

# Introducing the Alcançar project:

Results from health system innovations to improve maternal, newborn and child health in Nampula Province, Mozambique

April 20, 2022





### Agenda

- Welcome
- USAID opening remarks
- MoH introduction
- Project overview
- Project results
- Q+A
- Closing remarks



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### **Presenters**









#### **Dr. Geoffrey Ezepue**

Director Alcançar Project

#### **Dr. Dulce Nhassico**

MCH/FP Team Lead USAID

#### Dr. Selma Xavier

Provincial Medical Chief Nampula Province

#### Dr. Aguinaldo Mariano

Sr. Technical Advisor for MNCH Clinical Services Alcançar Project



### USAID opening remarks

APRIL 2022

#### ANNUAL REPORT ON KEY MATERNAL AND CHILD HEALTH INDICATORS - NAMPULA 2021

#### PROVINCIAL HEALTH SERVICES

PROVINCIAL REPRESENTATIVE COUNCIL OF NAMPULA

Republic of Mozambique



### Nampula Province Profile

- **Population:** 6,490,271
- WRA: 1,489,960; 23%
- Eligible for cervical/uterine cancer screening : 954.758; 15%
- Health facility network: 242
- Maternities: 207
- Hospitals: 9
- Theoretical radius: 10.7Km



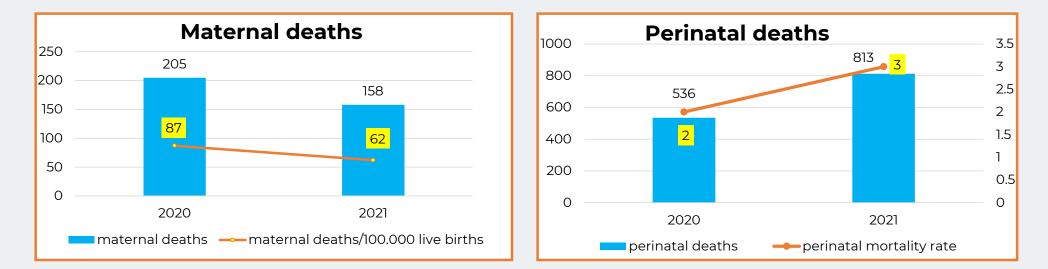


### **Coverage and compliance rate of the MCH Program's Main Indicators**

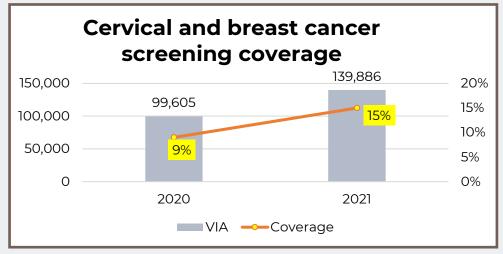
Indicator	Monthly target		Accomplished		Evolution	Coverage	Compliance
	groupl	Goal	2020	2021	%	%	index %
ANC	316 756	316 756	373 237	468 047	25%	148%	148%
Institutional deliveries		277 668	238 210	258 397	8%	91%	93%
PNC	285 080	279 379	252 243	276 812	10%	97%	99%
FP (new users)	1 443 315	460 417	491 447	534 763	9%	37%	116%
FP/SRH (CYP)		818 756	804 573	922 389	15%		113%
Well-child visits							
0-11 months	218 939	218 939	230 714	256 099	11%	117%	117%
Well-child visits							
1-4 years	747 842		137 879	162 641	18%	22%	
Total well-child visits			1140 825	1 326 220	16%		
Total sick child visits			2 028 570	2 313 574	14%		

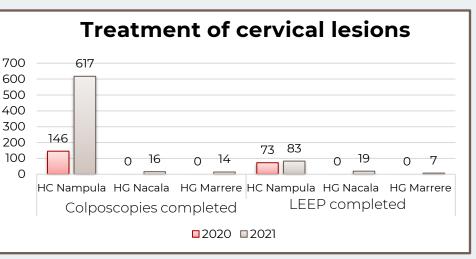


### Nampula Province Profile



#### **Cancer Screening and Treatment**





HC=Central Hospital; HG=General Hospital; LEEP=loop electrosurgical excision procedure

Source: SISMA

VIA=visual inspection with acetic acid

### Constraints

- Most health facilities do not have sufficient PPE material
- Insufficient amounts of disinfection solution and decontamination of spaces and surfaces
- Difficulty in partograph completion and preparation of transfer guides and registers
- Poor management of obstetric and neonatal complications
- Instability of SISMA (HMIS system) which results in poor quality of data reported
- Poor functioning of the Death Audit committees at all levels, and of the Quality and Humanization committee
- Insufficient MCH Nurses to meet the demand of maternal and newborn health services, resulting in overburdening
- Insufficient carbon dioxide cylinders for cryotherapy, and frequent malfunctions of the appliance in some health facilities which paralyzes activity; lack of acetic acid for visual inspection in facilities without partner support; lack of speculum for mass screening
- Low use of the maternity waiting homes due to their unfavorable state
- Weak retention in the entire PTV cascade
- Low coverage of Polymerase Chain Reaction test (PCR) in children younger than 2 months
- Refusal to initiate ART in the PNC
- Insufficient registers for ANC, PNC, FP/RH because these are acquired by local partners



# Thank you!



### PROJECT OVERVIEW





### Achieving Quality Health Services for Women and Children in Nampula

5-year project 2019-2024 USAID funded



### Goals

- Support the Government of the Republic of Mozambique to reduce maternal, newborn and child mortality in Nampula Province
- Establish Nampula Province as a model health system in the implementation of high impact, high quality, patient-centered and gender-responsive MNCH services







