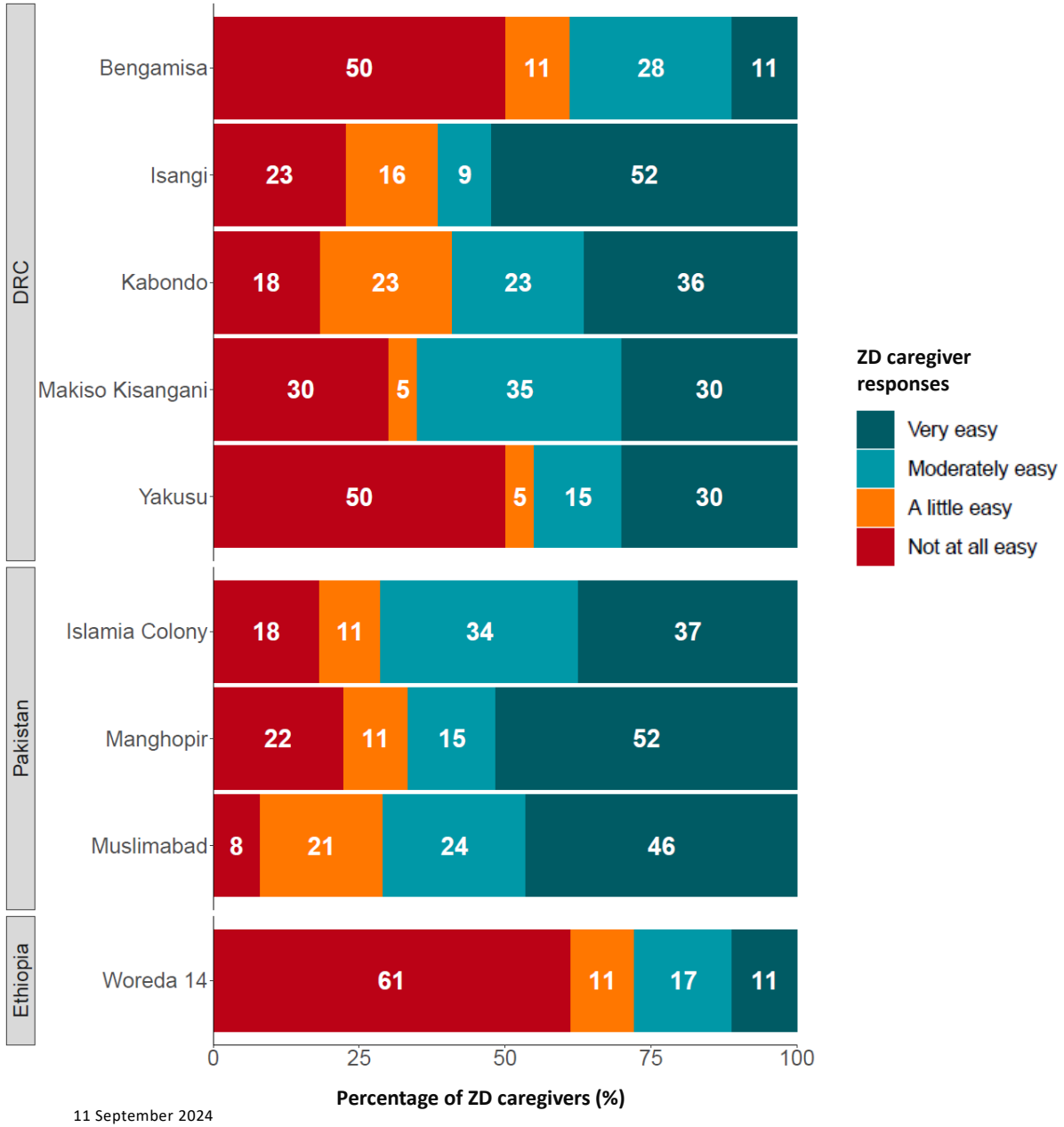
- **Demographic context**: community-level social, gender, and cultural dynamics, beliefs, practices; degree of marginalization from health care;
- **Urbanicity**: physical accessibility to vaccination services, and the reach of outreach/mobilization;
- **Health system context and culture:** reflecting current capacity for the health system to meet and adapt to local needs;

