



# Description of Maternal and Child Health Markets

## Madagascar

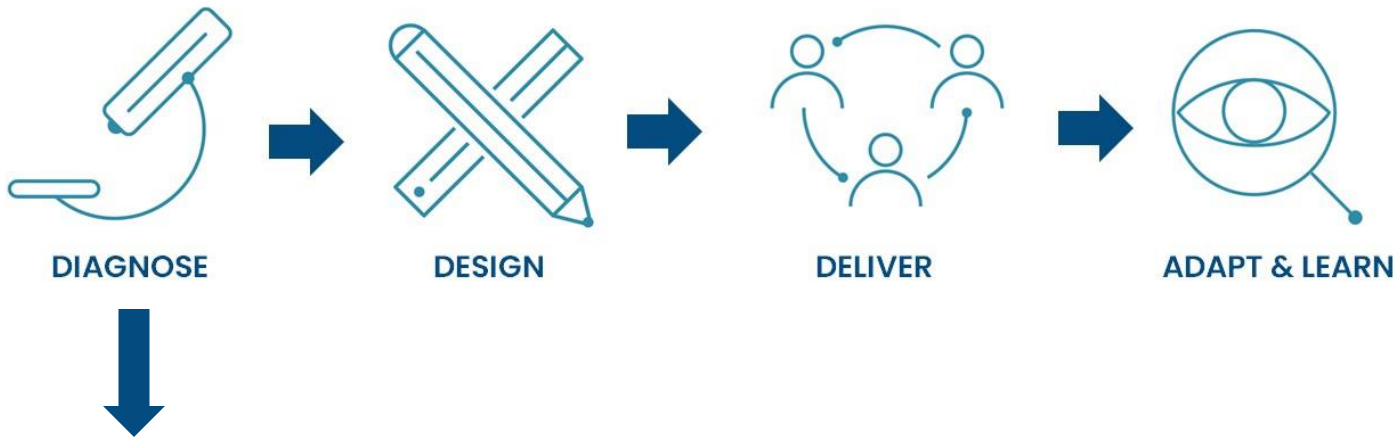
March 25, 2023



# Framework for Description of Maternal and Child Health Markets

# Market Description Approach

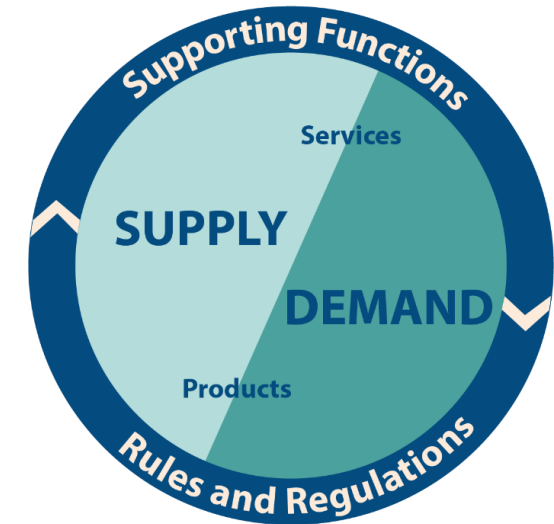
## A 4-step process for developing MCH markets



The market description is the first step of the DIAGNOSE phase

- ✓ Aids in identifying problems
- ✓ Selecting "good" markets
- ✓ Identify additional data needs for DIAGNOSIS

## Guiding framework for market descriptions



The aim is to describe the market structure

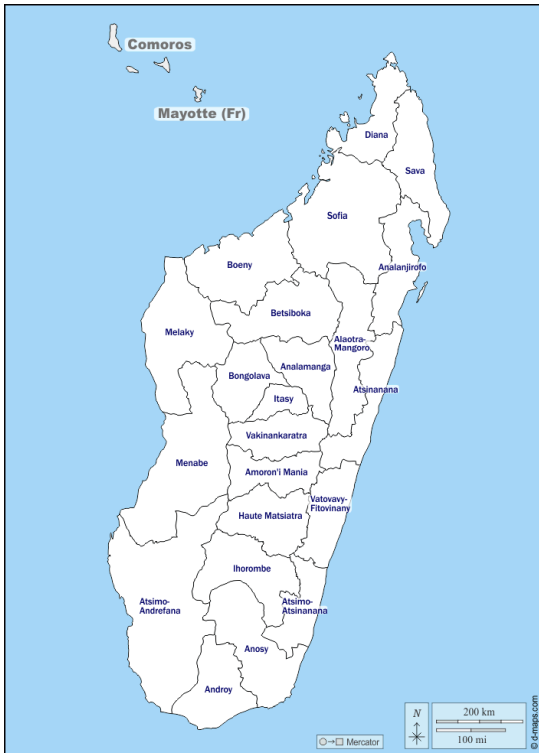


# MCH Trends in Madagascar

# Madagascar could reap the benefits of its demographic dividend but is but is held back by poverty

A young and growing population  
Increasing urbanization...

... but the vast majority of the population (80%)  
live below the poverty line



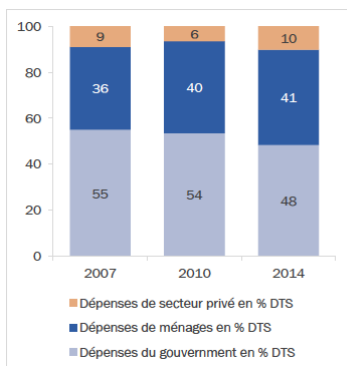
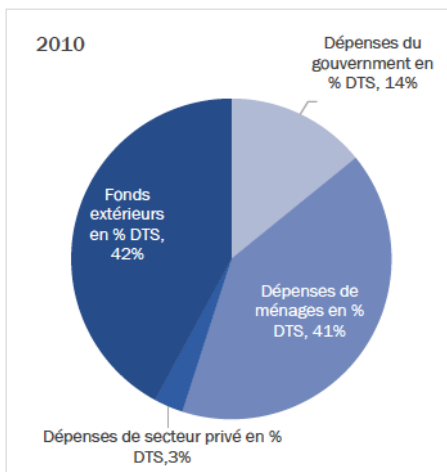
Madagascar		
Total population (2018) *		25.7 million
Growth rate (2018) *		3%/year
% urban (2018) *		19.3%
% youth population (<25) / elderly (>65) *		41% youth / 3% elderly
% literacy	F (2018) *	76%
	M (2018) *	78%
GDP growth (2021) **		4.3%
GDP per capita in current US\$ (2021)**		U\$500
Population at international poverty line (\$2.15/pers/day) and below (est. 2023) **		20.8 million (81%)

Source: \* RGPH 2018 \*\* Banque Mondiale

# Overview of the health sector in Madagascar

## Health Financing

Health spending is low and largely dependent on donors and households



3.69% of GDP

% health expenditure of GDP 2019

6.7%

Share of state funding for health

\$19.85 (current) per capita

## Health Infrastructure

A large number of small health facilities

**7,553 facilities in total**



22 public university hospitals  
16 Regional reference hospitals  
99 District reference hospitals



145 private hospitals  
136 Occupational medical service centers  
345 Private clinics  
280 Private health centers



2,710 Basic public health centers

1,909 Private provider offices



219 Private pharmacies

1,672 Medication depots

## Human Resources

Human resources for health are mostly concentrated in the public sector

**10,510 Health HR public sector (excluding administrative)**  
**3,656 Health HR private sector**



3,777 Public medical personnel



633 Medical generalists and specialists in the private sector (36% are also public sector providers)



6,732 Public paramedics

1,132 Private paramedics

34,000 Community health workers









219 Private pharmacists

1,672 Depot managers

# Maternal health indicators are far from the stated goals in Madagascar

## Medium-Term Goals (CARMMA 2015-2019 National Roadmap for Accelerating Reduction of Maternal Mortality in Africa)

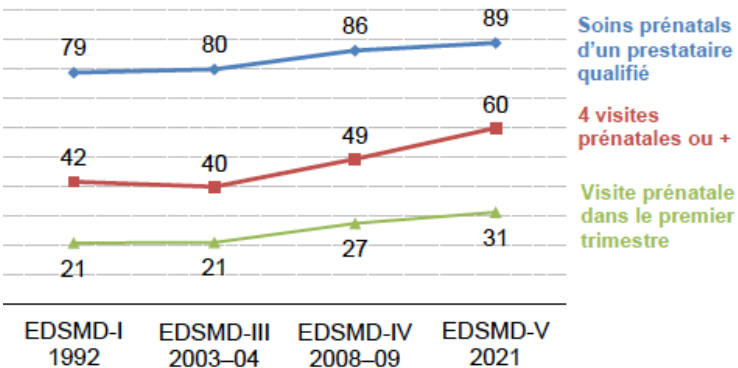
- Reduce the maternal mortality ratio to 300 per 100,000 live births
- Reduce the neonatal mortality rate to 17 per 1,000 live births

	Maternal mortality rate (per 100,000)	498 <sup>2</sup> , 408 <sup>3</sup> , 426 <sup>7</sup>
	Fertility rate (%) <sup>4</sup>	4.3
	Infant mortality rate (per 1,000 live births) <sup>4</sup>	26
	Prenatal care coverage (%) <sup>4</sup>	89
	Deliveries performed with assistance by a qualified health care provider (%) <sup>4</sup>	46
	Postnatal care coverage (%) <sup>4</sup>	(mothers) 58 (children) 47

# Modest progression in prenatal care coverage

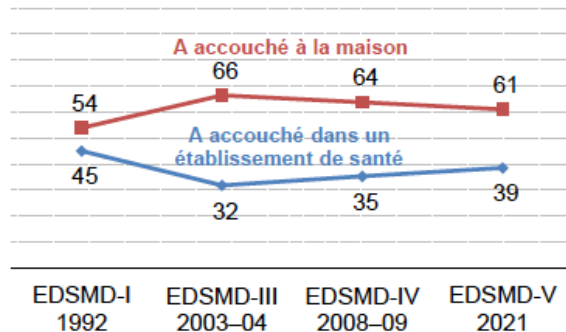
**Graphique 9.1 Tendence de la couverture en soins prénatals**

Pourcentage de femmes de 15–49 ans ayant eu une naissance vivante au cours des 5 années précédant l'enquête (pour la naissance la plus récente)



**Graphique 9.4 Lieu d'accouchement : tendances**

Pourcentage de naissances vivantes des 5 années avant l'enquête



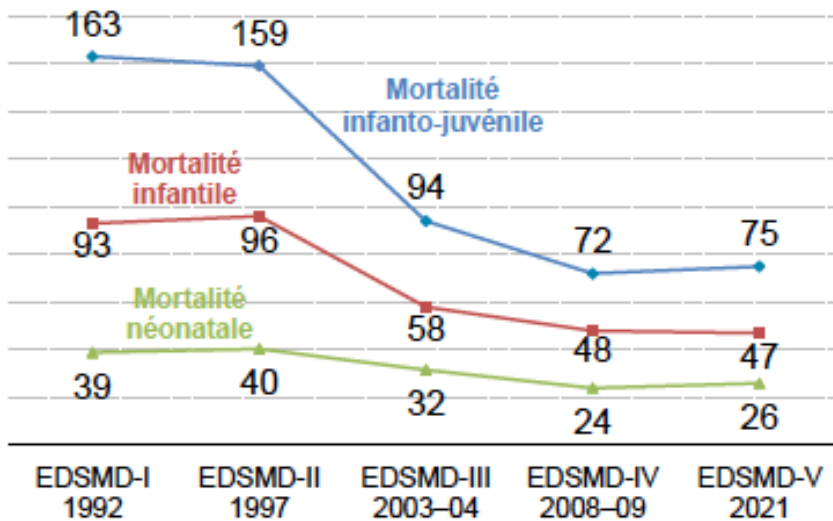
- Prenatal care is improving ... but slowly - Improvements in coverage of prenatal care by a qualified provider (from 79% in 1992 to 89% in 2021), in the percentage of women who had at least 4 prenatal visits (42% to 60% between 1992 and 2021, the largest increase), and in the % of women who had their first prenatal visit in the first trimester of pregnancy (from 21% in 1992 to 31% in 2021). However, these improvements are relatively modest and are seen over a long period (30 years)
- There has been an improvement in the use of medication during prenatal care, with the proportion of women who received iron increasing from 32% in 2003-04 to 74% in 2021
- The share of women who use the private sector for prenatal care is increasing - The share of women who had a live birth in the 5 years preceding the survey and who received, for the most recent birth, at least one prenatal care, and who chose to go to the private sector, has been steadily increasing since 1992, even if it remains at a modest level (from 1.7 % in 1992 to 6.2 %)
- The share of births that took place in a health facility decreased between 1992 and 2008 and has been stagnating since (45% in 1992, 35% in 2008-2009, 39% in 2021). In the same period, the share of births that took place at home increased from 54% in 1992 to 64% in 2008-09, and stagnates at 61% in 2021. The share of births attended by skilled personnel decreased from 57% in 1992 to 46% in 2021
- Nutritional problems that affect women's health - The percentage of women aged 15-49 who are underweight has stagnated over the past 25 years (21% in 1997 vs. 19% in 2021), and over the same period the proportion of women who are overweight or obese has increased from 4% to 14



# Stagnation on indicators of infant health

**Graphique 8.1 Tendances de la mortalité des enfants de moins de 5 ans**

*Décès pour 1 000 naissances vivantes par période de 5 ans avant l'enquête*



- After a very sharp decrease between 1992 and 2008 (from 163 ‰ to 72 ‰), under-5 mortality has stagnated for the past 12 years (72 ‰ in 2008 and vs 75 ‰ in 2021)
- Acute respiratory infections have declined sharply in 20 years (from 15% in 1992 to 2% in 2021) but have changed little between 2009 and 2021 (from 2.9% to 2.4%)
- Basic immunization coverage has declined in 20 years after having increased (53% in 2003, 62% in 2008-09, 49% in 2021), and the percentage of children who have not received any vaccine has stagnated
- Stagnation of some important nutrition indicators - % of children 0-5 months exclusively breastfed stagnates at around 50%, prevalence of wasting increases over 30 years (6% to 15% between 1992 and 2021)
- The use of child health care is mainly in the public sector, but the share of children with diarrhea and fever seeking care in the private sector is significant - 7% among children with diarrhea and 16% among children with diarrhea for whom advice or treatment was sought - 8% among children with fever and 18% among children with fever for whom advice or treatment was sought

# Maternal and child health indicators by place of residence

■ National ■ Urban ■ Rural



Maternal mortality rate (per 100,000)<sup>3</sup>

408

312

426



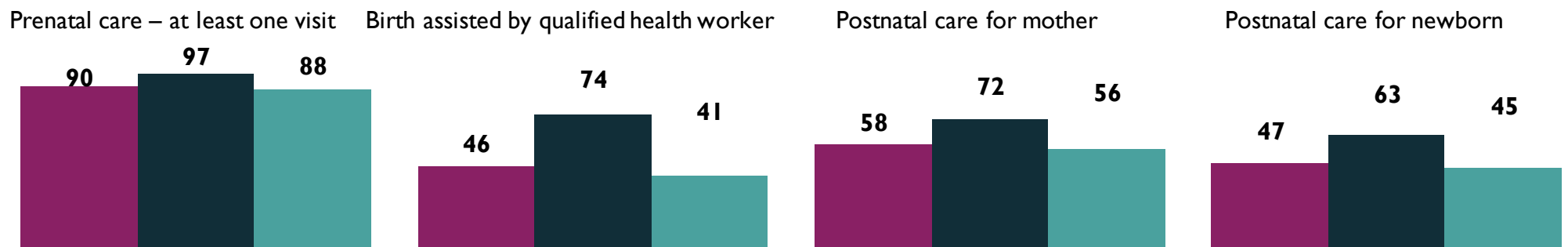
Infant mortality rate (per 1,000)<sup>1</sup>