We are a USAID-funded, 5-year program



#### CONSORTIUM PARTNERS







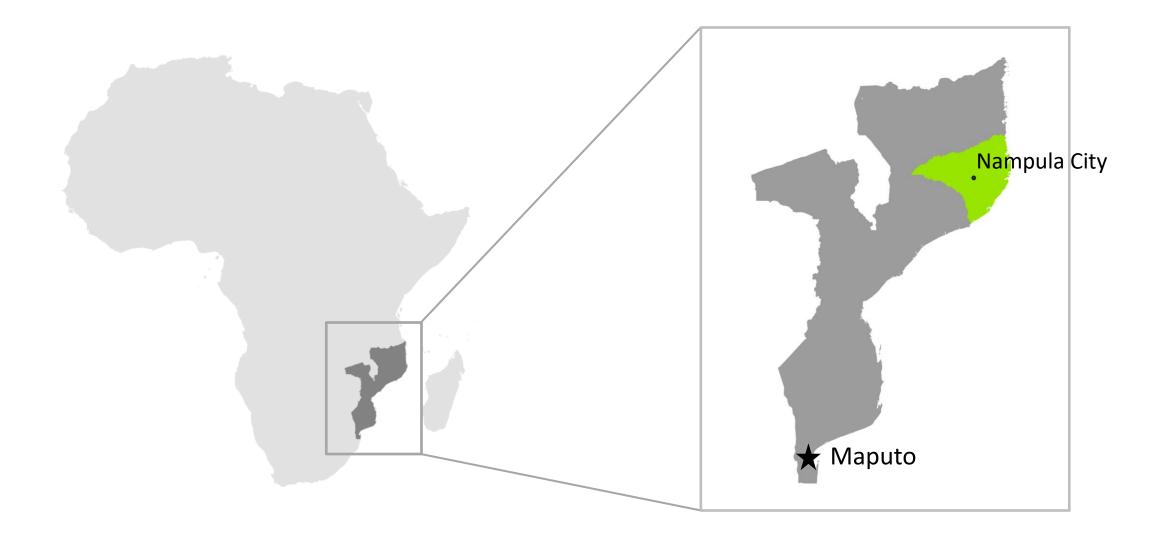




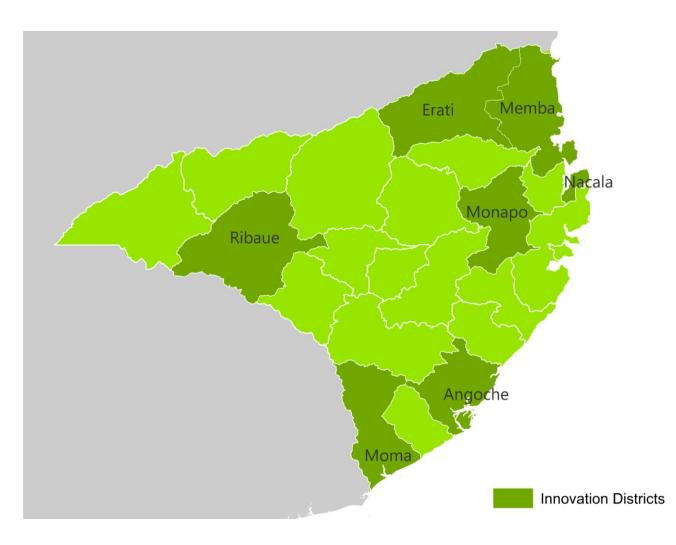




### **Mozambique: Nampula Province**



### Nampula Province



- Alcançar works in all 23 districts of Nampula Province
- Key innovations were first implemented in 7 districts (Innovation Districts)
- Erati, Memba, Nacala Porto, Monapo, Angoche, Moma and Ribaue
- Now using phased approach to expand innovations to all 23 districts

## Ensure delivery of evidence-based high-impact practices along the continuum of care

PREGNANCY	INTRAPARTUM	POSTNATAL / POSTPARTUM	CHILD
<ul> <li>Increased use of facility-based services</li> <li>Provision of quality antenatal care</li> <li>Management of pregnancy complications</li> </ul>	<ul> <li>Skilled care at birth</li> <li>Management of progress of labor</li> <li>Pre-referral stabilization and transfer protocols</li> <li>Management of complications</li> </ul>	<ul> <li>Routine post-natal care</li> <li>Management of newborn and post-partum complications</li> <li>Post-partum family planning services</li> </ul>	<ul> <li>Prevention and management of newborn and childhood illnesses</li> <li>Routine immunizations</li> <li>Growth monitoring and screening/treatme nt for malnutrition</li> </ul>

Male engagement and female empowerment curriculum; adolescent responsive health services; humanized and respectful care; improved referrals

## Strategies to deliver evidence-based high-impact practices

PREGNANCY	INTRAPARTUM	POSTNATAL/POSTPARTUM	CHILD		
On-site clinical technical support and mentorship, formalized in the District Mentorship Model					
Remote trainings to nurses and APEs					
Community mobilization and care-seeking for safe	QI collaboratives ar	Micro-planning and implementation of			
pregnancy	Obstetric and newbor	integrated mobile brigades			
Collaboration with Transform Nutrition	mParto application	Improving care for small and sick newborns	Collaboration with MRITE (global immunization		
		Collaboration with Improved Family Planning Initiative (IFPI)	program) and Advancing Nutrition		