Pakistan – Manghopir, Muslimabad, Islamia Colony: Frustration with repeated visits from polio outreach workers (sometimes weekly) and feeling pressured to vaccinate their children – in the context of historical distrust with government

DRC – Bengamisa: Many ZD families practice Kitawala, a religious/resistance movement born in response to colonization. Local leaders set norms for their community and can greatly influence decision-making around vaccination

Ethiopia – Woreda 14: There is no health facility in Woreda 14 and the closest is >30 minutes away by taxi; direct and indirect costs of travel are a major barrier for ZD caregivers

Survey question: How easy is it to vaccinate your child?



11 September 2024

Comparison of vaccinator availability for select ZDLA sites

Country	Subnational area	ZDLA site (in bold)	Vaccinators per 1,000 u2 population
Nigeria	Kano	**Gabasawa***	**2.5**
		Gaya*	**2.9**
		Nasarawa*	**3.3**
India	Bihar	**East Champaran (district)**	**2.1**
		Areraj (block)	2.3
		Harsiddhi (block)	2.2
		Phenehra (block)	3.7
		West Champaran (district)	**6.2**
		Gaunaha (block)	4.9
		Majhauliya (block)	3.2
		Piparasi (block)	6.6
	Uttar Pradesh	**Lakhimpur Kheri (district)**	**3.2**
		Bankeganj (block)	3.8
		Dharora (block)	3.0
		Ramia Behar (block)	3.3
		Maharajganj (district)	**3.0**
		Mithaura (block)	2.6
		Navtanwan (block)	1.8
		Nichlaul (block)	2.4
		Ambiapur (block)	**2.5**
		Baberu (block)	**2.8**
		Manda (block)	**2.6**
		Rampur Maniharan (block)	**2.1**