26

30

25

EDS, 2021



Maternal mortality rate (per 100,000)<sup>2</sup>

426

NA

NA



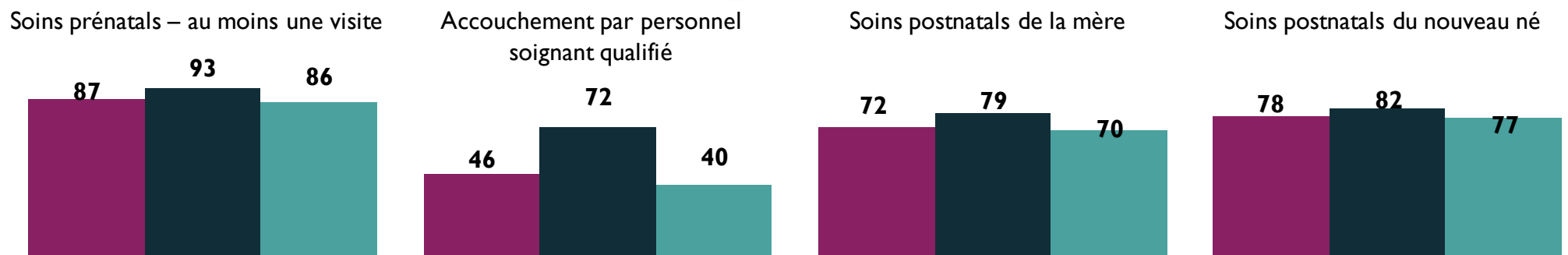
Infant mortality rate (pour 1,000)<sup>2</sup>

22

22

22

Multiple Indicator Cluster Survey (MICS), 2018

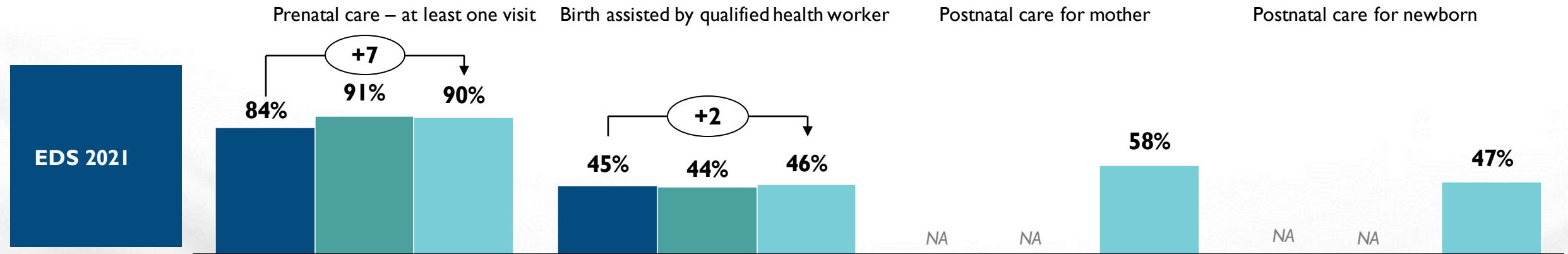


- The maternal mortality ratio changed little between 2018 and 2021
- Prenatal care (at least one visit) is fairly universally practiced in Madagascar, regardless of residence. This is not the case for postnatal care, which decreased between 2018 and 2021, for both the mother and the newborn. There are significant differences between urban and rural areas for most indicators.

# Maternal and child health indicators - 20-year trends

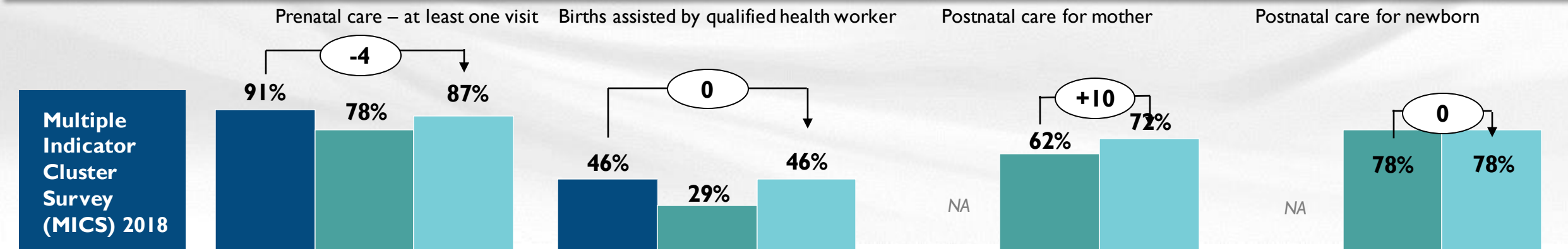
Change in % of women accessing prenatal care, delivery services and antenatal care (2018-2021)

NA Data not available. 2004 2009 2021



Change in % of women accessing prenatal care, delivery services and care (2008-2018)<sup>2</sup>

NA Data not available. 2000 2012 2018



- Prenatal care (at least one visit) increased slightly between 2004 and 2021 - it was already at a high level
- However, staff deliveries and postnatal newborn care have been stagnant for 20 years.

# A comprehensive set of documents, goals, and frameworks that nonetheless face significant challenges in the health care system

## Key documents

## Implementation strategy

**Health Sector  
Development Plan  
2020-2024**

### **Improve health indicators, including MCH**

- Sectoral translation of the strategic orientations defined in the Plan Emergence Madagascar designed by the government
- Focus on maternal and child health - 2 out of 5 goals are related to it - (i) Reduce the global maternal mortality ratio to below 70/100,000;(ii) Reduce neonatal mortality to below 12/1,000 live births and under 5 mortality to below 25 per 1,000 live births

**National Strategic  
Plan for Community  
Health Strengthening  
2019 - 2030**

### **Institutionalization, coordination, harmonization and optimization of the implementation of community health in Madagascar**

- 3 levels of service delivery identified for CHWs: "basic minimum package", "essential package" and "specific package"
- Supply of products and supervision by the public sector, harmonization of the motivation of CHWs
- Official certification of CHW skills issued by the Ministry of Public Health

# Maternal child health service delivery

# A wide variety of actors that play a role in MCH markets

**Procurement management/ appro**  
SALAMA

**Financing**  
Ministry of Finance

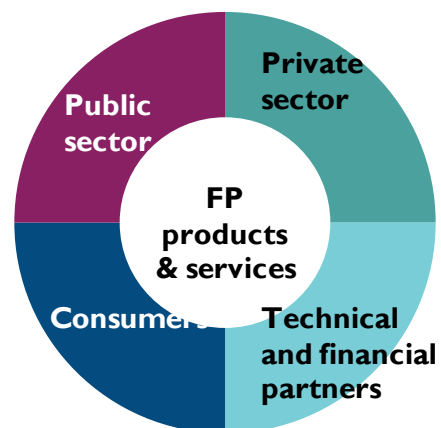
**Regulatory authorities**  
Medicines Agency of Madagascar (AGMED)  
Directorate of Pharmacy, Laboratories and Traditional Medicine (DPLMT)  
National Hospital Agency (ANH)  
+ 19 public sector entities

**Data management**  
DHIS2  
CHANNEL (management of health inputs)

**Service delivery points**  
Public sector: 4 levels  
34,000 Community health workers

**Target population**  
Women of reproductive age  
Youth and adolescents

## Market environment for MCH products and services



**Importers, wholesalers and distributors**

Private sector: 34 wholesale distributors (of which 7 control 80% of the market)

**Service delivery points**

Private Non-Profit Sector  
Private for-profit sector (a total of 12 types of health facilities identified in a 2014 order)  
Pharmacies and drug stores

**Professional Associations**

Association of Country Doctors of Madagascar (AMC-MAD)  
National Association of Midwives (ANSF)  
National Association of Malagasy Traditional Practitioners (ANTM)  
Comité des Entreprises d'Assurance de Madagascar (CEAM)  
Associations (e.g., Ordre des Médecins)  
Union of Paramedics

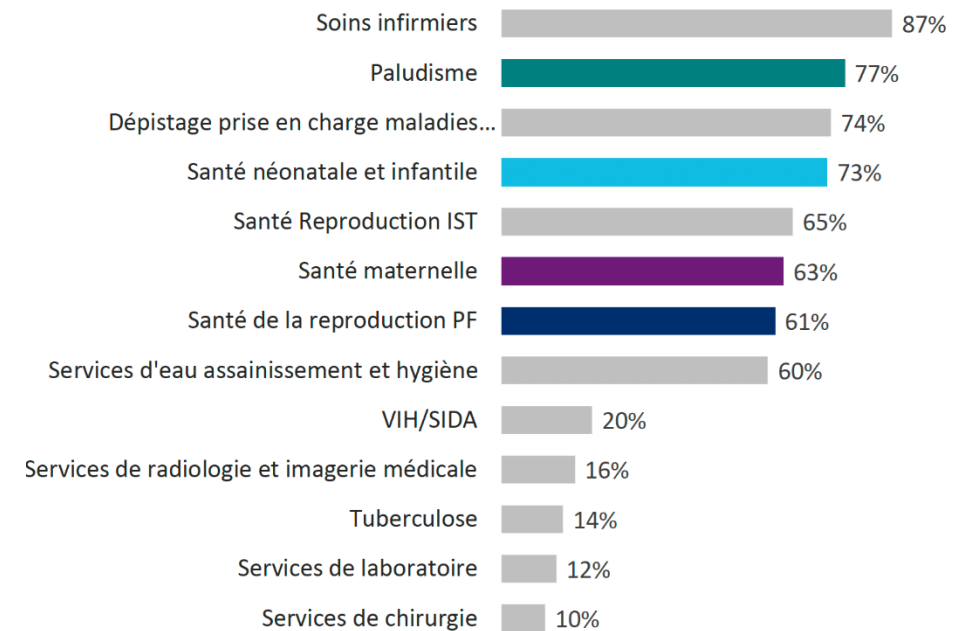
**Financing**

USAID  
GAVI  
Global Fund  
OMS  
UNICEF  
UNFPA

# Private sector providers engaged in maternal and child health: potential to increase their involvement in these areas

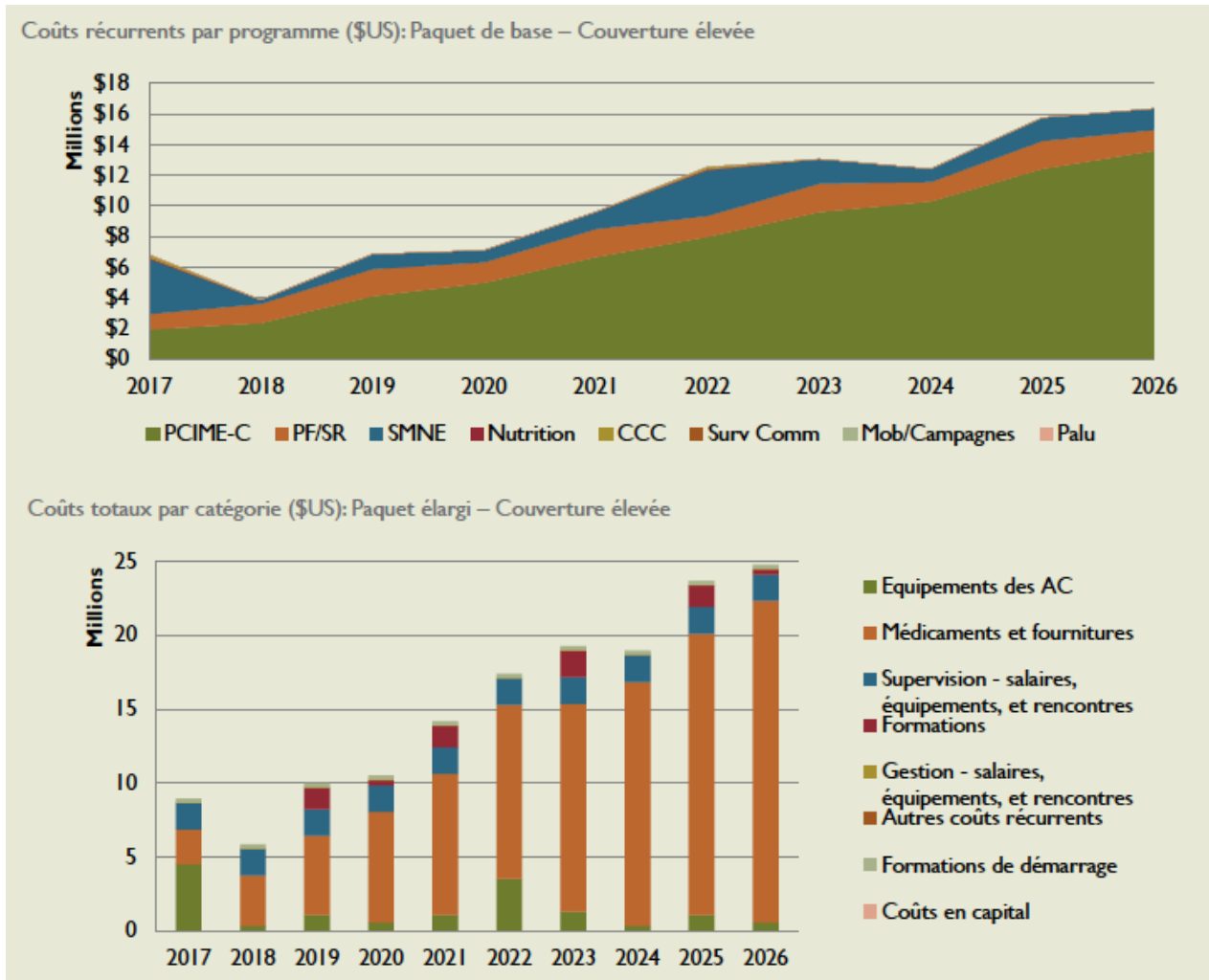
- The majority of private sector providers are small practices - 68% are medical offices, with an average of only 2 staff
- Neonatal and child health and maternal health services represent the majority of services offered (73% and 63% respectively). However, few offer immunization services (25%) and only 15% of practices
- A relatively high proportion of private providers perform growth monitoring (60%), indicating some potential for natural expansion into nutrition
- Despite the high proportion of providers citing their patients' low purchasing power as a challenge (71%), too few (32%) accept clients who have coverage -25% for clinics or practices (80% of the sample)

## Services offerts par les SPS



Source: SHOPS +, Mapping the Private Health Sector in Madagascar

# Community health is omnipresent and growing in importance, but at high cost and totally dependent on external funding

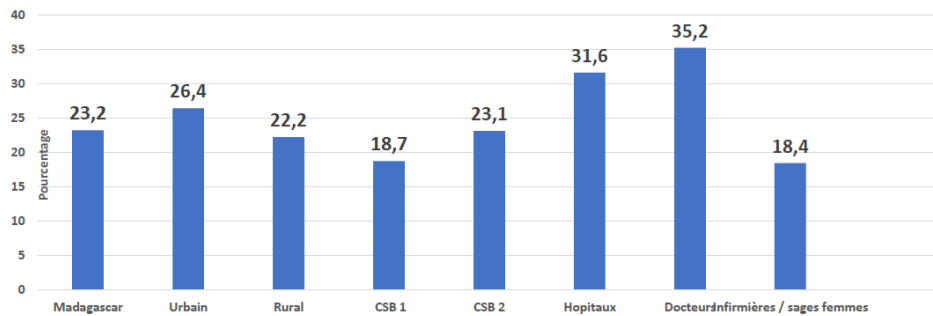


- There are an estimated 34,000 community workers in Madagascar, far more than other types of health personnel
- In Integrated Management of Childhood Illnesses at the community level (IMCIc), only 34% of community sites were operational until 2017. After the capacity building of CHWs in IMCIc in 2017-2018 (Global Fund), this percentage increased to 60%.
- Community and clinical IMCI materials were updated in 2018, but due to lack of funding, insufficient training and follow-up
- Community agents are in the process of being integrated into the Ministry of Health, with support from the USAID IMPACT project
- A system whose costs continue to rise (especially for IMCIc, and especially for drugs), in a context of stagnating or even decreasing donor funding



# Quality indicators of health service delivery indicate low and declining quality of care

## C. Compétences du personnel médical C1. Exactitude du diagnostic



### Proportion de conditions médicales correctement diagnostiquées sur cinq par les prestataires

- Prestataires de soins de santé n'ayant pu diagnostiquer correctement qu'environ un quart (23,2%) des cinq conditions avec plus pour les médecins
- Exactitude du diagnostic augmentant avec le niveau de l'établissement

Source: World Bank, 2022, Results on Health Service Delivery Indicators in Madagascar