# PROJECT RESULTS

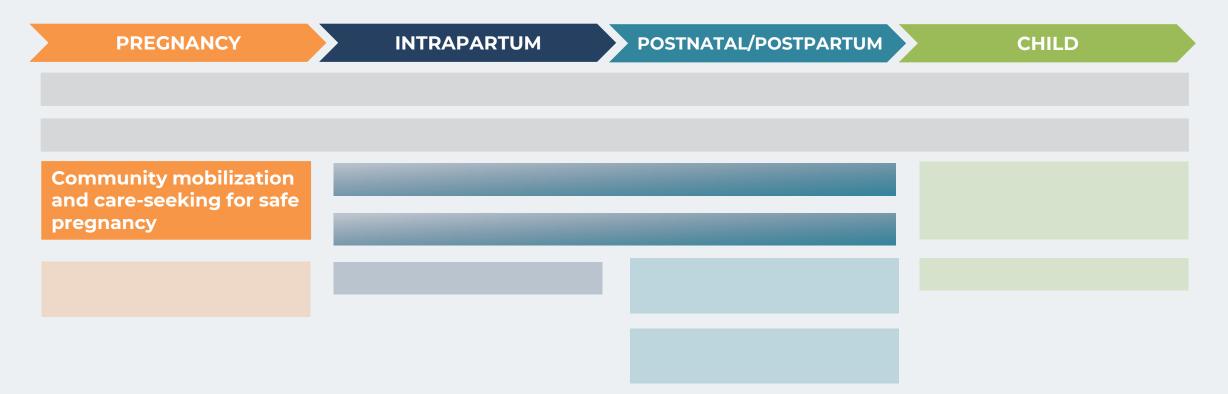


## Strategies to deliver evidence-based high-impact practices

PREGNANCY	INTRAPARTUM	POSTNATAL/POSTPARTUM	CHILD	

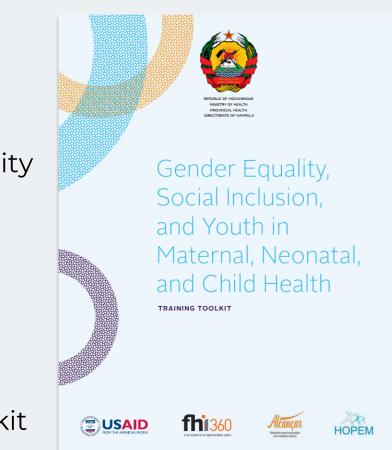


## Strategies to deliver evidence-based high-impact practices



### Community mobilization and careseeking for safe pregnancy

- Partners Ehale, HOPEM and AJN leverage the community health platform to create demand for services
- Strengthen referral and counter-referral networks
- Strengthen capacities of health committees, comanagement committees, savings groups, mothers/fathers' groups, and APEs
- Implement Alcancar's Gender Equality, Social Inclusion, and Youth in Maternal, Neonatal, and Child Health Toolkit

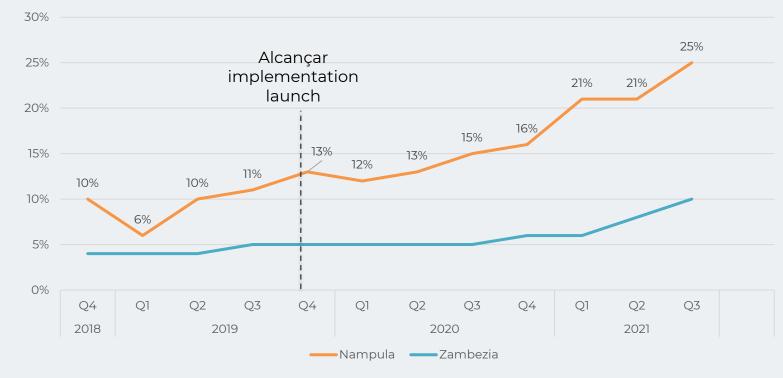


Since project start, across Nampula we have:

- Reached more than **1.8 million people** with health education sessions
- Trained **over 6,000 members** of Health Co-management Committees on care-seeking and danger signs in pregnancy

### Increasing rates of early antenatal care

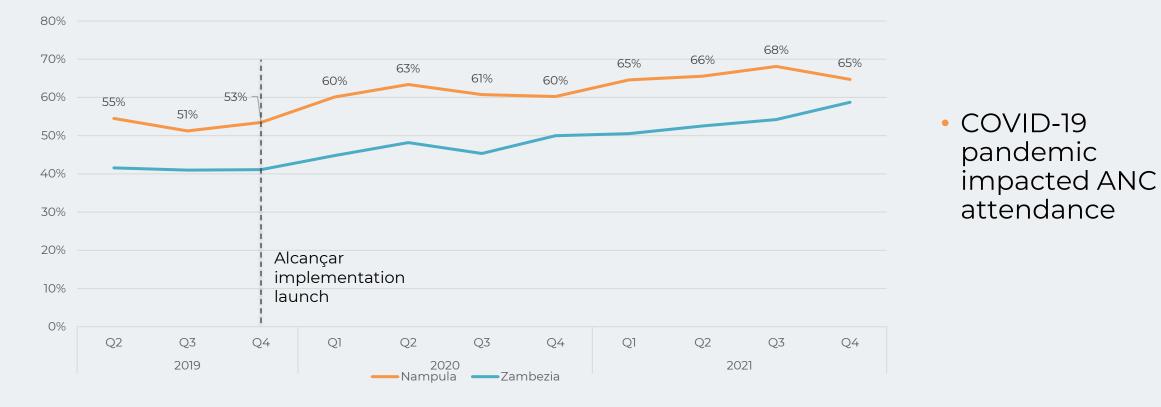
Percentage of first ANC consultations that occurred early (<12 weeks gestation)



- Increased referrals to health facilities
- Community mobilization and education on early antenatal care attendance
- Improvements in respectful care at health facilities
- Clinical mentoring and support to MCH nurses

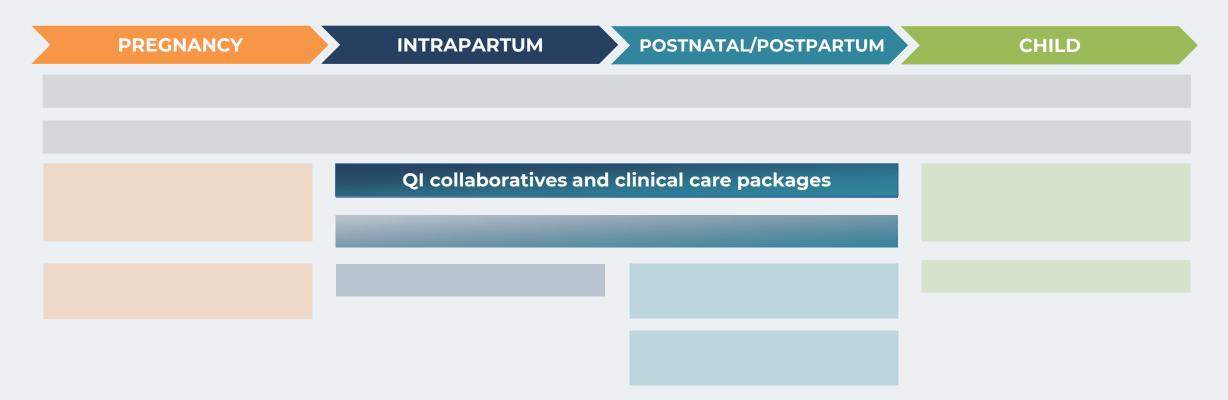
### **Increasing antenatal care continuation**

Percentage of women registered for ANC that completed at least 4 ANC consultations