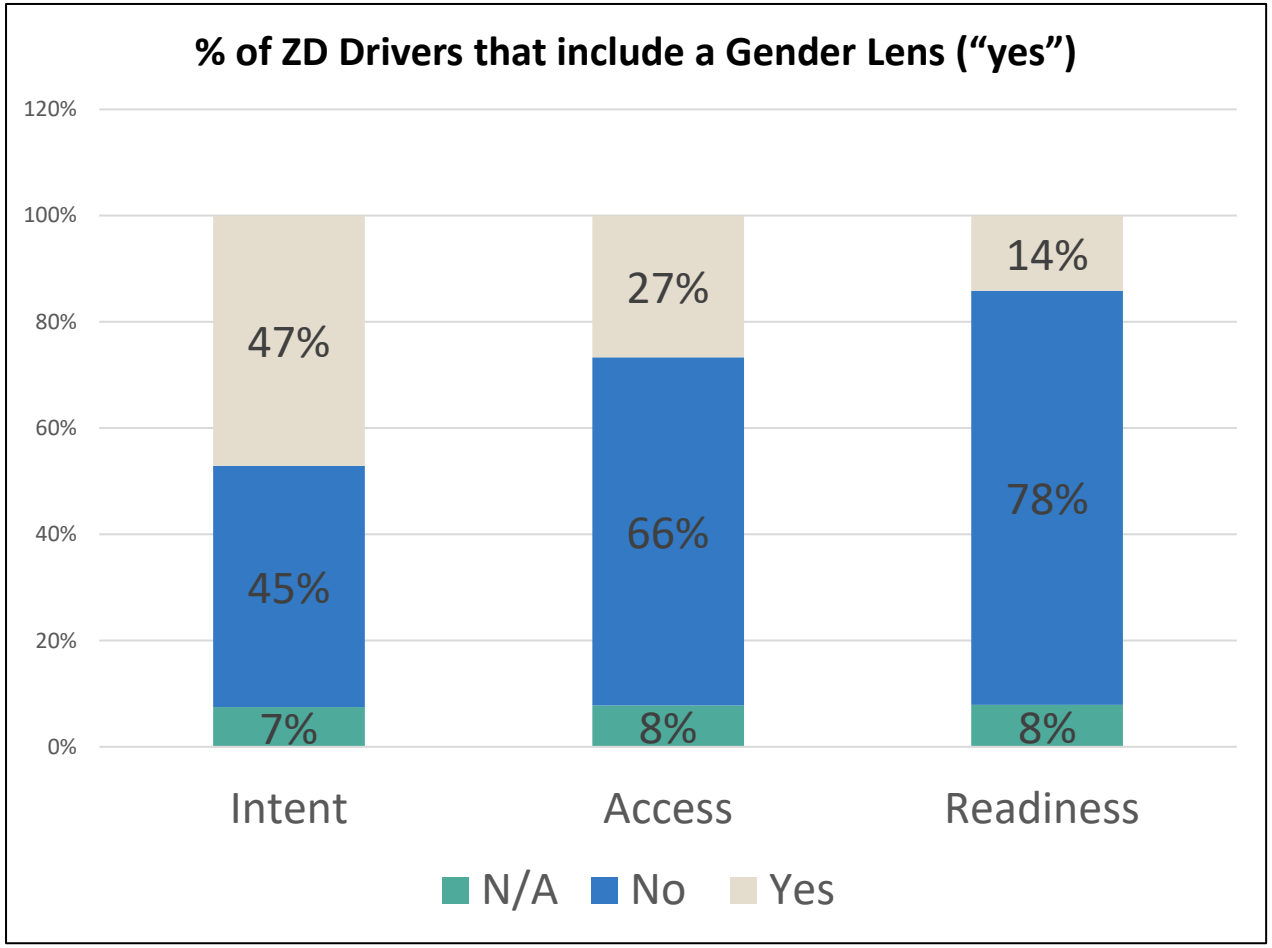
*Includes permanent, temporary, and volunteer staff

Nigeria: main vaccinator cadres are (J)CHEWs; recommendation is 5 per 1,000 under-2 population

India: main vaccinator cadres are ANMs; target is 5,000 total population per ANM (or 2 ANMs per 10,000) – no under-2 population targets currently known

HOW DO GENDERED FACTORS OCCUR, OR HOW ARE THEY EXPERIENCED?

PRELIMINARY CROSS-SITE FINDINGS



Intent

Awareness and knowledge

Gaps in knowledge and awareness related **to limited health system touch-points via ANC, delivery, and PNC**

Limited HCW engagement with fathers, who often hold final say in decisions and resource use

Attitudes and perceptions

Daily family needs like providing food, shelter, safety, etc. are prioritized, with vaccination being less pressing amid time poverty

Concerns about side effects and their management, further **compounded by worries about husband/partner's reactions**

Community norms

Expectations that **mothers are responsible for knowing vaccination logistics, seeking services, and provide post-vaccination care** – yet fathers typically hold decision-making power and resources to access services

Agency

Most women caregivers require husband's permission to seek vaccination services, and/or accompaniment outside of the home

Access

Accommodation/acceptability

Many competing demands or priorities relative to when services are offered **(e.g., responsibility for caregiving** or daily labor when weekday morning sessions are offered)

High indirect costs – **travel (and needing to ask husband for money); lost income or childcare needs**; medications and care for post-vaccination side effects

Structural barriers

Especially in more rural sites, **substantive geographic and travel barriers (e.g., long travel time, poor travel infrastructure, safety) can impede women caregivers' ability to access services** – especially relative to limited time and capacity to do so