- Problems with adherence to guidelines that raise questions about dissemination and formative supervision
  - Adherence of health providers to clinical guidelines for the management of the five conditions decreases (from 29 to 25% between 2016 and 2021)
  - Only 22% of health providers adhere to clinical guidelines for the management of maternal and neonatal complications
- Skill issues that raise the question of training
  - Diagnostic accuracy of medical staff decreases (from 29% to 23% between 2016 and 2021)
  - Only 18% of nurses and midwives were able to diagnose 5 conditions in clinical simulation
  - Low diagnostic skills of community workers (38% could not correctly diagnose any cases, 36% diagnosed one case, 19% 2 cases, 7% 3 and 1% all 4 cases), including very low diagnostic accuracy for stunted diarrhea (5%)
- Problems of motivation
  - Absence from the facility increases (from 26% to 41% between 2016 and 2021)
- Problems related to equipment
  - Only 14% of facilities can provide basic emergency obstetric care services
  - Equipment availability drops sharply (from 56% to 29% between 2016 and 2021)

# Supply – Priority products in Madagascar

# Priority maternal health products

Priority product	Use indication	National treatment directive	Channels and grants
Oxytocin 10 IU/mL – 1 mL ampoule	<ul style="list-style-type: none"> <li>• Induction and acceleration of labor</li> </ul>	Immediate management of PPH due to uterine atony	Public and private sector
Misoprostol - 200 mcg pills	<ul style="list-style-type: none"> <li>• Prevention of postpartum hemorrhage</li> </ul>	Prevention of PPH, used in the absence of oxytocin: Three 200 mcg tablets taken in a single oral dose	Public and private sector
Sulfate de magnésium - 0.5 g/mL – 10mL ampoule	Treatment of eclampsia and preeclampsia	Anticonvulsant treatment	Public and private sector

# Priority child health products

## Newborn care

Priority products	Use indications	National treatment directive	Channels and grants
Gentamicin 10 mg/mL – 2 mL ampoule	Treatment of neonatal sepsis	Treatment indicated for severe clinical infections in newborns when families do not accept or cannot access referral; gentamicin injections 5.0-7.5 mg/kg once daily (for 2 or 7 days) and oral amoxicillin twice daily 50 mg/kg per dose for 7 days	Public and private sector
Chlorhexidine gel 7.1% – single-dose tube	Prevention of umbilical infections	Preventive measure - single dose applied as soon as possible and within 24 hours of birth	Public and private sector
Afoitra (PSI brand) –3g or 20 g tube (UNICEF)	Prevention of umbilical infections	Preventive measure - single dose applied as soon as possible and within 24 hours of birth	Public and private sector

# Priority child health products

## Children under 5 years of age

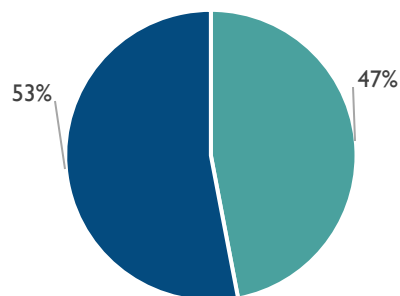
Priority product	Usage indications	National treatment directive	Channels and grants
Amoxicillin 250 mg - dispersible tablets	Pneumonia treatment for children between 2 months and 5 years	Treatment of pneumonia and local bacterial infections; preferred formulation for young children for safety reasons over amoxicillin oral solution	Public sector
Oral rehydration salts (ORS) + zinc 20 mg	Treatment of simple diarrhea	Treatment of simple diarrhea, using the recommended amount of ORS every 4 hours and zinc for 10 days	Public and private sector

## Water treatment to prevent diarrhea

Priority product	Usage indications	National treatment directive	Channels and grants
Effervescent chlorine tablet	Water treatment	Treatment for non-potable water	Public and private sector

# Market Data - Maternal Health - Oxytocin (1ml ampoule, 10 IU/ml)

Share of market (volume)  
Oxytocin



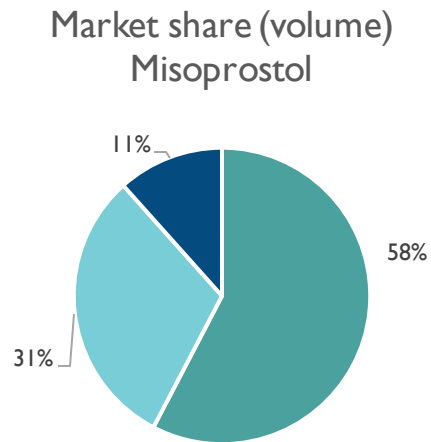
■ Privé but lucr. ■ Public

	Measure	Public sector	Private for-profit sector	Private non-profit sector	
		Distributed by SALAMA	Sold by pharmaceutical wholesalers	Social marketing	Other NGOs
<b>Market volume</b>	Qty sold/distributed	1.091.905	1.252.830	0	247
<b>Unit purchase price</b>	USD	ND	0,11	NA	0,12
<b>Market value</b>	USD	ND	137.811	NA	30

Prices by type of establishment	Gross price (Ar)		Detailed price (Ar)	
	10 UI	5 UI	10 UI	5 UI
Public	0 – 600	392 – 444	0 – 1.000	530 – 600
Private non-profit sector	0 – 1.000	0 – 1.100	0 – 2.500	0 – 1.000
Private for-profit sector	0 – 1.700	250 – 1.000	0 – 1.500	500 – 3.000
Black market	360 – 3.000	-	500 – 4.000	-

The private for-profit sector comprises more than half of the market, despite the low unit price

# Market Data - Maternal Health - Misoprostol (Blister of 4 tablets of 200 mg)



■ Privé but lucr. ■ Privé but non lucr. ■ Public

	Measure	Public sector	Private for-profit sector	Private non-profit sector	
		Distributed by SALAMA	Sold by pharmaceutical warehouses	Social marketing	Other NGOs
<b>Market volume</b>	Qty sold / distributed	96.052	477.115	0	254.322
<b>Unit purchase price</b>	USD	NA	0,89	NA	0,33
<b>Market value</b>	USD	NA	424.632	NA	83.926

Price by type of establishment ( <i>blister of 4 200mg tablets</i> )	Gross price (Ar)	Detailed price (Ar)
Public	0 – 7.692	0 – 10.000
Private non-profit	0 – 8.428	0 – 16.800
Private for-profit	0 – 11.250	0 – 15.000
Black market	1.000 – 1.500	2.000 – 3.000

The Private for-profit sector comprises nearly 60% of the market, for a high value compared to other MCH products

# Market Data - Maternal Health - Magnesium Sulfate (50% injectable vial)

	Measure	Public sector	Private for-profit sector	Private non-profit sector	
		Distributed by SALAMA	Sold by pharmaceutical warehouses	Social marketing	Other NGOs
<b>Market volume</b>	Qty sold / distributed	115 900	0	0	0
<b>Unit purchase price</b>	USD	ND	NA	NA	NA
<b>Market value</b>	USD	100	NA	NA	NA

Price by type of establishment (50% injectable vial)	Gross price (Ar)	Detailed price (Ar)
Public	0 – 1.000	0 – 2.000
Private non-profit	0 – 4.444	500 – 6.000
Private for-profit	0 – 1.500	0 – 3.000
Black market	1.800	2.500

- A very specific product (can only be administered in institutions that can do intravenous, is only used in severe pre-eclampsia or eclampsia), which is therefore of limited interest to the private sector and is entirely dominated by the public sector
- A product with supply problems



# Market Data - Infant Health - Clorexidine (7.1%, 3g tube)

	Measure	Public sector	Private for-profit sector	Private non-profit sector	
		Distributed by SALAMA	Sold by pharmaceutical warehouses	Social marketing	Other NGOs
Market volume	Qty sold / distributed	0	0	16.359	0
Unit purchase price	USD	NA	NA	0,33	NA
Market value	USD	NA	NA	5.398	NA

Price by type of establishment (3g tube)	Gross price (Ar)	Detailed price (Ar)
Public	0 – 500	0 – 1.800
Private non-profit	0 – 800	0 – 2.000
Private for-profit	0 – 5.300	0 – 17.000
Black market	0 – 500	0 – 1.800

- A very small market dominated by social marketing to community agents (current subsidy of about 50%)
- The market covers only 1.8% of the estimated 892,000 annual births, so there is significant growth potential

# Market Data - Children's Health - Sûr'Eau - Packs of 10 effervescent chlorine tablets

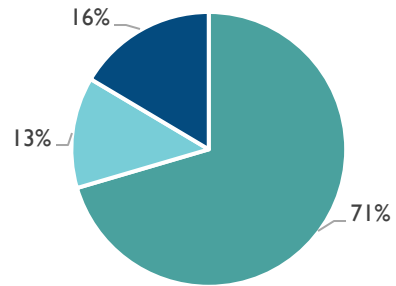
	Measure	Public sector	Private for-profit sector	Private non-profit sector	
		Distributed by SALAMA	Sold by pharmaceutical warehouses	Social marketing	Other NGOs
Market volume	Qty sold / distributed	14.900	2.400	1.775.280	0
Unit purchase price	USD	NA	0,60	0,33	NA
Market value	USD	NA	1.440	585.842	NA

Price by type of establishment ( <i>packet of 10 tablets</i> )	Gross price (Ar)	Detailed price (Ar)
Public	0 – 500	0 – 1.800
Private non-profit	0 – 250	0 – 500
Private for-profit	0 – 200	0 – 300
Black market	NA	NA

- A market dominated by social marketing to community agents, thus a significant growth potential in the private for-profit sector

# Market Data - Infant Health - ORS and Zinc - 1 bag of ORS, 10 zinc tablets

Market share (volume)  
SRO



■ Public ■ Privé but lucr. ■ Privé but non lucr.

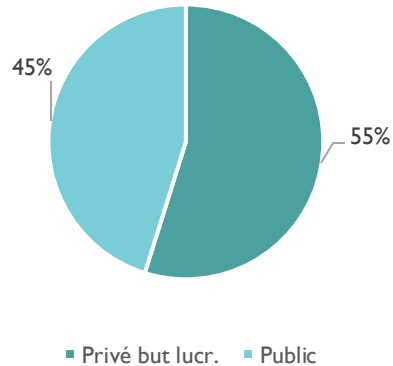
- A market largely dominated by the public sector and social marketing to community agents, with significant growth potential in the private for-profit sector

Product presentation	Measure	Public sector	Private for-profit sector	Private non-profit sector	
		Distributed by SALAMA <sup>a</sup>	Sold by pharmaceutical warehouses	Distribution to community health workers	Distributed by other NGOs <sup>b</sup>
Market size					
ORS Packets	Qté vendue / distribuée	413.200	76.740	96.504	360
Zinc tablets, 20 mg		1.377.500	0	96.504	0
Unit purchase price (USD)					
ORS Packets	USD	ND	0,28	0,08	0,16
Zinc tablets, 20 mg	USD	ND	NA	1,04	NA
Market value <sup>d</sup> (USD)					
ORS Packets	USD	ND	21.487	7.720	58
Zinc tablets, 20 mg	USD	ND	NA	135.106	NA

Price by type of establishment (1 sachet SRO, 10 comprimés zinc)	Gross price		Detailed price	
	SRO	Zinc	SRO	Zinc
Public				
Private non-profit	0 – 526	0–1.000	0 – 1.000	0–2.000
Private for-profit	0 – 526	0–2.000	0 – 1.000	0–3.000
Black market	0 – 4.870	0–10.500	0 – 2.000	0–16.200

# Market Data - Infant Health - Amoxicillin - Dispersible Tablets (DC) 250 mg / Powder For Syrup (PFS) 250 mg

Market share (volume)  
Amox. PPS



Présentation de l'amoxicilline	Mesure	Public sector	Private for-profit sector	Private non-profit sector	
		Distributed by SALAMA <sup>a</sup>	Sold by pharmaceutical warehouses	Social marketing	Distributed by other NGOs <sup>b</sup>
Market size					
Packet of amoxycillin in DC	Quantité vendue/ distribuée	0	0	200.081	0
Amoxycillin in PFS		375 574	455.832	0	1420
Unit purchase price <sup>c</sup>					
Packet of amoxycillin in DC	USD	NA	NA	0,37	NA
Amoxycillin in PFS	USD	ND	0.79	NA	0,72
Market value <sup>d</sup>					
Packet of amoxycillin in DC	USD	NA	NA	74.030	NA
Amoxycillin in PFS	USD	ND	360.107	NA	1022

- DCs are distributed exclusively by community agents
- The private for-profit sector holds more than half of the PFS

Price by type of establishment (250mg in DC / 1 60ml bottle in PFS)	Gross price		Detailed price	
	Public	0 – 68	0–2.870	0 – 675
Private non-profit	0 – 17.500	0–5.940	500 – 12.500	0–9.000
Private for-profit	200 – 10.000	0–20.000	0 – 17.000	0–20.000
Black market	250 - 300	1.500 – 4.500	500 - 600	2.000 – 5.000

# Market Data – Gentamicine

- A market divided between public and private for-profit sectors, depending on the dosage, but with the largest volumes in the public sector

Presentation of gentamicine	Public sector	Private for-profit sector	Private non-profit sector	
	Distributed by SALAMA <sup>a</sup>	Sold by pharmaceutical warehouses	Social marketing	Distributed by other NGOs <sup>b</sup>
Market size (Quantity sold/distributed) et unit price (USD)				
10 mg/mL, ampoule 2 mL	0	1.696 // \$0,08	0	0
20 mg/mL, ampoule 2 mL	76.100	0	0	0
40 mg/mL, ampoule 2 mL	0	81.600 // \$0,07	0	800 // \$0,06
80 mg/mL, ampoule 2 mL	2.325.000	79.990 // \$0,07	0	320 // \$0,07
Market value <sup>d</sup> (USD)				
10 mg/mL, ampoule 2 mL	NA	137	NA	NA
20 mg/mL, ampoule 2 mL	ND	NA	NA	NA
40 mg/mL, ampoule 2 mL	NA	5.712	NA	NA
80 mg/mL, ampoule 2 mL	ND	5.599	NA	NA

Establishment	Gross price			Detailed price		
	80 mg/mL	40 mg/mL	10 mg/mL	80 mg/mL	40 mg/mL	10 mg/mL
Public	0–1300	0 – 1.000	0	0–2000	0 – 2.000	1.000
Private non-profit	0–1372	600 – 800	17 - 740	0–2000	900 – 2.000	500 – 1.500
Private for-profit	0–2000	200	0 - 700	200–2800	500	0 - 3.000
Black market	350–1500	600	200 – 1.500	900–2500	3.000	400 – 2.000

# Product summary



- Markets with low overall volumes and value, and therefore growth potential
- Private sector dominates misoprostol, oxytocin for maternal health and amoxicillin for child health
- Some products, such as Sûr Eau water treatment, were massively distributed by the private for-profit sector, particularly boutiques, which suggests that the potential is there and could be reactivated
- For some key products, such as ORS and zinc, massive efforts to raise awareness and train medical staff and pharmacists, as well as to create demand among families, would undoubtedly increase volumes, but the low margins generated by the products may be met with reluctance by pharmacists



# **Demand for MCH services in Madagascar**

# The overwhelming majority of women have received at least one prenatal visit in Madagascar, with little difference between urban and rural areas

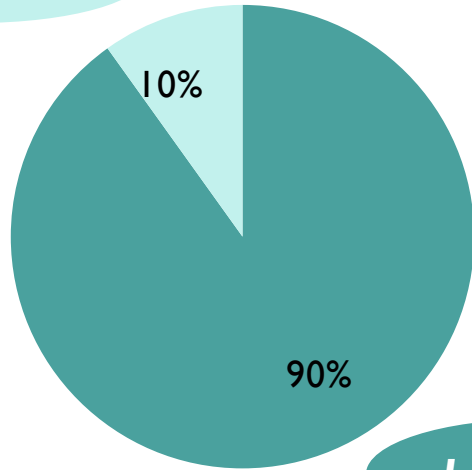
Proportion of all women of childbearing age who received prenatal care (%)

Estimated number of women

## Received prenatal care (Total)

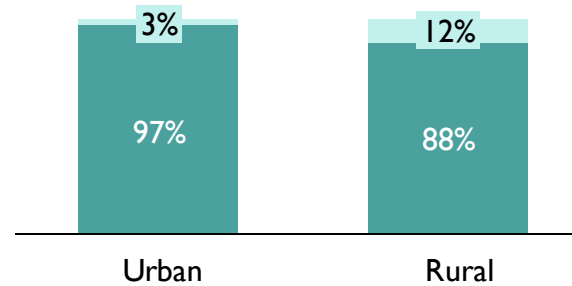
Received prenatal care  
Did not receive prenatal care