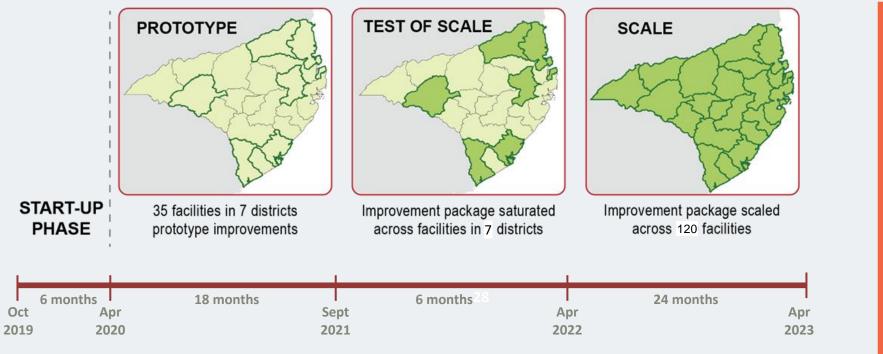
## Strategies to deliver evidence-based high-impact practices



### **Quality improvement (QI) collaboratives and clinical care packages**

- Breakthrough Collaborative Model, developed by partner IHI
- Alcançar supports facility and district QI teams to identify gaps in service quality, propose and test ideas to improve them, and to monitor change over time
- Monitoring is focused on patient-level adherence to clinical care packages
  - -Clinical care package is a set of evidence-based practices that, when performed reliably, have been proven to improve patient outcomes
- Routine collaborative learning sessions bring facility and district teams together to learn from each other

### **QI collaboratives**



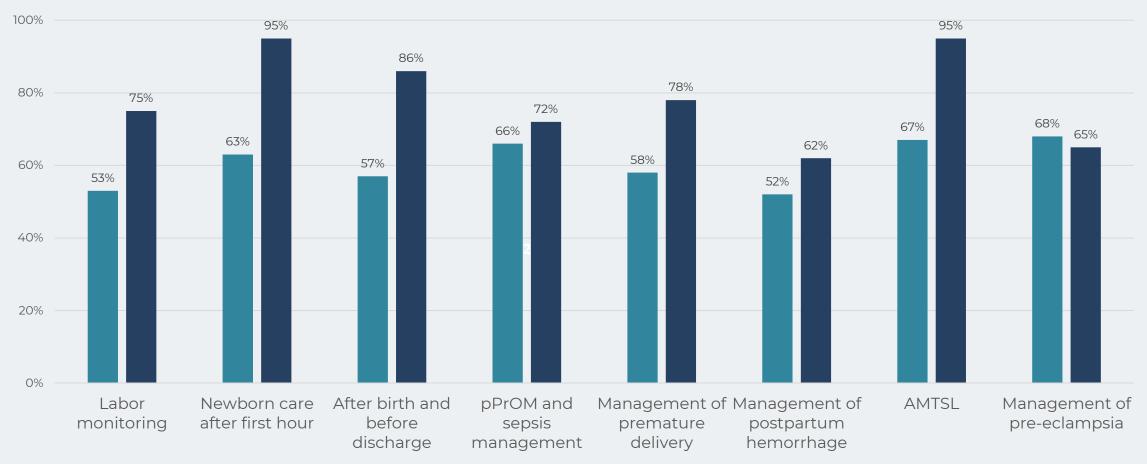
"... now when I check the data of the (QI) collaborative process indicators ... I can notice improvement which makes me believe that the methodology of QI has helped."

Alefe, Health Statistics Technician, Moma District

• Gradual handover of QI implementation to Provincial and District MOH

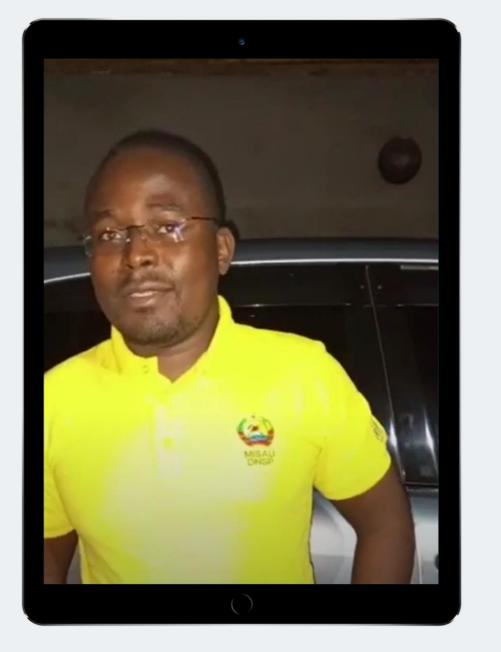
## QI collaboratives increase effective coverage of high-impact practices

Percent of cases adhering to elements of evidence-based clinical packages 2020 Q3 vs. 2021 Q3



■2020 Q3 ■2021 Q3

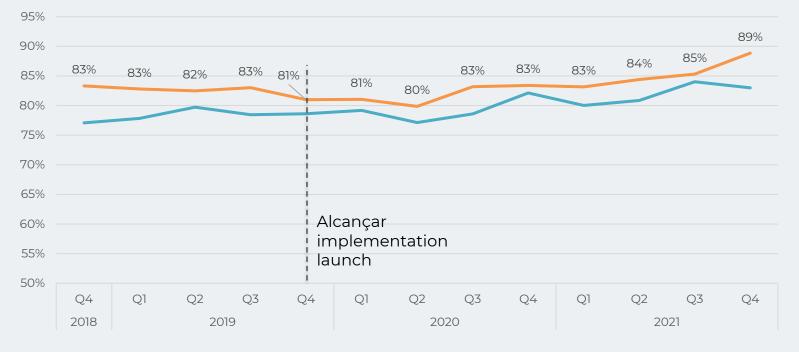
#### **Dr. Nalcil Biassone** Public Health Division Chief, Nampula



Translation: Good afternoon, good night, good morning, wherever you are. I'm Nalcil Biassone and I'm medical doctor and luckily, I'm one of the Quality Improvement Specialists. I'm coming to give my testimonial about the Quality Improvement project that I implemented after being trained as a Quality Improvement Specialist. In 2020 I had the privilege of being trained and at that time, as a Specialist I had the responsibility of choosing a QI project that would change the history within my health facility, which was Memba health center and at the time we had low coverage rate of pregnant women who started antenatal care with a gestational age below 12 weeks. That was a challenge for us. We had a coverage of about 6% and that was very low comparing with the provincial. As QI Specialist, it gave me this responsibility to be able, based on the science, to apply and improve the situation. So, I had to set a goal, which was increase the percentage of women who start ANC under 12 weeks, from 6% to 30% from September 2019 to September 2020.