Readiness

Workforce

Major gaps in vaccinator and CHWs availability – of which are primarily women – which leads to overburdened and often under-(or un)paid HCWs

Regular training, supervision, and support of HCWs infrequently occurs, associated with insufficient or delayed funding – potentially exacerbating challenges in how HCWs interact with caregivers

Supply

Core vaccination supplies – stocks, syringes, functional CCE – appear to be generally available in most sites; however, challenges are more present in rural areas, especially around last-mile logistics

Vaccination site infrastructure and amenities rarely are gender-responsive (e.g., appropriate menstrual health and hygiene services for women HCWs), which can affect HCW service provision

Service delivery

Session planning and management

Several sites point to gaps in data inputs and processes around effective session planning, spanning from outdated denominators and heightened internal migration to limited community engagement and review meetings

Session availability

In many urban ZDLA sites, most planned fixed or outreach sessions are being held; session availability can more variable in rural areas.

Session timing sometimes is misaligned with when women caregivers could feasibly seek services (and/or when their husbands are available to accompany them)

Service quality

Some sites indicate poor vaccine administration and safety practices, and **HCW-led counseling or support for caregivers around managing post-vaccination side effects seem to be limited in many contexts**

Intent

Prior experiences

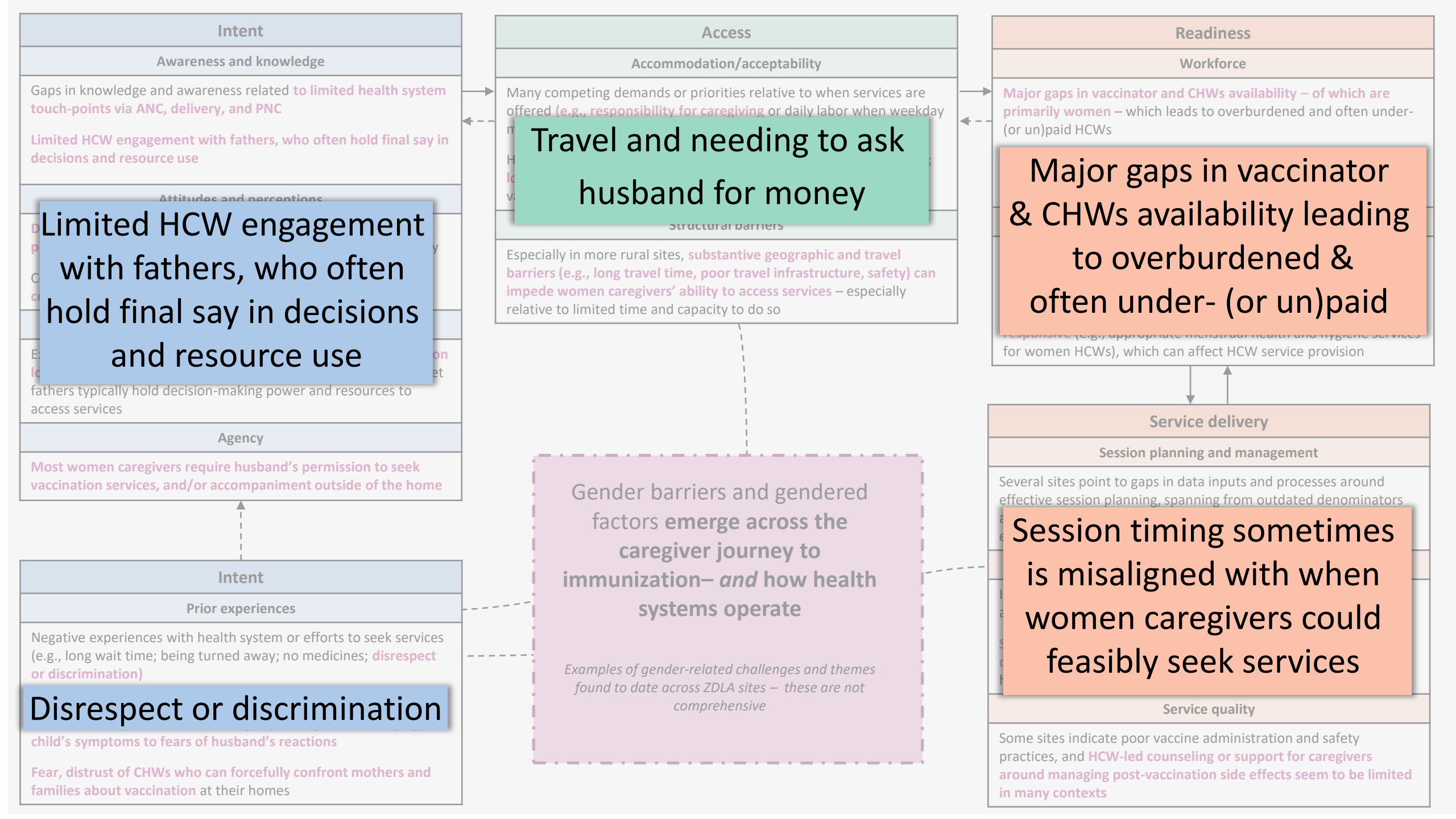
Negative experiences with health system or efforts to seek services (e.g., long wait time; being turned away; no medicines; **disrespect or discrimination)**