186,887

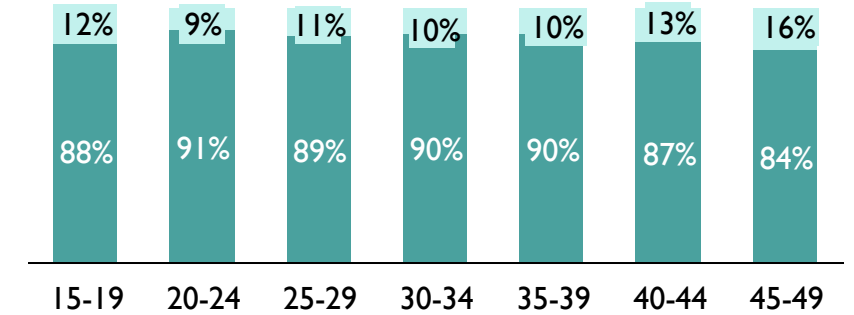


1,681,982

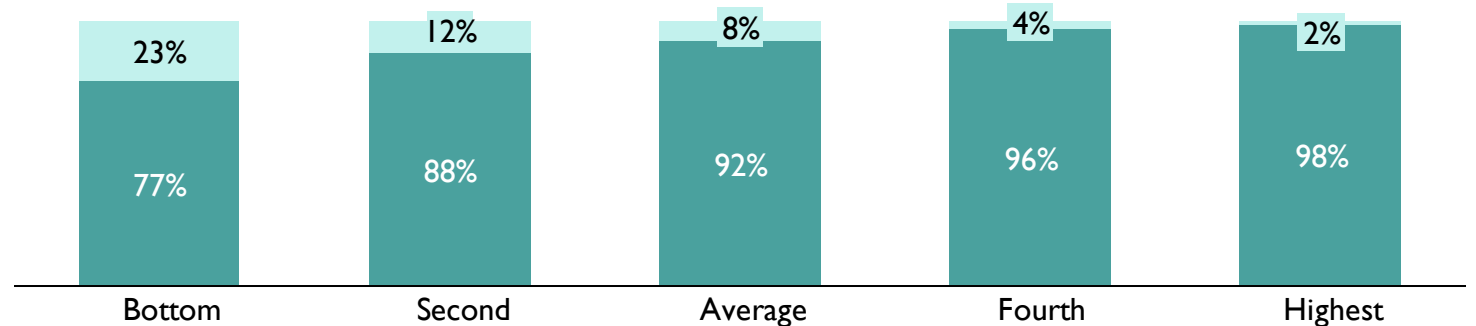
## By geographic zone



## By age group (in years)



## By economic quintile




There are still nearly 200,000 women who have not received any prenatal visits, especially in the lowest economic welfare quintiles and in rural areas





# More than half of women give birth without a skilled attendant, especially in rural areas and among the poorest

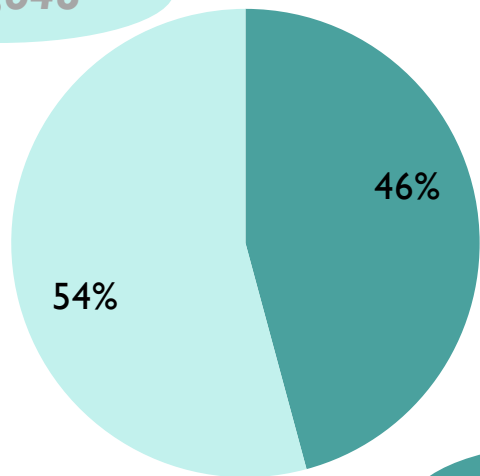
Proportion of all women of childbearing age who delivered with the assistance of a skilled attendant (%)

 Estimated number of women

## Delivery with the help of a qualified caregiver

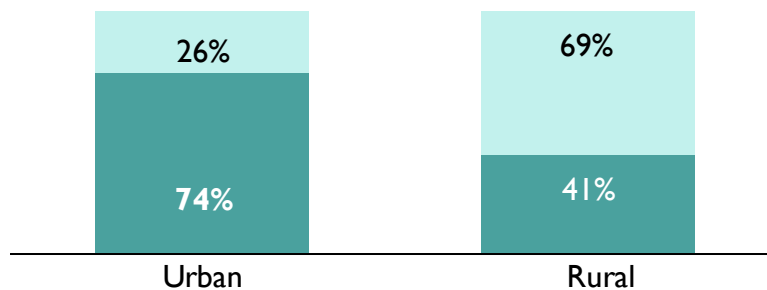
 With a qualified health worker  Without

400,648

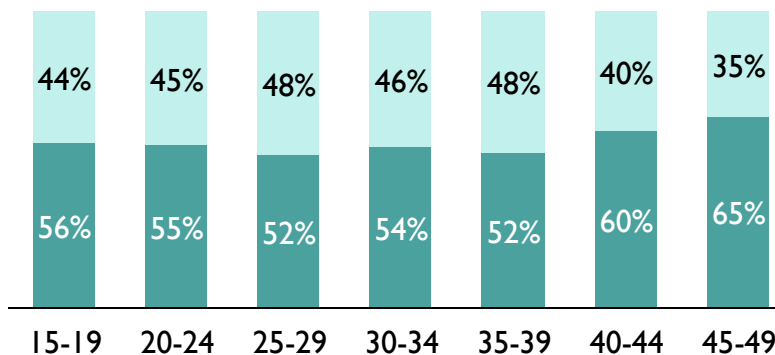


341,293

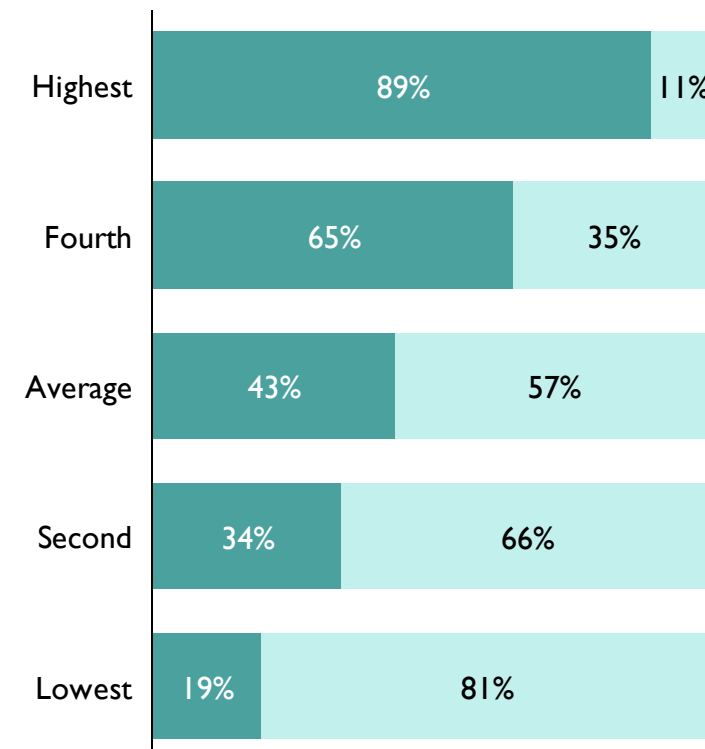
## By geographic zone



## By age group



## By economic quintile



Age has limited impact until age 40, at which point the use of a qualified caregiver increases

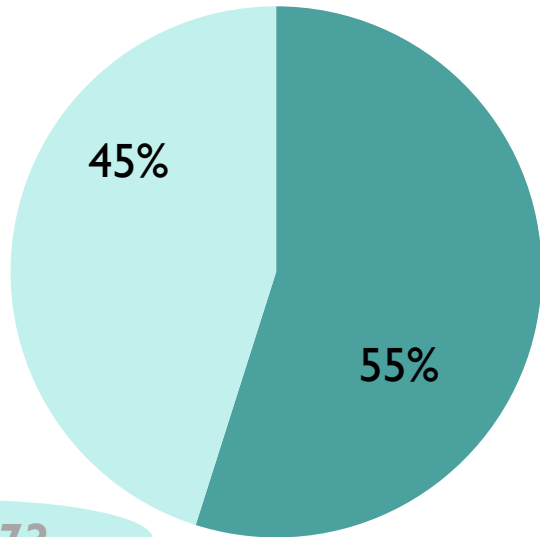
# The majority of women received postnatal care, especially in urban areas and in the highest economic well-being quintiles

## Proportion of women who received postnatal care within 2 days of birth (%)

Estimated number of women

### Women who received postnatal care

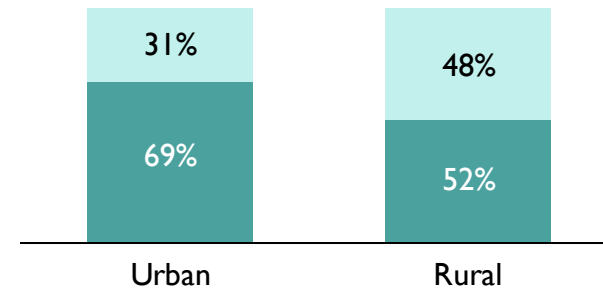
Received postnatal care  
Did not receive postnatal care



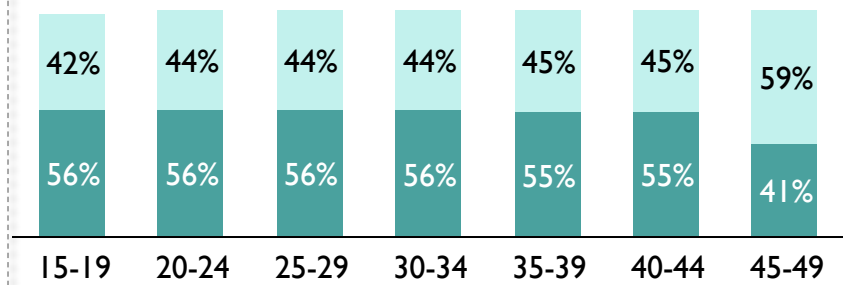
408.068

333,873

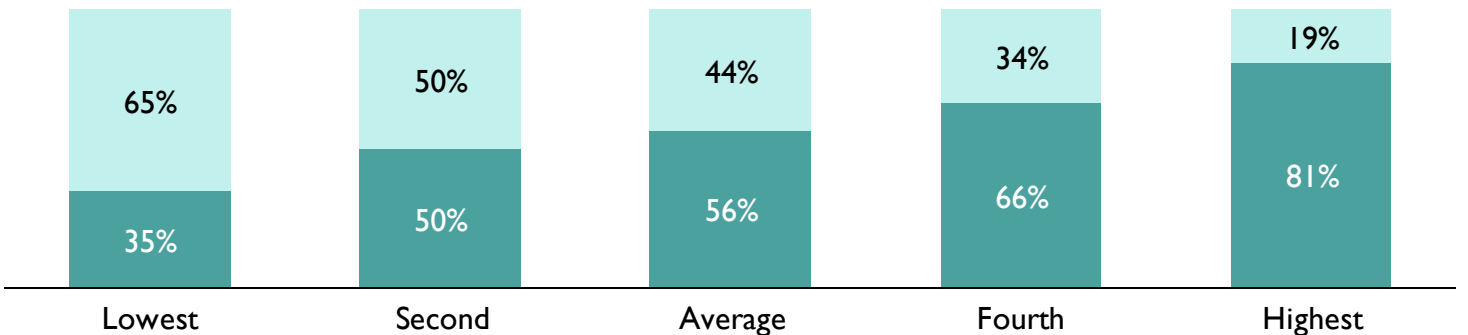
### By geographic zone



### By age group (years)



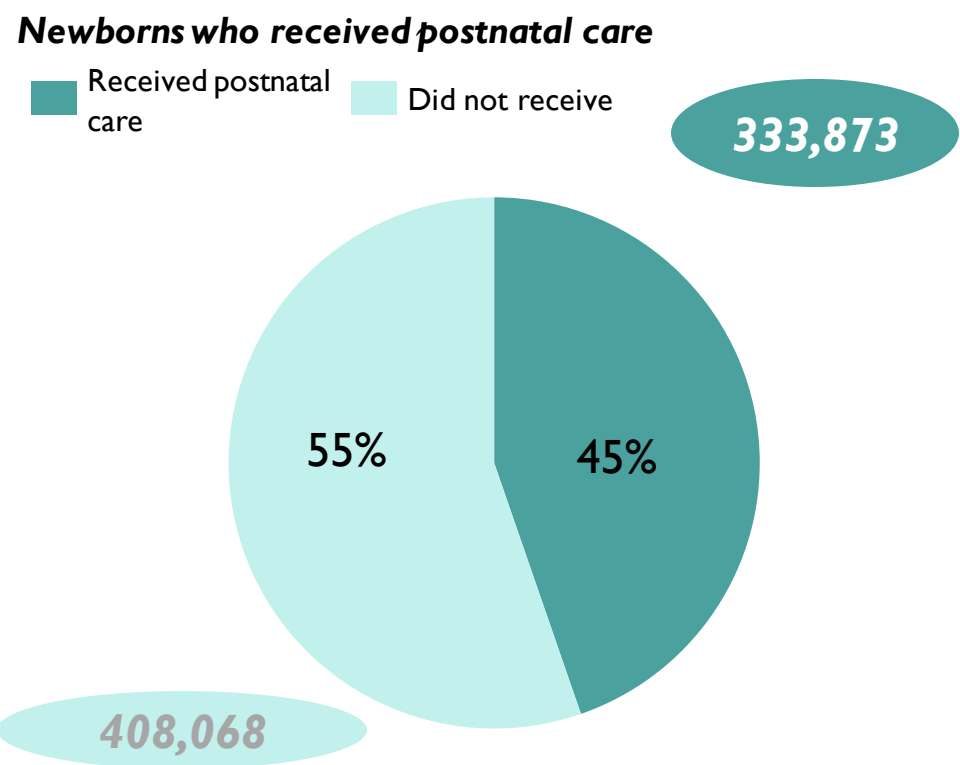
### By economic quintile



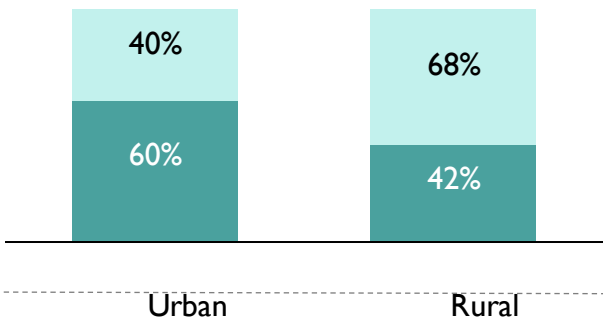
Age has little impact until age 45, at which women's postpartum care decreases

# A minority of newborns received postnatal care, with large differences between place of residence and economic well-being quintiles

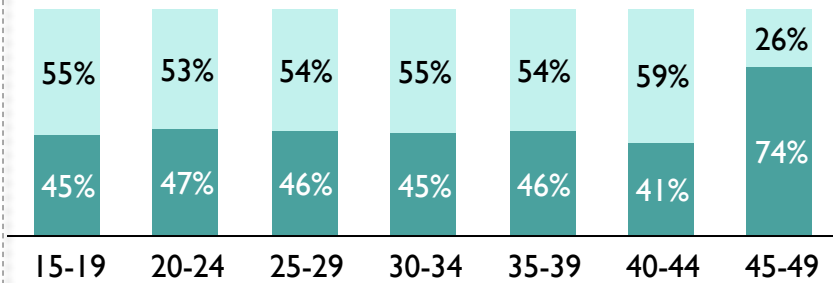
Proportion of newborns receiving care within 2 days of birth (%)