### **Quality of intrapartum care**

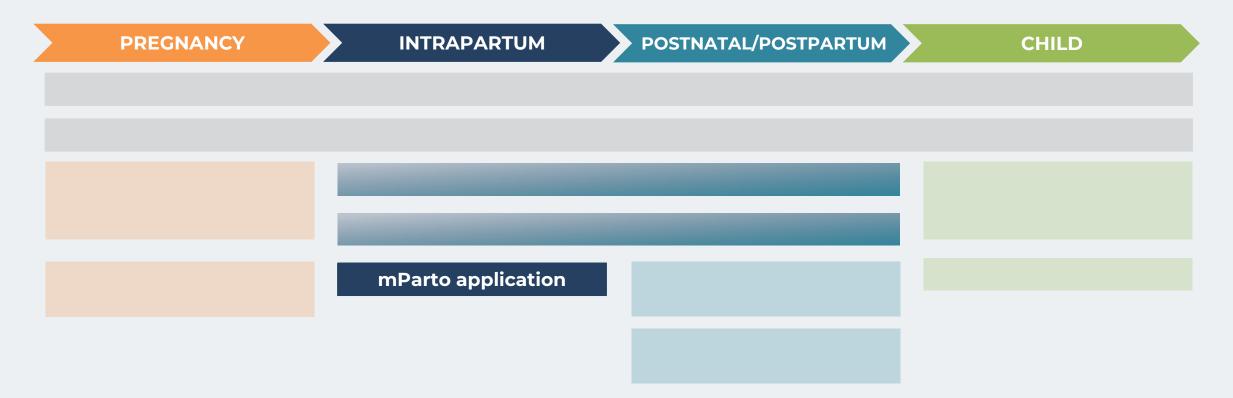
Partograph usage: Percent of institutional deliveries monitored with a partograph



"Today we can observe a mastery in the completion and interpretation of the partograph by all MNCH nurses [...] It is necessary to create an opportune environment for the evaluation and routine discussion of the partographs because it is in this discussion that failures are detected." Dr. João Materusse



## Strategies to deliver evidence-based high-impact practices



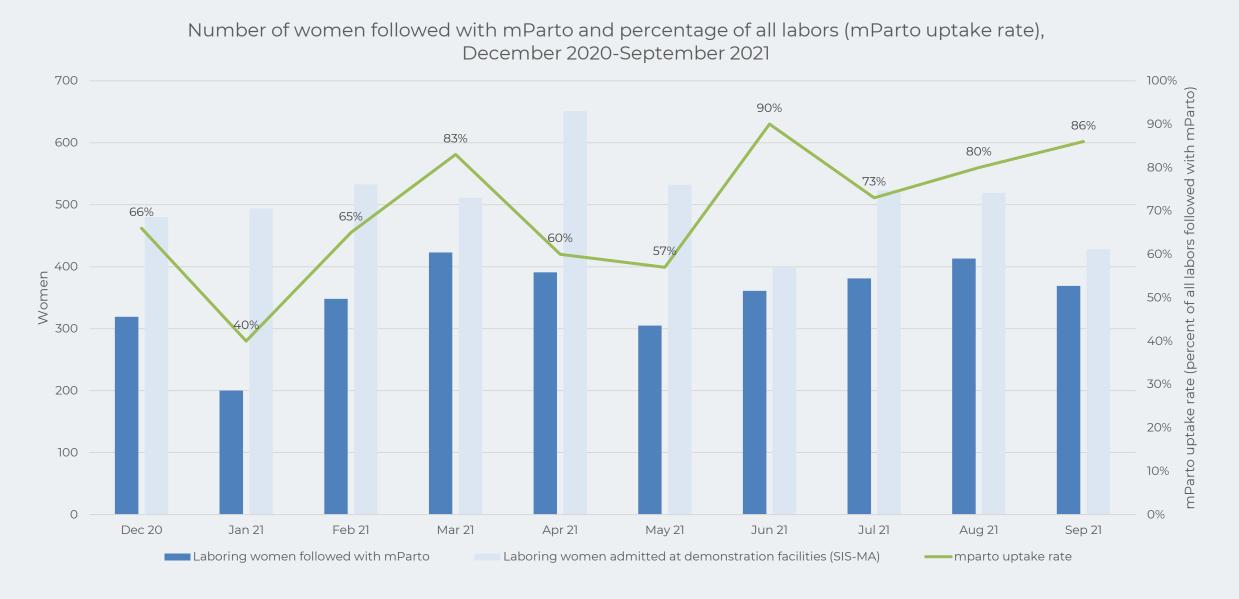
### mParto application

- Developed by partner Dimagi
- Automatic prompts and real-time decision support
- Improves:
  - -monitoring of women during labor and delivery
  - -risk screening at admission, adherence to labor management protocols, and pre-discharge counseling
- Started in July 2020 in 5 health facilities in Monapo District
- 22 MCH Nurses trained and supported to use mParto

"[mParto] provides clear information on how nurses should treat complications.... came to help in the reduction of maternal deaths..."