Costs and consequences of post-vaccination side effects from their other children (or in the community), **spanning from managing the child's symptoms to fears of husband's reactions**

Fear, distrust of CHWs who can forcefully confront mothers and families about vaccination at their homes

Gender barriers and gendered factors **emerge across the caregiver journey to immunization– *and* how health systems operate**

Examples of gender-related challenges and themes found to date across ZDLA sites – these are not comprehensive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HOW DO GENDERED FACTORS OCCUR, OR HOW ARE THEY EXPERIENCED?

PRELIMINARY CROSS-SITE FINDINGS

These challenges were experienced in a compounding manner at the intersections of poverty and social marginalization.

Who has what?

Inequitable access to assets including time, information, employment, capital

Who decides?

Lack of agency to make decisions around health and vaccinations

Who does what?

Inequitable division of labor in the household, with a disproportionate burden of caregiving on women

How are values defined?

Gendered norms, beliefs about vaccinations and their side effects

This underscores the critical **need for gender-responsive approaches**

EARLY REFLECTIONS ON THE ZDLA DRIVERS PROCESS

How is this drivers process different than typical coverage and equity assessments?

- ZD focus
- Hyper-local focus e.g. the family, community, and district-equivalent
- Emphasis on lived experiences and context-specific differences
- Aim to understand root causes
- Gender-intentional focus

What worked well

- Centering on the **caregiver perspective** was feasible and led to deeper or different understanding of the drivers and greater empathy
- **Gender-intentional** focus led to "surprising" gender insights
- Grantees open to a more **iterative and flexible approach**
- Local government and stakeholders were open to the process

What was challenging/needs work

- **Identifying ZD families** in the community (for interviews) was more difficult than expected
- **Bringing together intent, access, and readiness** – ability to look at full picture
- Over-prioritization of barriers that caregivers are aware of, which are primarily in the "intent" dimension, **missing critical "access" & "readiness" barriers**
- Further **integration of multiple perspectives is needed** (caregiver, health workers, community members, health systems managers, etc.)
- Reticence to **use existing secondary data** due to data quality concerns
- Grantees desired **more off-the-shelf tools** for data collection, analysis, interpretation

WHAT NEXT?

Finishing initial drivers analysis with a strong push to **identify root causes**

Further **explore big themes** e.g., side effects such as fever

Near-term focus on **identifying tailored and gender-intentional interventions** through inclusive processes

Implementing interventions with **connections to local immunization programs and Gavi**

Promoting real-time **continuous learning** to strengthen local autonomy for ongoing adaptation

Measuring **costs**

Testing innovative **measurement** approaches

Thank you to…

Community members, healthcare workers, grantees, consultants, Exemplars in Global Health, partners, Gavi, and others who have supported this important work.