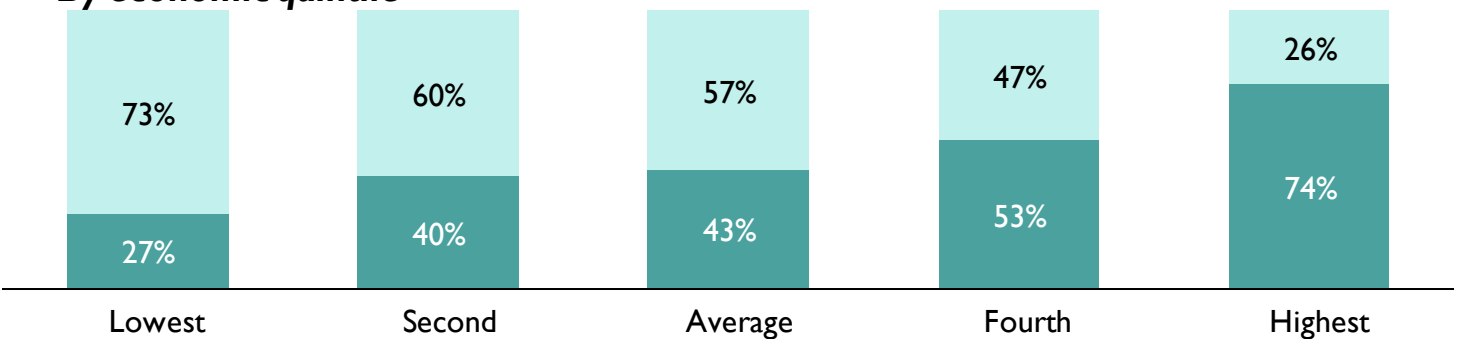
By geographic zone



By age group (years)

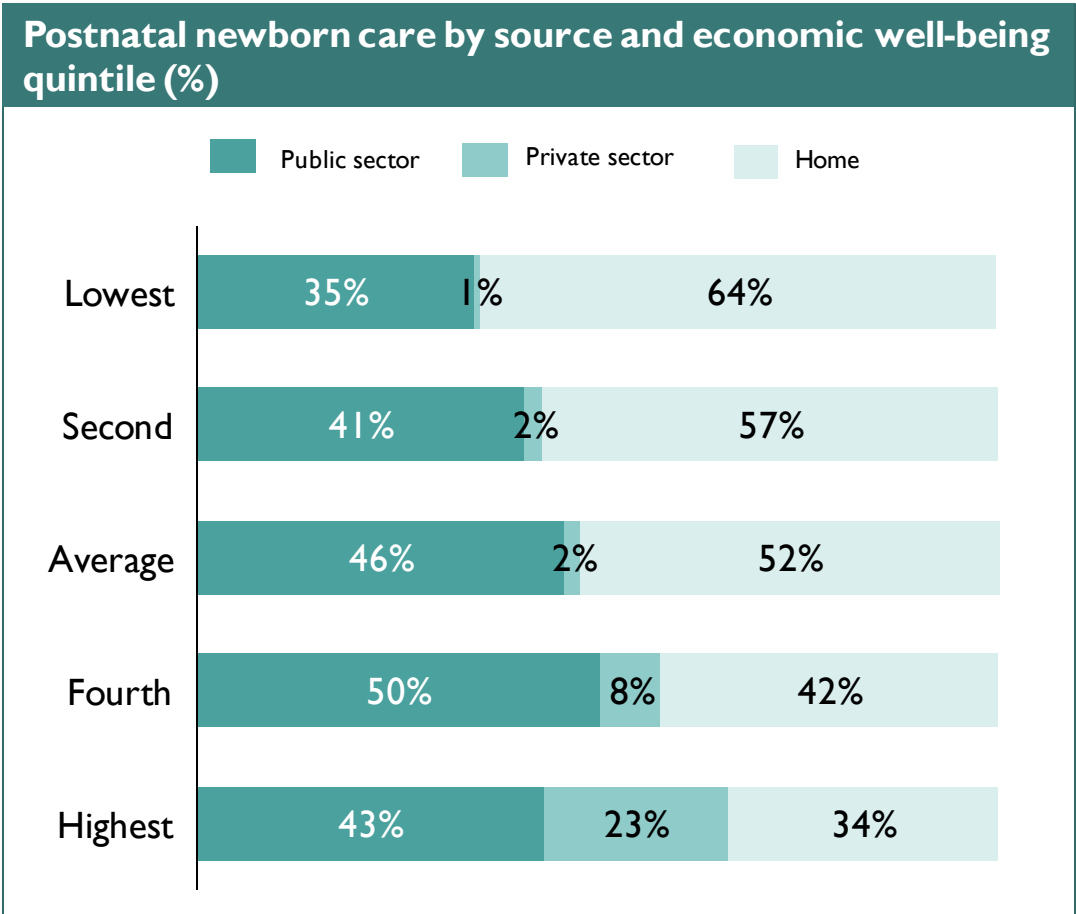
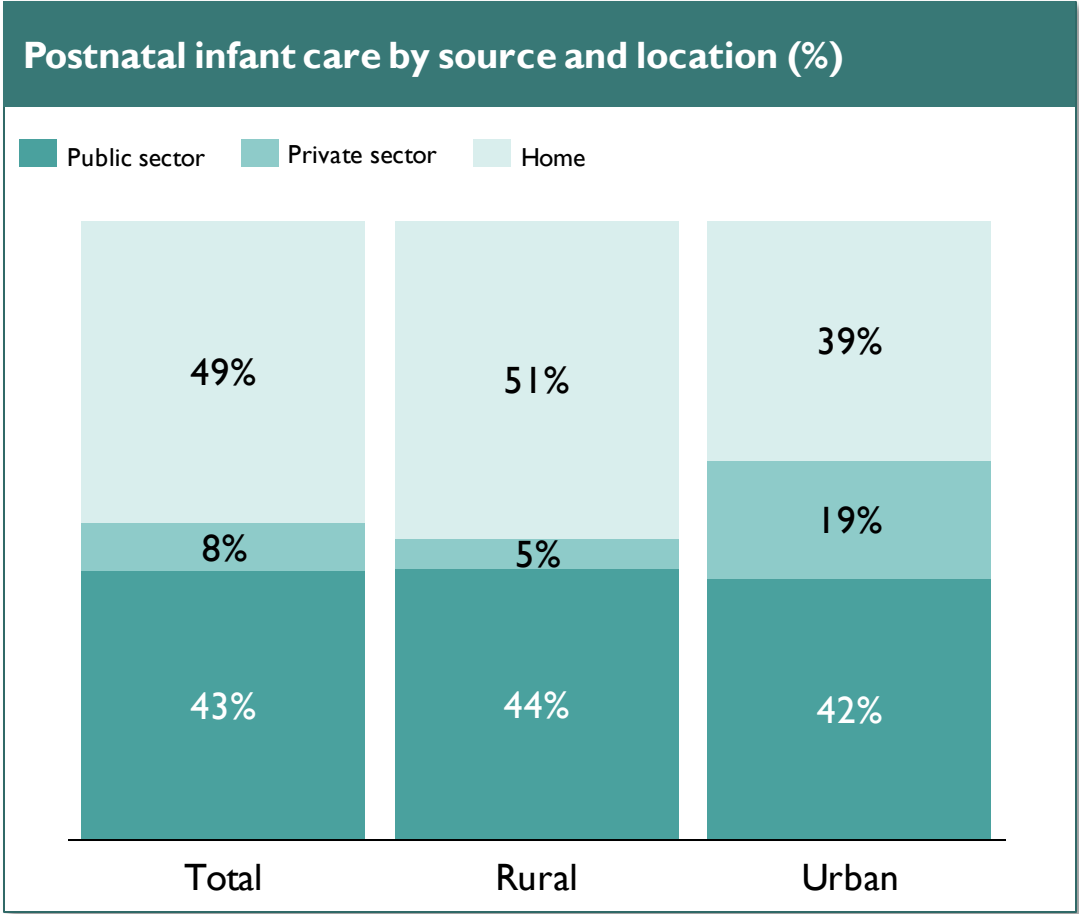


By economic quintile



Mothers in the highest age group (45-49) seek less postnatal care for their newborns

# A significant portion of postnatal newborn care is done at home



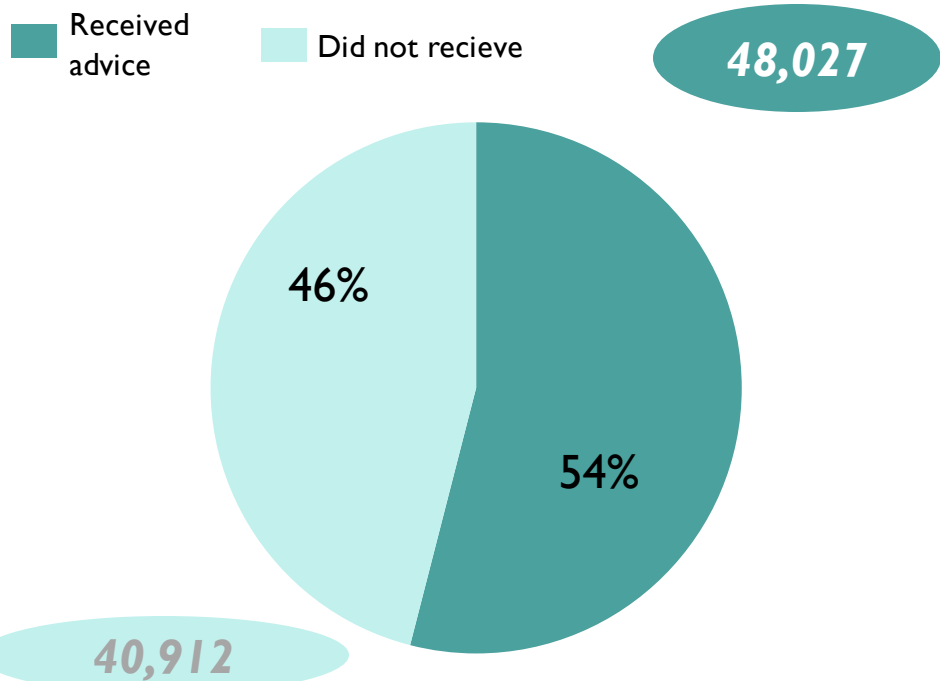
Strong differences between urban and rural areas in terms of post-natal care for newborns, particularly in the use of the private sector, which is much higher in urban areas, and also in the two highest economic well-being quintiles

# Just over half of caregivers sought advice or treatment for an ARI

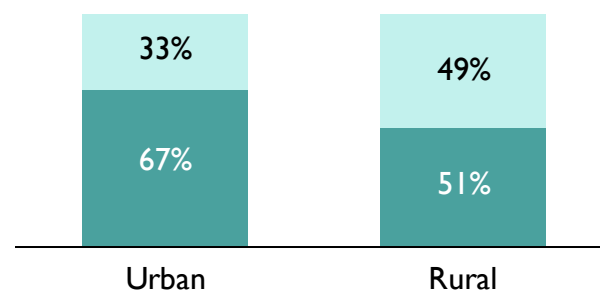
## Percentage of children under 5 years of age with ARI symptoms (%)

Estimated number of children

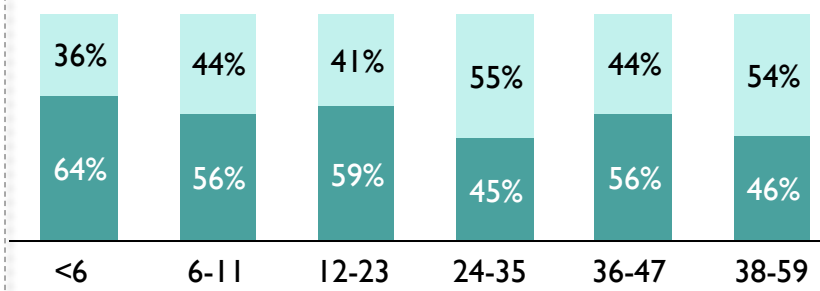
### Percentage for whom advice or treatment was sought



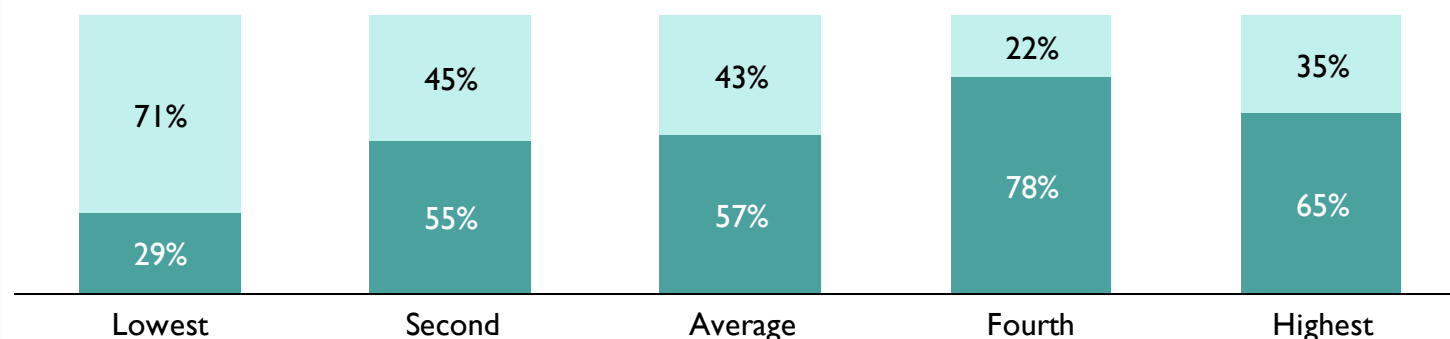
### By geographic zone



### By age group (months)



### By economic quintile



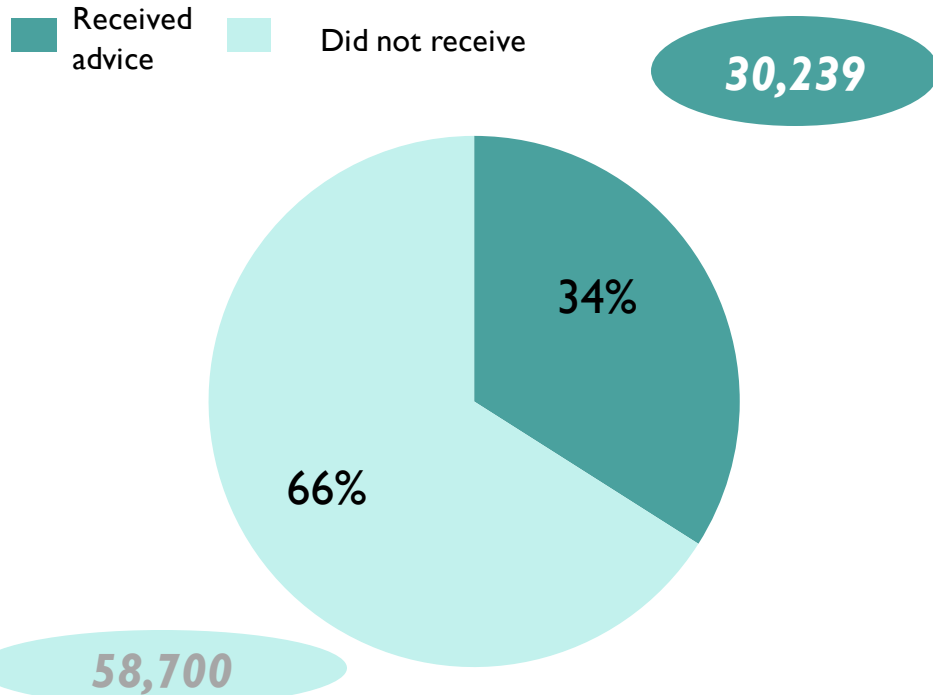
Children living in rural areas, aged 24 months and older, in the lowest economic well-being quintile were least likely to seek care

# However, a minority of parents sought treatment within two days of symptom onset, especially in rural areas and among the lowest quintiles

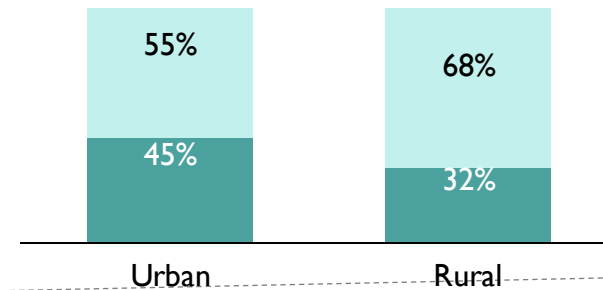
Percentage of children under 5 years of age with ARI symptoms (%)

Estimated number of children

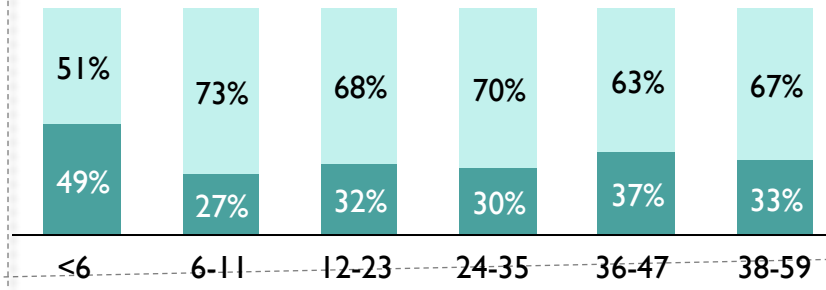
Percentage for whom advice or treatment was sought the same day or the next day