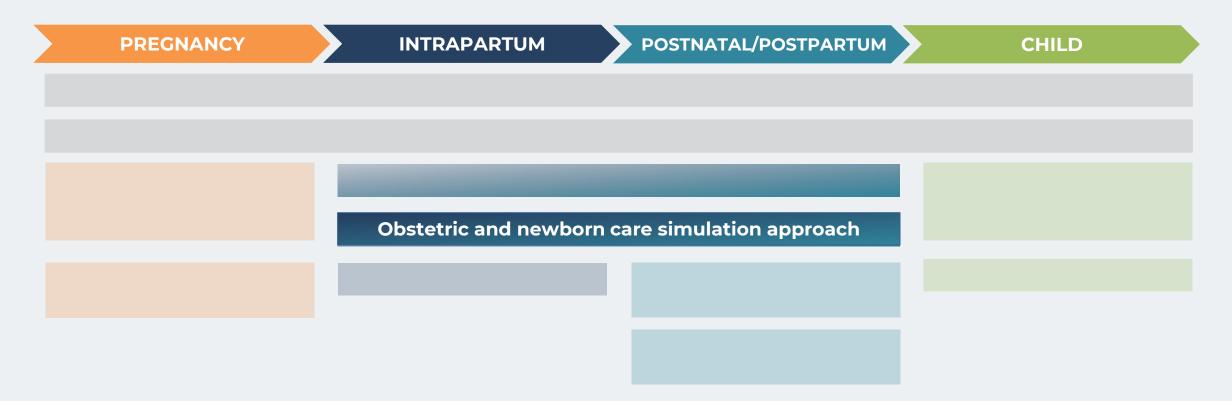
Director of SDSMAS of Monapo

### mParto uptake rate increased





## Strategies to deliver evidence-based high-impact practices



#### INTRAPARTUM/ IMMEDIATE POSTPARTUM

# **Obstetric and newborn care simulation approach**

- Developed by partner PRONTO International
- Practice management of rare events:
  - Birth asphyxia
  - Postpartum hemorrhage
  - Pre-eclampsia
- Live patient actress
- Emphasize teamwork, problem-solving, and respectful care
- Since November 2019: 15 clinical mentors trained as Advanced Simulation Facilitators and implementing simulations across Nampula
  - 20 additional Simulation Mentors will be trained in FY22

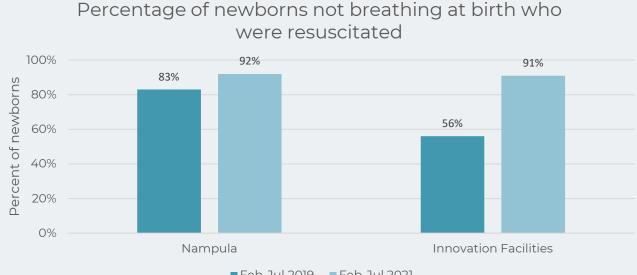


## Health providers reached with simulation training Nampula (23 districts)

SimPack	Description of SimPack™	Number of Providers Reached (as of Sept 2021)
1	Normal birth	516
2	Normal birth with non-vigorous baby	516
3	Abnormal birth with non-vigorous baby	495
4	Normal birth with precipitous hemorrhage	494
5	Normal birth with delay hemorrhage (lacerations)	240
6	Birth Simulations with severe pre-eclampsia	239
7	Normal birth with prematurity	231
8	Normal birth with sepsis	231
9	Normal birth with severe pre-eclampsia and non-vigorous baby	141
10	Normal birth with severe pre-eclampsia and hemorrhage	141

#### INTRAPARTUM/ IMMEDIATE POSTPARTUM

#### Obstetric simulation improves provider confidence and capacity to respond to emergencies



■ Feb-Jul 2019 ■ Feb-Jul 2021

"...[at our health center] we reduced 42% of referrals of obstetric complications with active participation in simulations (postpartum hemorrhages, pre/eclampsia, dystocia, resuscitation of the newborn)." Dr. Materusse, HC of Namitoria, Angoche



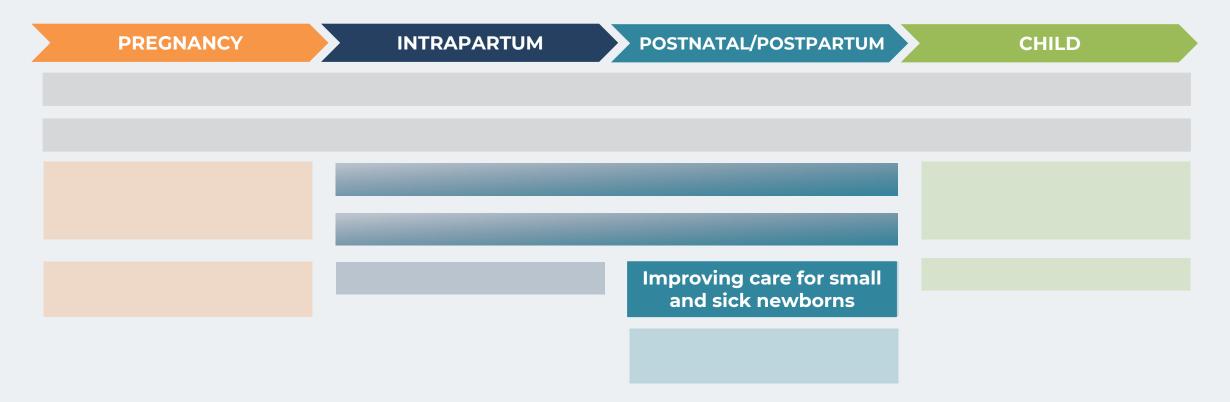
# Institutional deliveries and perinatal mortality

Perinatal mortality rate (stillbirths and pre-discharge newborn deaths per 1,000 institutional deliveries) and total institutional deliveries, per quarter (Nampula, 23 districts)





## Strategies to deliver evidence-based high-impact practices



#### Improving care of small and sick newborns

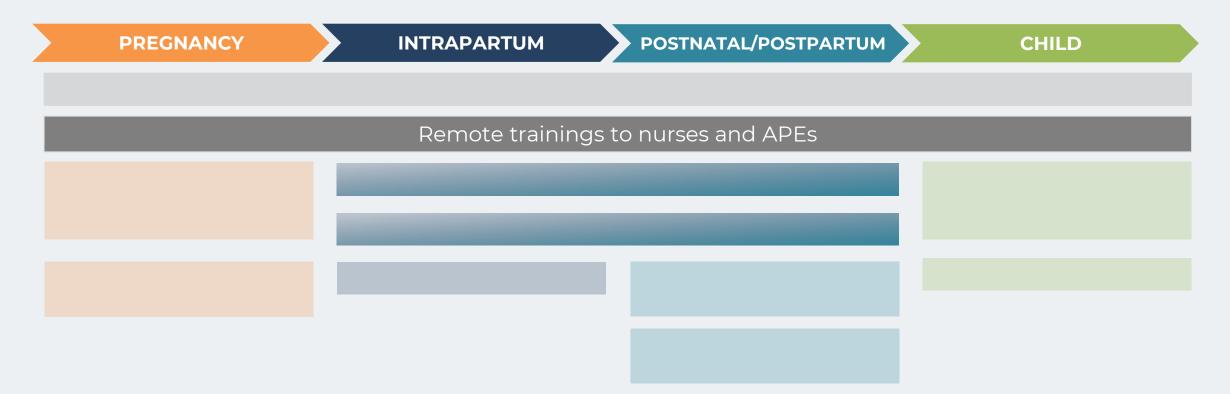


In FY2022, Alcançar will be:

- Assessing capacity of rural, district and general hospitals to provide care for small and sick newborns
- Revitalizing Kangaroo Mother Care (KMC) practices to clinically stabilize low birth weight newborns during 1st week of life
- Integrating training and support for KMC across levels
- Developing multi-level approach to improve coverage and quality of post-natal care, including efforts to demystify care of the newborn
- Improving quality, accuracy, and provider capacity to utilize perinatal mortality data



## Strategies to deliver evidence-based high-impact practices



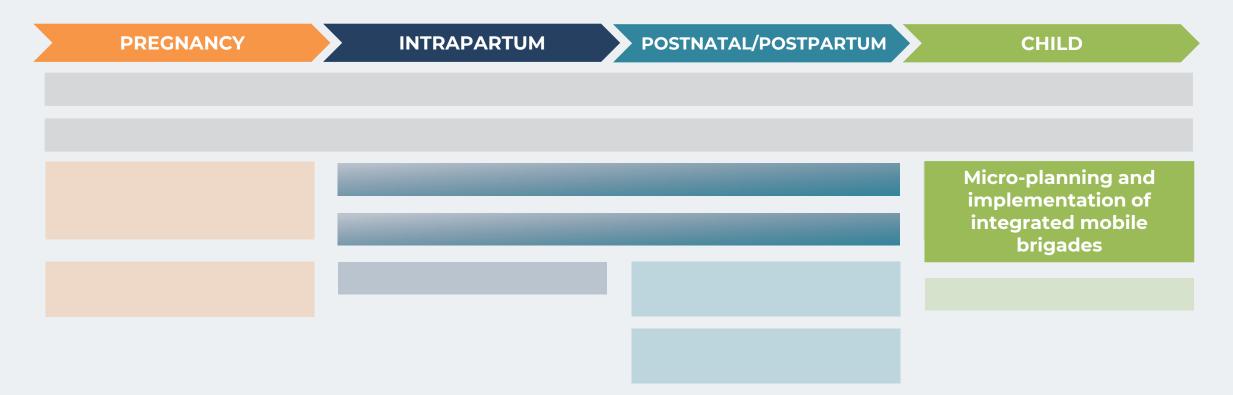
### **Remote trainings to nurses and APEs**

- Developed by partner Viamo
  - Pregnancy and complications
  - Malaria
  - Diarrhea
  - Pneumonia
  - Nutrition
- Launched November 2020 in all districts
- Rounds 1 and 2 reached 191 APEs and 176 nurses
- Rounds 3 and 4 reached 463 APEs and 243 nurses

*"[I] learned how to prevent complications in maternal and child health patients by identifying danger signs." -* Nurse Olga Ussene Raja from Angoche District



## Strategies to deliver evidence-based high-impact practices



# Micro-planning, integrated mobile brigades, commodities and clinical mentorship

- Mobile Brigade micro-planning with districts to enable health facilities to act quickly when vaccines are received
- Ensure adequate commodities by:
  - Monitoring requisitions and repositioning immunization supplies at district and provincial levels
  - Supporting roll-out and maintenance for Sistema de Informação e Gestão de Logística para Unidades Sanitárias (SIGLUS) to improve supply chain management
- On-site clinical mentorship in child health
  - Diagnosis and treatment of child diarrhea, pneumonia and malaria
  - Screening for malnutrition in the outpatient department
  - Danger signs in children under 5, complication management referral protocols
  - Emphasis on neonatal components of integrated management of newborn and childhood illness

"... Our vaccination planning has improved by support from Alcançar, but challenges are we just do not receive [immunization supplies that] we asked for."

Jorge Atumane, HF of Iapala Monapo, Ribáuè district

## **Coverage of diarrhea and pneumonia treatment**

Percentage of children under 5 years of age diagnosed with diarrhea and who received ORS and Zinc, Nampula (23 districts)

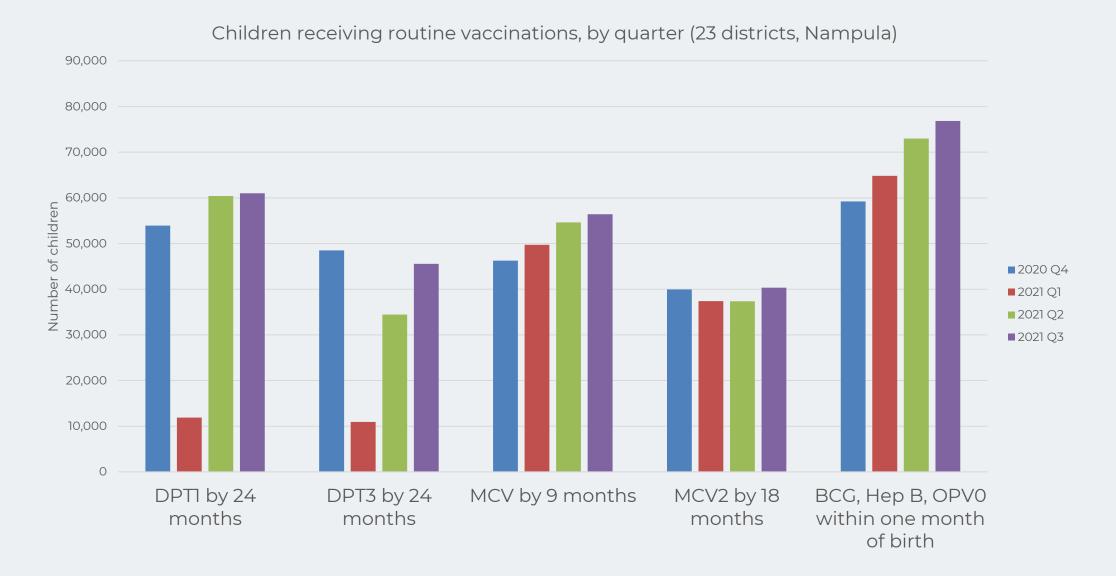


Percentage of children under 5 years of age diagnosed with pneumonia who received amoxicillin, Nampula (23 districts)