Gavi Funding Mechanisms & Implementation

BMGF's ZD Operational Learning Workstream approaches ZD issues from the operational angle, focusing on funding, planning and coordination

Gavi's 5.0/5.1 period is an ambitious shift to address the stagnation in zero dose but faces **also introduces new implementation challenges.**

These include the needs to **subnationally tailor and coordinate** activities**, apply novel lenses** (e.g. IRMMA, BeSD, gender), and **understand if / where progress is being made** in real time.

Addressing these challenges will be critical to **change the trajectory on ZD between now and 2030** (+ beyond).

BMGF's Operational Learning Workstream is an effort to **accelerate understanding of these challenges** and identify **potential solutions**.

To do this, the workstream…

Focuses on **ZD-centric funding levers** (EAF, MICs Backsliding).

Examines factors impacting the **coordination and implementation of the overall ZD package –** not individual interventions.

Complements intervention-centric efforts (ZD SFA, ZDLA, etc) and the **Gavi ZD Learning Hubs**.

The work is structured around a series of learning areas that speak to core principles of Alliance ZD strategies

This workstream is structured around **15 Learning Areas** that explore how IRMMA and other ZD principles are **operationalized during implementation.**

Through observation, targeted support and key informant interviews, the grantees identify **enablers and barriers.**

This occurs on a **~6mo cycle, with each round featuring a discussion of solutions** that can be implemented in the near (5.0) or longer (6.0) term.

Topic	# Tracked Learning Areas	Example of Learning Area
Identify	2	An understanding of ZD 'drivers' is incorporated into the planning, execution and regular review of progress.
Reach	2	Processes are in place to tailor interventions to subnational needs and manage them over time
Monitor	1	Mechanisms are in place to track the implementation, timeliness, and quality of interventions.
Measure	1	Processes are in place to determine (i) which interventions are proving effective and (ii) integrate those findings into decision making forums.
Advocate	1	Political support for zero dose (including commitment of resources) is actively engaged throughout the process.
Gender	3	Gender considerations remain a relevant factor in how ZD interventions are planned, implemented, monitored and evaluated.
Coordination & Learning	4	Coordination mechanisms are established at national and subnational levels, with the right constituencies and tools to be effective.
PHC / GHI Integration	1	Immunization partners and interventions coordinate with relevant parts of PHC, vertical programs (e.g. polio) and other donors

Support is being provided across five countries, with implementation by CHAI and VillageReach; initial results available by end-September

Supporting Partner	Country	Funding Lever	Gavi Funds Disbursed
CLINTON HEALTH ACCESS INITIATIVE	Cambodia	EAF	July 2023 / May 2024[1]
	Cameroon	EAF	July 2024
	Indonesia	MICs Backsliding	July 2024 / MoH-TBC[2]
	Uganda	EAF	Est. Sept 2024
VILLAGEREACH	DRC *Tshopo + Haut Katanga*	EAF	October 2023 *(Many activities contracted / commenced in H1 2024)*

This investment was **kicked off in Q4 2023,** and is intended to run **through mid-2026,** to allow support through much of the expected funding period(s).

Results Schedule

Results are intended to come out ~ every 6 months, with periods of sharing and solutioning between each round.

Phase	**1**	**2**	**3**
Focus	Application Development	Activity Kickoff ("The First Six Months")	Implementation ("The 2nd Six Months")
Target Results Window	September 2024	Q1 2025	Q3 2025

(1) Funds were disbursed after MoH annual planning cycle, so actual spend-down did not commence until May 2024. (2) Partner funds have been disbursed as of July 2024, but MoH funds have yet to be released.

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