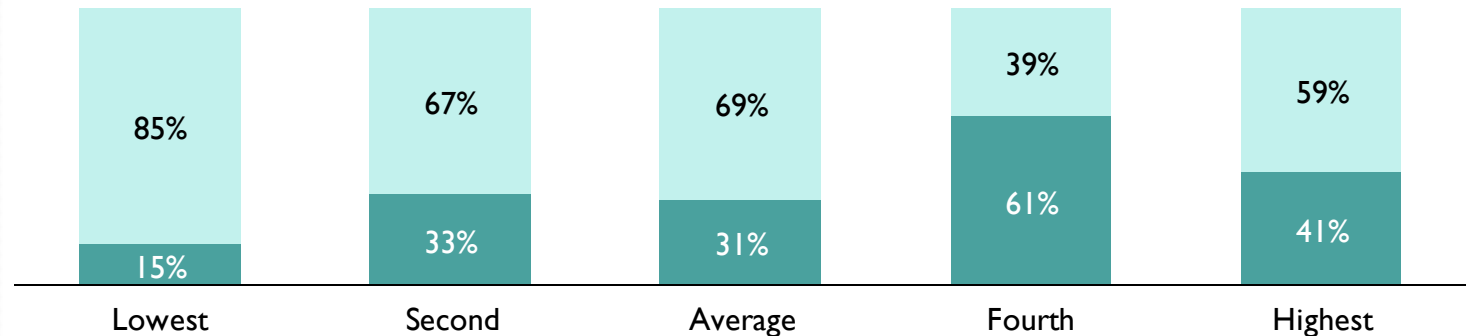
By geographic zone



By age group (months)



By economic quintile



For the youngest children (under 6 months), treatment is most often sought within 2 days

# Treatment was sought for less than half of children with fever

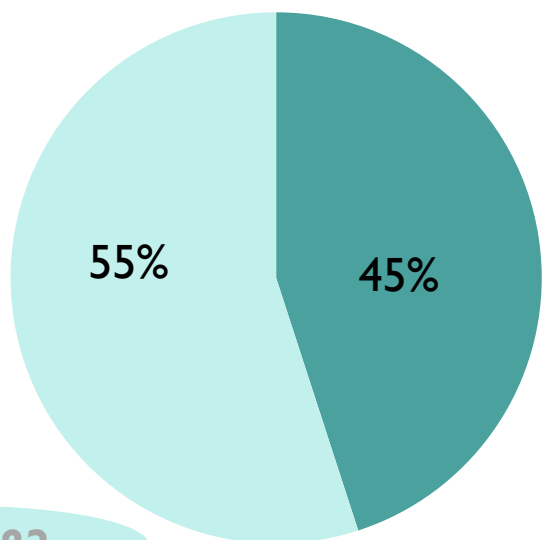
## Percentage of children under 5 years of age with fever (%)

Estimated number of children

### Percentage for whom advice or treatment was sought

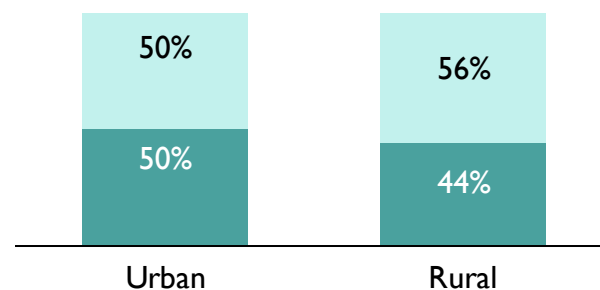
Received treatment  
Did not receive treatment

200,113

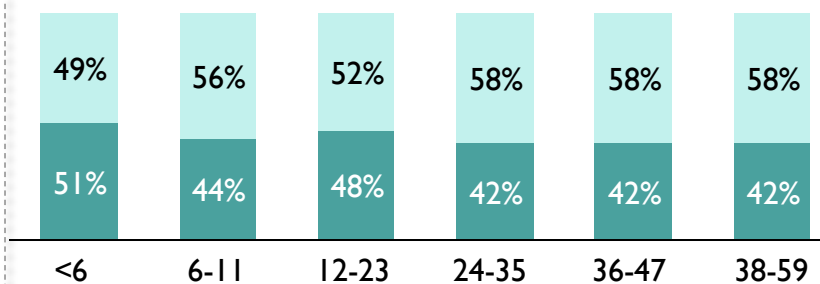


244,183

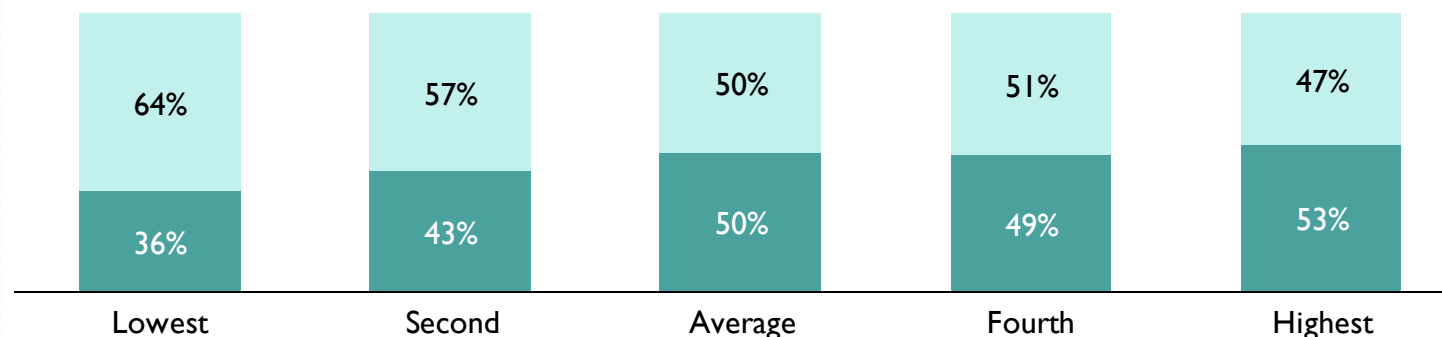
### By geographic zone



### By age group (months)



### By economic quintile



A child's age, place of residence, and economic well-being quintile play little role in seeking treatment for fever

# Only 1 in 3 parents sought treatment within 2 days of fever onset

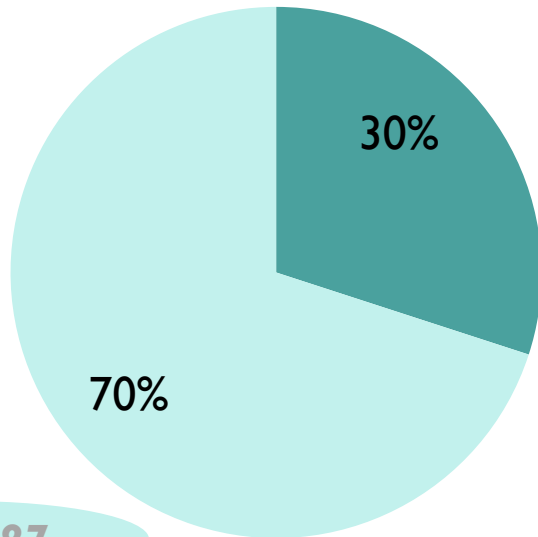
Percentage of children under 5 years of age with fever (%)

Estimated number of children

Percentage for whom advice or treatment was sought the same day or the next day

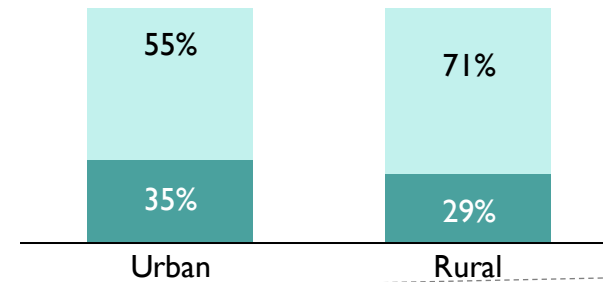
Received advice Did not receive

133,409

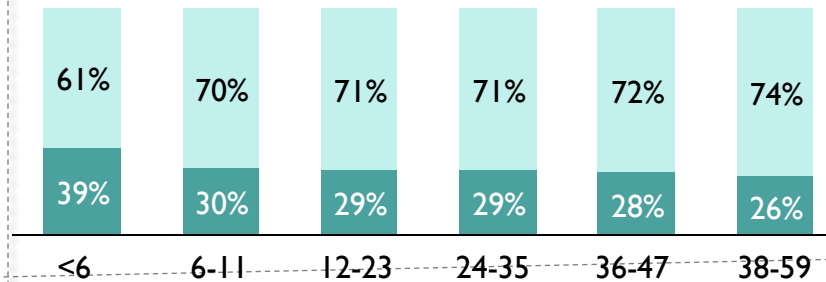


311,287

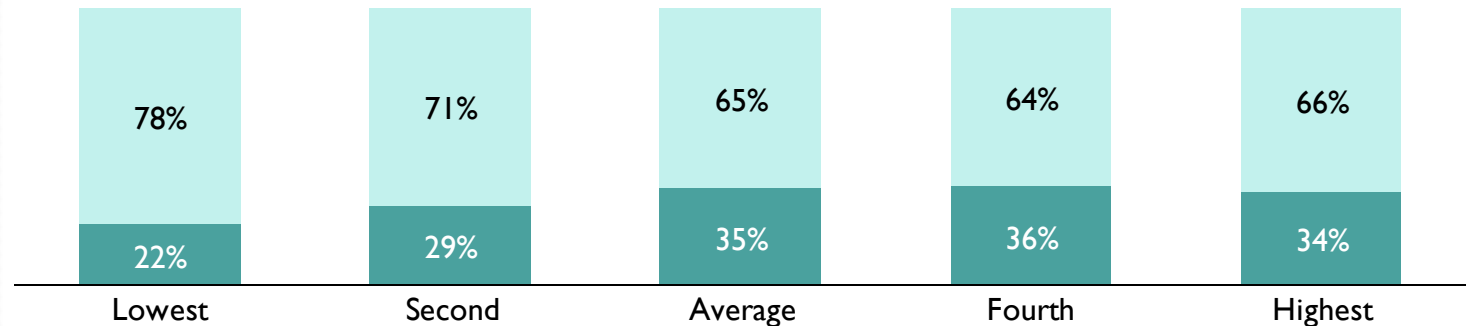
By geographic zone



By age group (months)



By economic quintile



Again, there is little difference in the age of the child, place of residence, or economic well-being quintile

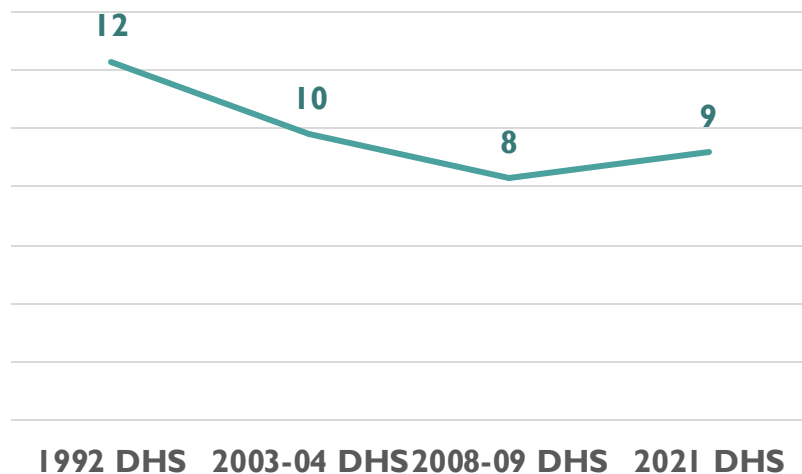


# The proportion of children suffering from diarrhea has changed little over the past 20 years

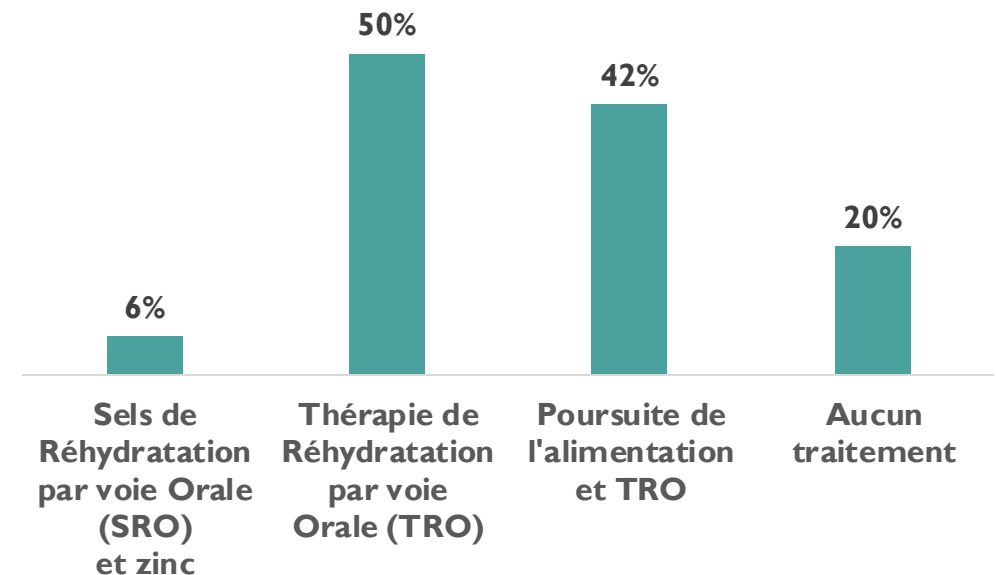
Estimated number of children under 5 with diarrhea in 2021 : 333,522

Percentage of children under 5 years of age who had diarrhea in the 2 weeks prior to the interview

Children with symptoms of diarrhea



Percentage of children under 5 years of age who had diarrhea in the 2 weeks prior to the interview



# Place of residence and level of economic well-being play little role in the prevalence of diarrhea

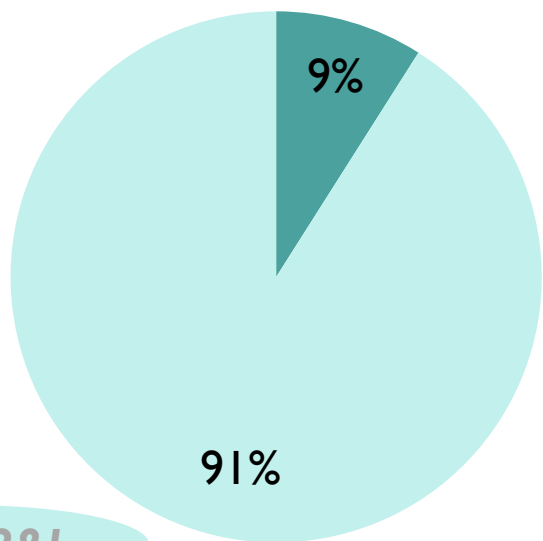
Percentage of children under 5 who had diarrhea in the 2 weeks prior to the interview (%)