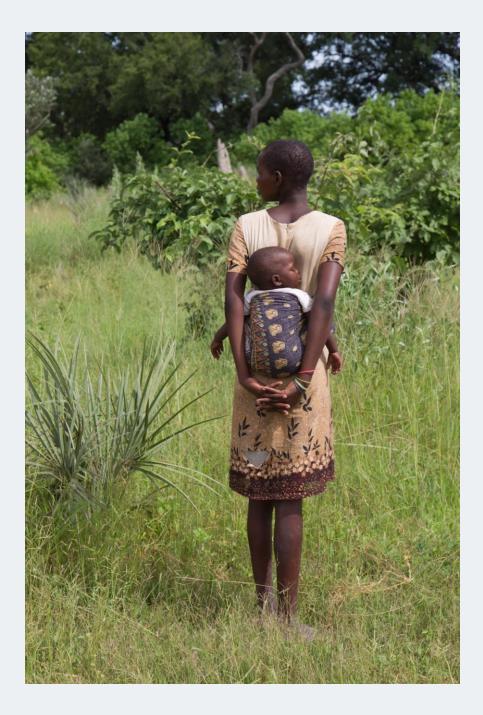
children <5 diagnosed with pneumonia

#### Increasing rates of childhood vaccinations



#### Key takeaways

- Program innovations appear to be improving key health outcomes
- Increased early antenatal care registration
- Quality improvement collaboratives improve adherence to evidence-based care
- Obstetric simulations improve provider capacity and confidence to respond to emergencies
- Coverage of routine child immunizations increasing
- Remote trainings enabled continuous professional development during COVID
- High acceptability and feasibility of mParto use among providers







## Project learning and knowledge management

- Success stories
- Research studies and publications
  - Effects of COVID-19 on MNH service careseeking and quality in Nampula (mixed methods)
  - Stakeholder perspectives on scale-up and sustainability of obstetric simulation (qualitative interviews)
  - Effect of obstetric simulation on provider behavior on prevention of asphyxia and newborn resuscitation (video coding of simulations)
- Webinar series

Quality improvement activities result in more pregnant women initiating antenatal care in the first trimester of pregnancy at Memba Health Center

Alcancar is a consortium comprising eight international and nationa organizations whose goal is to reduce maternal newborn, and child mortality in Nampula Province, Mozambique. The consortium is led by FHI 360 and funded by the U.S. Agency for International Development (USAID) for 5 years (April 2019 - March 2024). Alcançar aims to establish Nampula Province as a model for improving provision and increasing use of high-quality, patientcentered maternal, newborn, and child health services by delivering a package of technical support to all levels of Nampula's health system. The project strategy includes innovative, evidence-based, auality improvement approaches to sustain and enhance health service delivery. Alcançar includes FHI 360 (prime), Dimagi, Ehale, Institute for Healthcare Improvement (IHI), Viamo, Associação de Jovens de Nacala (AJN), HOPEM Network, and PRONTO International



#### PROBLEM OVERVIEW

Antenatal care (ANC) provides a range of health services to women during pregnancy and is an important practice for positive maternal and newborn health outcomes. The World Health Organization (WHO) recommends eight ANC contacts, with the first contact in the first trimester (up to 12 weeks of gestation), two in the second, and five in the third (WHO, 2016). The Mozambique Ministry of Health recommends at least four ANC visits and emphasizes that the first ANC visit occur early (during the first trimester) to ensure optimal health outcomes for women and newborns. In Mozambique in 2019, just 9 percent (138,469) of pregnant women had their first ANC visit during the first trimester, well below the annual target of 20 percent (MOH, 2020). In Nampula Province, 13 percent (38,536) of pregnant women initiated ANC during the first trimester (MOH, 2020); yet, in Memba District, within Nampula Province, just 9 percent (3,832) of pregnant women initiated ANC during the first trimester in the third quarter (July-September) of 2019 (DHIS2, 2019). Memba's lower rate of early ANC initiation relative to the provincial average was a cause for concern among health providers in Memba and the District Health Management Team because it indicated missed opportunities for improved monitoring, prevention, and treatment of health conditions during pregnancy. Additionally, late ANC initiation can make completing the four recommended visits more difficult, potentially negatively affecting pregnancy and birth outcomes for women and newborns

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Alcança Success

### **Upcoming webinars**

Tema/Topic	Mês/Month
<b>Treinamento remoto baseado em dispositivos móveis</b> para aprimorar o conhecimento dos principais serviços de MNCH	Junho/June 2022
Mobile-based Remote training to improve knowledge of key MNCH services	
<b>mParto em Monapo</b> : Usando um aplicativo digital para monitorar mulheres durante o trabalho de parto, parto e encaminhamento	Agosto/August 2022
mParto in Monapo: Using a digital application to monitor women during labor, delivery and referral	
<b>Mobilização Comunitária e Gênero:</b> Mobilização comunitária e GESI como estratégias para a redução da mortalidade materna neonatal e infantil em Nampula	Outubro/October 2022
<b>Community Mobilization and Gender:</b> Community mobilization and GESI as strategies to reduce maternal, newborn and child mortality in Nampula Province	
<b>Simulação obstétrica:</b> resultados da pesquisa de implementação sobre o efeito da simulação para os profissionais de saúde da linha de frente	Janeiro/January 2023
Obstetric simulation: findings from implementation research on effect of simulation for frontline health workers	
<b>Melhoria da Qualidade:</b> Ganhos e aprendizados da colaborativa Alcançar de redução de mortalidade materno infantil	Março/March 2023
<b>Quality improvement:</b> Achievements and lessons learned from the Alcançar collaborative for the reduction of maternal and infant mortality	

# MOH closing remarks



### THANKYOU