Estimated number of children

## Prevalence of diarrhea

With diarrhea Without diarrhea

333,522

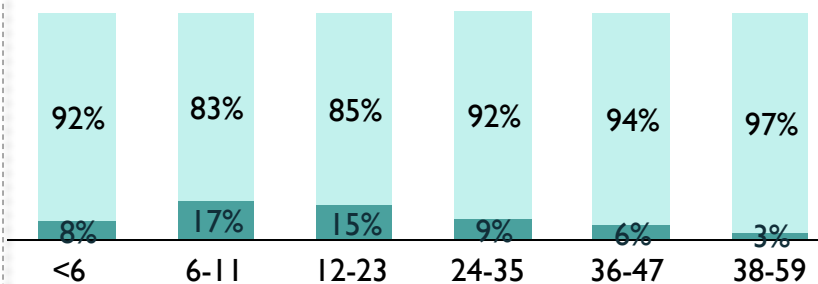


3,372,281

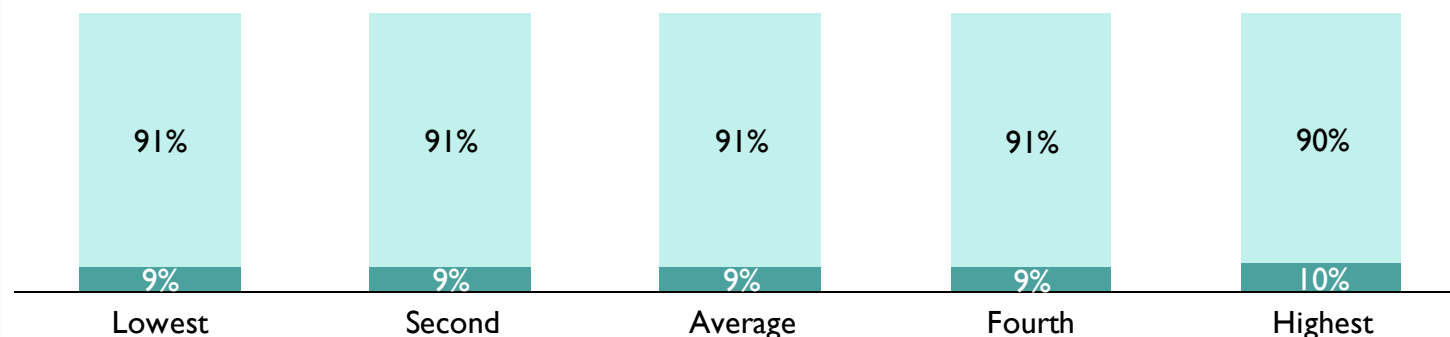
## By geographic zone



## By age group (months)



## By economic quintile

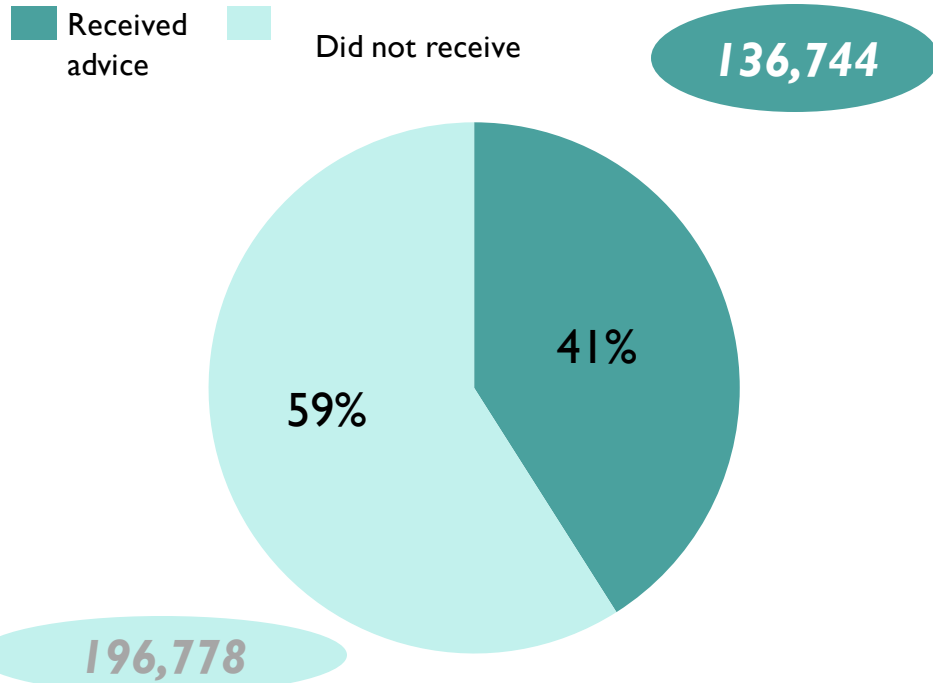


# Less than half of parents sought treatment for their child's diarrhea

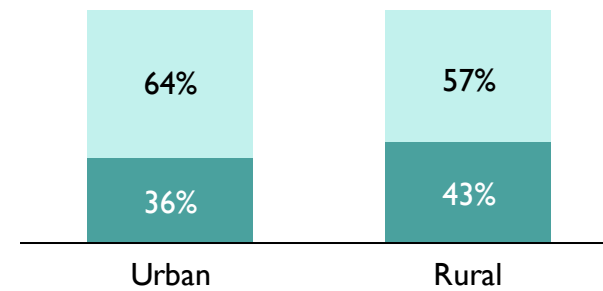
Percentage of children under 5 years of age who had diarrhea (%)

Estimated number of children

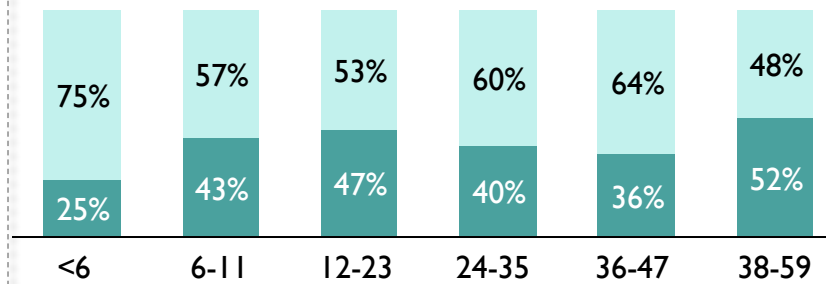
Percentage for whom advice or treatment was sought



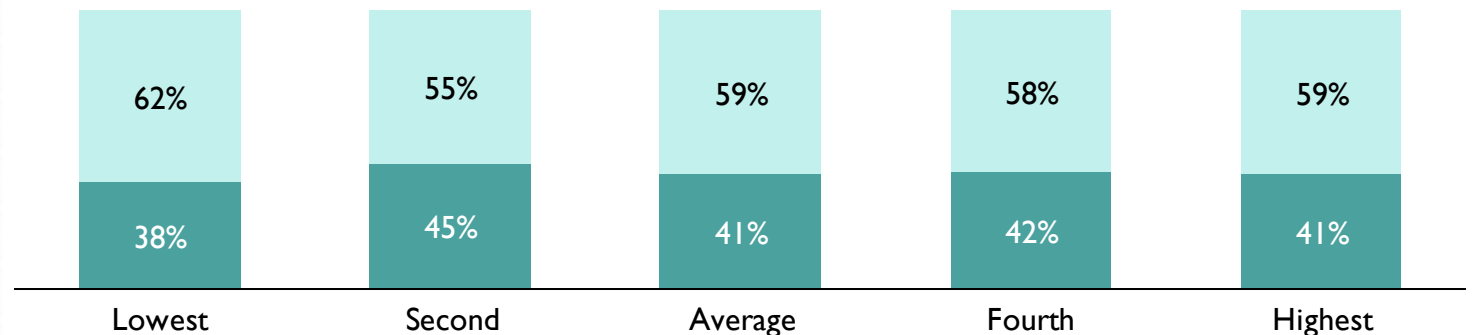
By geographic zone



By age group (months)



By economic quintile



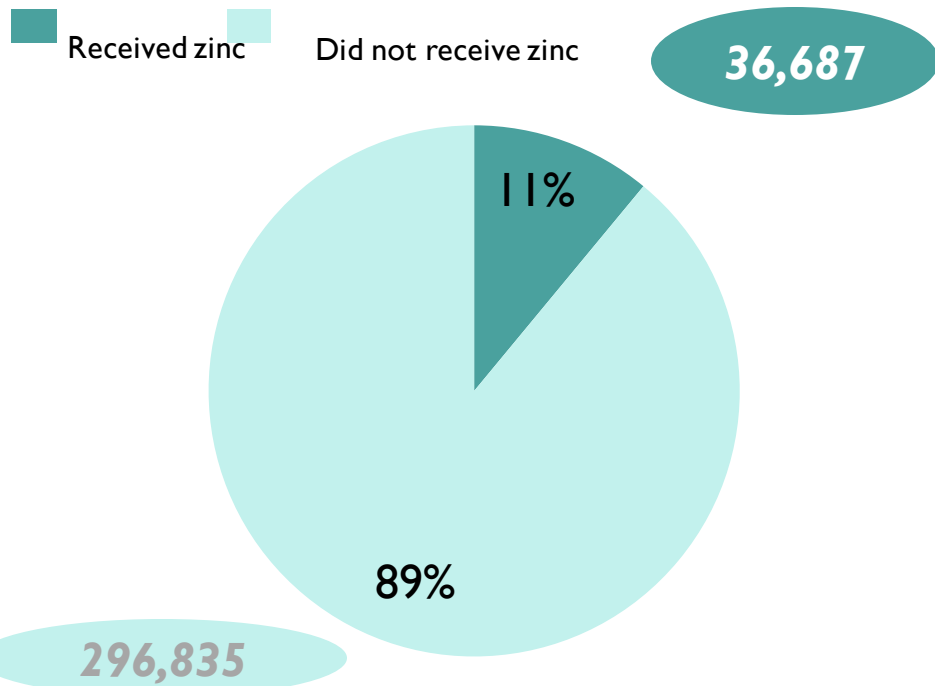
Similarly, location and level of economic well-being played little role in diarrhea care seeking. Parents of children in the lowest age group (under 6 months) sought the least care for diarrhea.

# Use of zinc to treat diarrhea is marginal, and is little influenced by location and level of economic well-being

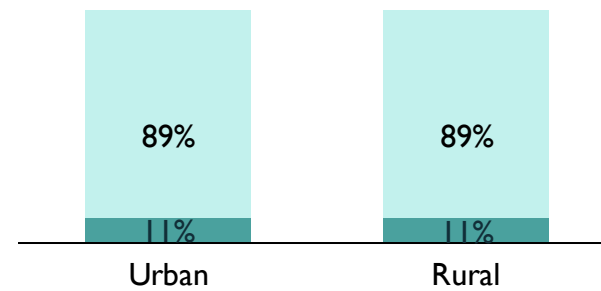
Percentage of children under 5 years of age who had diarrhea (%)

Estimated number of children

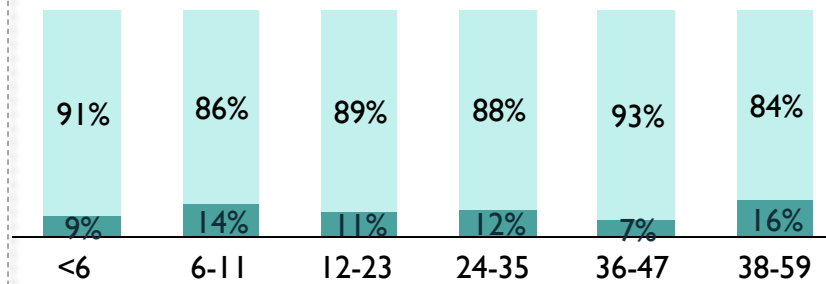
## Percentage given Zinc



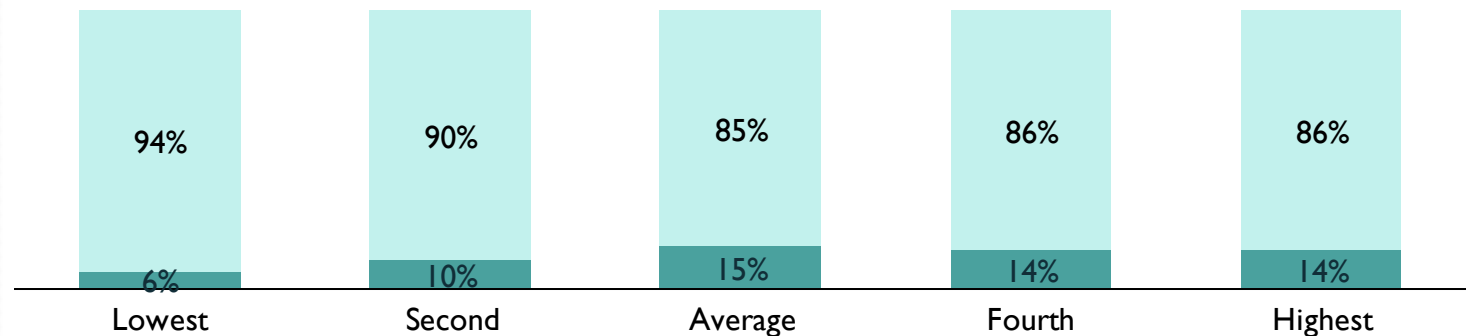
## By geographic zone



## By age group (months)



## By economic quintile



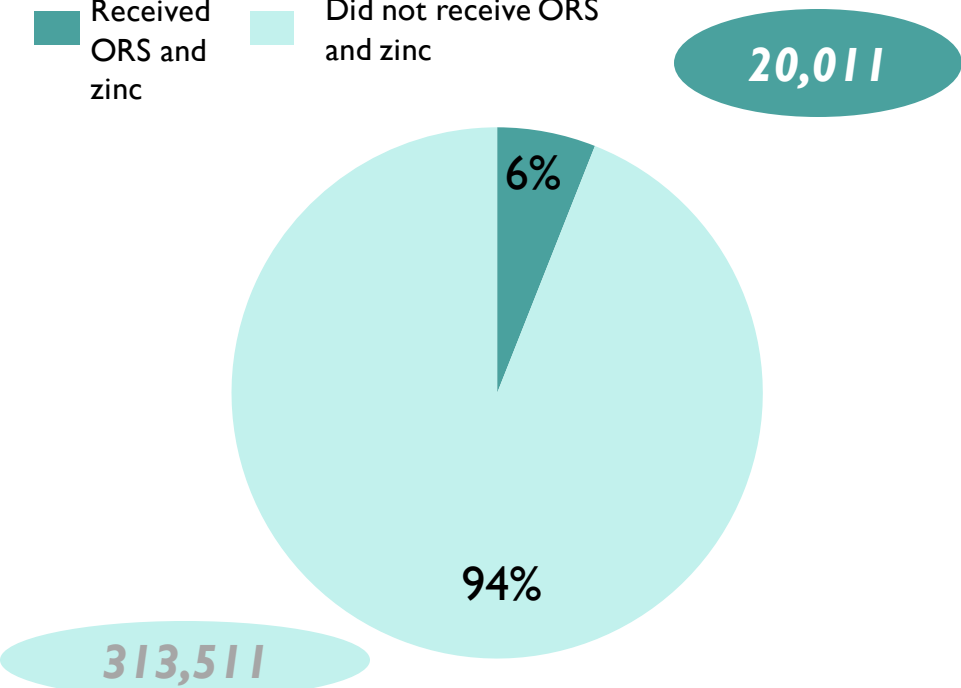
# Combined use of ORS and zinc is even lower

Percentage of children under 5 years of age who had diarrhea (%)

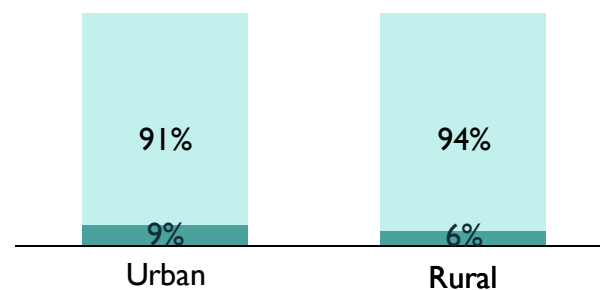
Estimated number of children

## Percentage given ORS and zinc

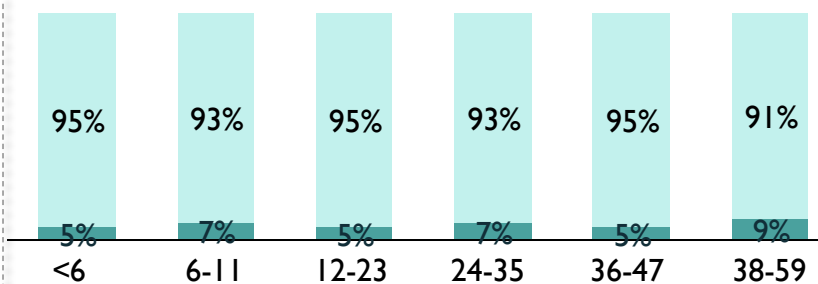
Received ORS and zinc  
Did not receive ORS and zinc



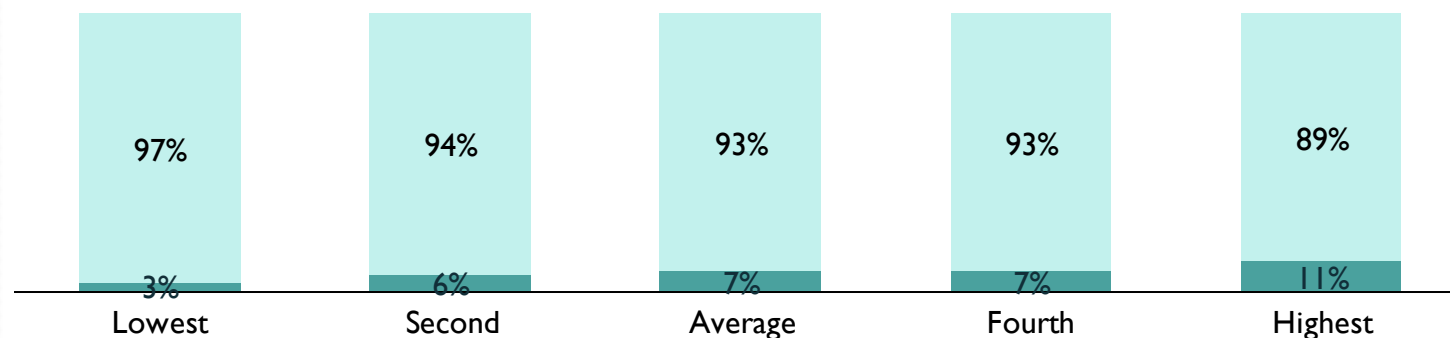
## By geographic zone



## By age group (months)

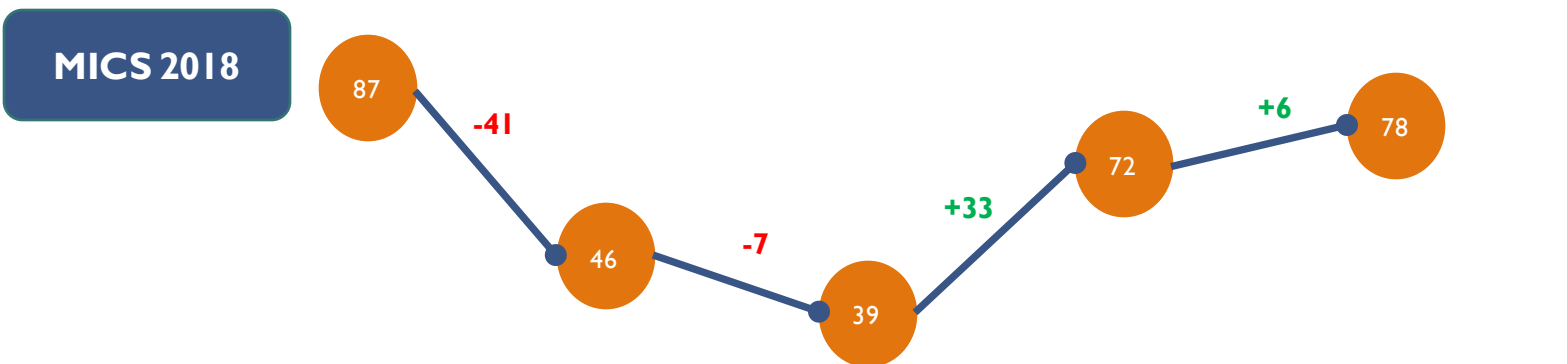
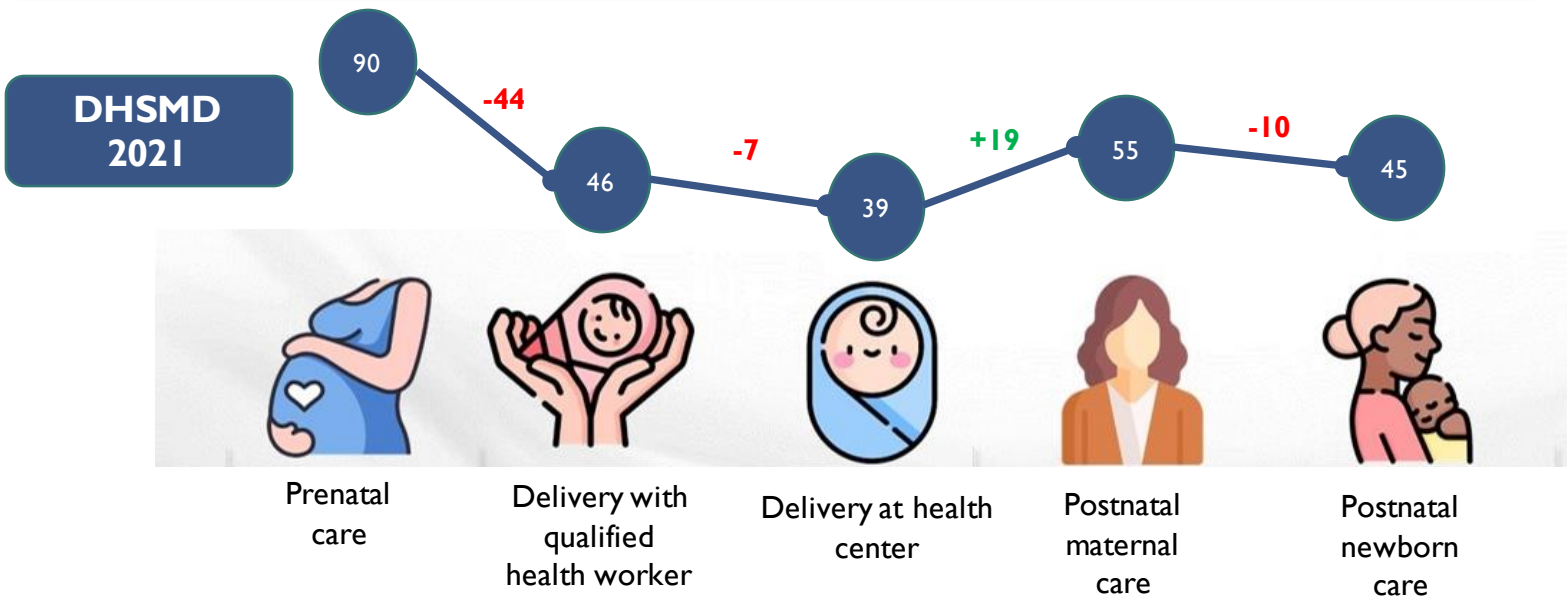


## By economic quintile



# A continuum of care that indicates a downward trend in postnatal care for children

## Continuum of Care for Maternal and Child Health - DHS and MICS



- We see the very clear drop between prenatal care and deliveries with a skilled attendant, then an increase in the rate of mothers receiving postnatal care, and then a further drop in the rate of children receiving postnatal care
- No change between 2018 and 2022 for the first 3 stages, but a clear deterioration for postnatal care, especially for children (from 78% in 2018 to 45% in 2021)

# Conclusion – Demand for MCH services

- While prenatal care is relatively well monitored in Madagascar, the situation for child health is more mixed. Whether it is postnatal care, which is declining for newborns and at lower levels than postnatal care for the mother, seeking care within 48 hours for diarrhea, fever, or respiratory infections, levels are low.
- While place of residence and quintiles of economic well-being affect maternal health (skilled delivery and postnatal care in particular), they appear to matter less for several child health indicators such as care-seeking for diarrhea or fever
- Too few parents (less than one in three) seek care for their child's fever within 48 hours
- Diarrhea is a major area of concern, affecting an estimated 333,000 children per year
  - It is particularly striking that the age group for which parents seek care the least is the youngest (less than 6 months) even though this is the age most vulnerable to dehydration
  - Treatment according to the national protocol (ORS and zinc) is administered to only 6% of children with diarrhea
  - It seems therefore that major awareness-raising efforts should be undertaken at all levels (pharmaceutical circuit, providers, parents), to invite to consult quickly and take the recommended treatment against diarrhea



# Overview of constraints affecting MCH markets



# Constraints– Principal functions - Demand (clients)

## **Demand (clients)**

- Insufficient understanding of target populations - little documentation available that speaks to the perspective of women and their families, their practices, their aspirations, and how to effectively reach them despite their vulnerability
- Few effective demand creation activities, and sharp decline in knowledge and use of some products (ORS, zinc)

# Constraints– Principal functions – Supply (providers)

## Supply (providers)

- Despite being an area that is dominated by the public sector and the not for profit private sector (community health), MCH is an important area of focus for the private for-profit sector, and its share of MCH care utilization is increasing. This indicates a potential that needs to be stimulated and supported.
- Not enough linkage between providers and pharmacists/drug stores
- Competition between professional societies and associations that are supposed to represent different categories of providers
- Emerging associations representing the private sector (such as GSPS) still need to demonstrate their added value to providers and refine their service offerings or member benefits
- Importance of traditional medicine, which is still widely used in rural areas and competes with the use of care in the health system
- Great influence of pharmaceutical companies, which are often the only way to get trained for private sector providers
- Lack of collaboration between public and private sector actors in the supply chain

# Constraints – Support functions – Financing

## Financing

- S&D
  - The insufficient scale of mutual health insurance and the long delays in reimbursement do not encourage private providers to favor this system
  - The difficulty of predicting cash flow for most private sector providers, whether in urban areas (competition exacerbated by high concentration) or in rural areas (patient poverty that limits fees charged) creates economic insecurity that encourages caution
- Subsidies
  - Subsidies for products (social marketing of products) and services (social franchise) in the private sector have disappeared or have been reoriented relatively abruptly, reducing the possibility for clients to seek care from the private sector and for providers to access the MCH products they need
- Banks
  - Lack of financial and managerial literacy among health providers - this is only a small part of their training
  - Culture that is adverse to borrowing money (shame about asking for a loan)
  - High interest rates from banks add to the large investment needed to open a practice and discourage providers from borrowing
  - Lack of interest from banks for a sector they do not know well and for which they perceive risks (low financial management capacity of providers, lack of visibility of economic prospects)
  - Lack of loan products specifically adapted to the health sector

# Constraints – Support functions – Information

## Information

- Supply
  - Low reporting (less than 25%) from the private sector for a variety of reasons (lack of computer equipment or poor access to cell phones, did not receive MoH reporting books, no perceived added value of the information provided, no demonstration of the use of the information provided for decision making)
  - Private providers do not sufficiently understand the data needed for the National Health Information System
- Demand
  - Since the end of social marketing programs, few effective demand creation activities (a division of the Ministry of Health is now in charge)

# Constraints – Support functions – Skills and abilities / management

## **Skills and abilities**

- Lack of supervision of the quality of services provided by private providers
- Lack of financial management capacity among providers
- Insufficient training in pharmacology for staff working in drug stores or pharmacies (except for pharmacists)
- Many private providers have not received ongoing training and medical schools and the MSP are not well equipped to provide it

## **Management**

- Low capacity of providers in financial management
- Insufficient training of depot staff

# Constraints – rules and regulations

## Regulations

- Multiple inconsistencies and regulatory uncertainties that penalize the private sector and create legal uncertainty that is not conducive to investment and risk-taking
- Law limiting the practice of public sector doctors in the private sector
- The number of legal actions against public providers is increasing but they are not equipped to deal with them and the existing associations do not have the resources to support all their members

## Taxes

- Lack of tax breaks or temporary tax exemptions to motivate health care providers to open a private practice outside of major urban centers

## Standards

- Since the dissolution of the National Hospital Agency (ANH) and the Department of Standards and Accreditation of the Ministry of Health in 2020, there are no accreditation standards for private sector hospitals

## Norms

- Supply
  - The majority of providers are not able to comply with the standards (too restrictive for their capacities) required by the Ministry, which discourages them from accepting supervision
- Demand
  - No awareness of expected quality of services - clients don't know what to expect

# FP Market Performance - Madagascar

A=Absent I=Insufficient M=Mismatch

Characteristics		A	I	M	Observations	
Central functions	Supply	X			<ul style="list-style-type: none"> <li>• <b>Fragmentation of Supply</b> of MCH products in the Private sector</li> </ul>	
	Demand		X		<ul style="list-style-type: none"> <li>• 1-Extremely low utilization rate of zinc ORS; 2-Decline in child health indicators; 3-Inadequate understanding of target populations</li> </ul>	
Support functions	Financing	S & D	X		<ul style="list-style-type: none"> <li>▪ Mutual health plans not on a large enough scale to attract private health care providers</li> </ul>	
		Grants	X		<ul style="list-style-type: none"> <li>▪ Subsidies for MCH products to pharmacies have disappeared relatively suddenly</li> </ul>	
		Banques		X		<ul style="list-style-type: none"> <li>▪ 1-High interest rates; 2-Reluctance to borrow money (difficulty in predicting income, shame); 3-Banks not interested in the health sector (perceived high risks); 4- Lack of financial literacy among health professionals</li> </ul>
	Info.	Supply		X		<ul style="list-style-type: none"> <li>▪ Low transmission of private sector data (technological challenges, no motivation - don't see the value or how data is used for decision making)</li> </ul>
		Demand			X	<ul style="list-style-type: none"> <li>▪ Since the shift in SMI's social marketing focus to community health, there has been very little effective demand creation activity.</li> </ul>
	Skills, Abilities			X		<ul style="list-style-type: none"> <li>▪ 1- Pharma companies are influential as they are often the only training option for the private sector, but few benefit from it; 2- Inadequacy in trained personnel - too many paramedics and nurses, not enough doctors</li> </ul>
	Management			X		<ul style="list-style-type: none"> <li>▪ Support to health markets has mainly benefited the public sector - the private for-profit sector feels excluded and misunderstood</li> </ul>

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A=Absent I=Insufficient M=Mismatch

Characteristics		A	I	M	Observations
Regulatory aspects	Rules		X		<ul style="list-style-type: none"> <li>1- Multiple regulatory inconsistencies that penalize the private sector and create legal uncertainty that is not conducive to investment and risk-taking; 2- Public sector health professionals are authorized to practice in private practice, but many of them do not follow the same restrictive rules as private sector health professionals (e.g., public sector doctors practice in a private sector practice outside of their home)</li> </ul>
	Duties, Taxes	X			<ul style="list-style-type: none"> <li>Lack of tax breaks or temporary tax exemptions to motivate health care providers to open a private practice outside of major urban centers</li> </ul>
	Standards	X			<ul style="list-style-type: none"> <li>Lack of accreditation standards for private sector hospitals (ANH and Accreditation and Standards Department dissolved by the Ministry of Health)</li> </ul>
	Norms	Supply		X	
Demand		X			<ul style="list-style-type: none"> <li>No awareness among clients and families of the quality expected of services</li> </ul>



# Theory of change for MCH markets in Madagascar

## Questions

**Results of the market approach: Theory of Change**  
**What is our vision of a functional market?**

- A MCH market where private sector providers have access to the resources they need (products, training and coaching, financing) to provide good quality service to their clients

**Market Approach Results: Systemic Change**  
**Based on your analysis, what systemic changes need to take place and how do you achieve your vision of a functional market?**

**Market Interventions**  
**What are the potential activities to achieve market system change?**  
**Who are the potential market players who could carry out these activities?**

Strengthen the skills and abilities of private providers

- . Explore how the Regional Training Offices (RTOs) that have been established by the public system can also be used to provide training to private providers in their regions
- . Harmonize the roles of the different actors involved in private sector training
- . Explore/develop partnerships with nursing and midwifery institutions
- . Strengthen and support the new partnership between the Ministry of Health and the Groupement du Private sector de la Santé (GSPS) to define the roles and responsibilities related to the institutionalization of training in the private sector
- . Integrate training modules developed by SHOPS Plus into other medical schools
- . Support the Fonds Malgache de Formation Professionnelle (FMFP) to implement a continuous development program for private providers
- . Support updates to supervision and training tools.

Improving the private sector supply chain for MCH products

- . Discuss with pharmaceutical distributors to assess their interest in adding SMI products to their portfolio
- . Identify what financing would be needed to help them re-launch these products in the private sector (distribution, marketing and demand creation costs), and when profits would be sufficient to cover these costs
- . Find financing to cover this activity

Redirecting market support efforts to the private sector

- . Optimize existing Ministry of Health platforms to share policies and guidelines with the private sector
- . Use the database generated by the private sector census to expand the GSPS and AHPM network membership at the regional level

Improving access to financing for private sector health providers

- . Connect GSPS to financial institutions so they can share current needs
- . Support Financing institutions to develop products targeting the health sector