



Nutrition market description - Madagascar



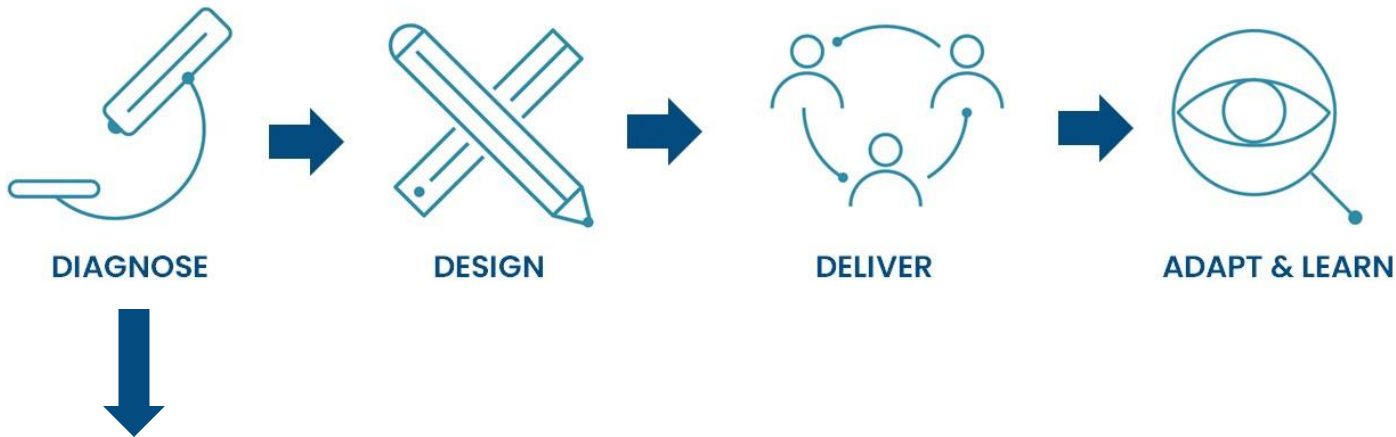
April 2023



Framework for the Description of Nutrition Markets

Market Description Approach

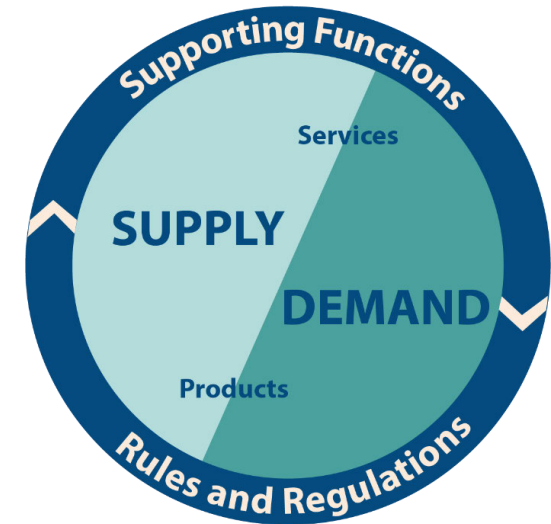
A 4-step process for developing MCH markets



The market description is the first step of the DIAGNOSE phase

- ✓ Aids in identifying problems
- ✓ Selecting the 'right' markets
- ✓ Identify additional data needs for DIAGNOSIS

Guiding framework for market descriptions



The aim is to describe the market structure



Nutrition 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

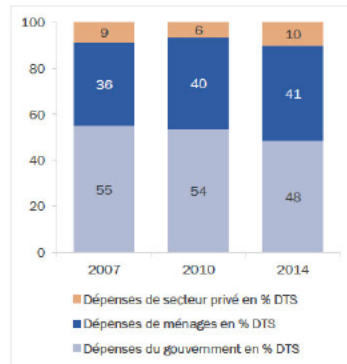
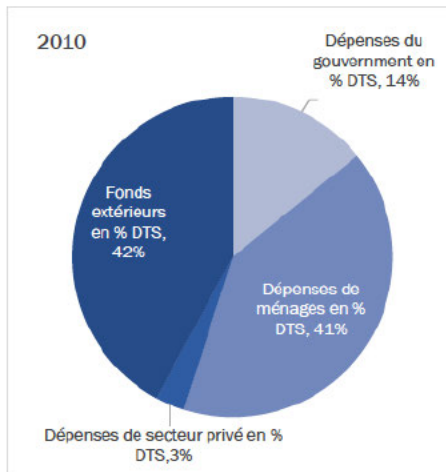
Total population (2018) *	25.7 million
Growth rate (2018) *	3%/year
% urban (2018) *	19.3%
% youth population (<25) / elderly (>65) *	41% youth / 3% elderly
% literacy F (2018) *	76%
M (2018) *	78%
GDP growth (2021) **	4.3%
GDP per capita in current US\$ (2021)**	U\$500
Population at international poverty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

Source: * RGPB 2018 ** World Bank

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

Infrastructure sanitaire

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 Small private practices



219 Private pharmacies
1,672 Rural drug shops (dépôts de médicaments)

Ressources humaines

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 MD (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

The national nutrition office (ONN), the main body in charge of the fight against malnutrition in Madagascar



A key body with a solid strategic plan, the 3rd National Action Plan for Nutrition (PNAN III), which has however expired (**2017-2021**), and which reports directly to the Prime Minister

4 main objectives of the PNAN III

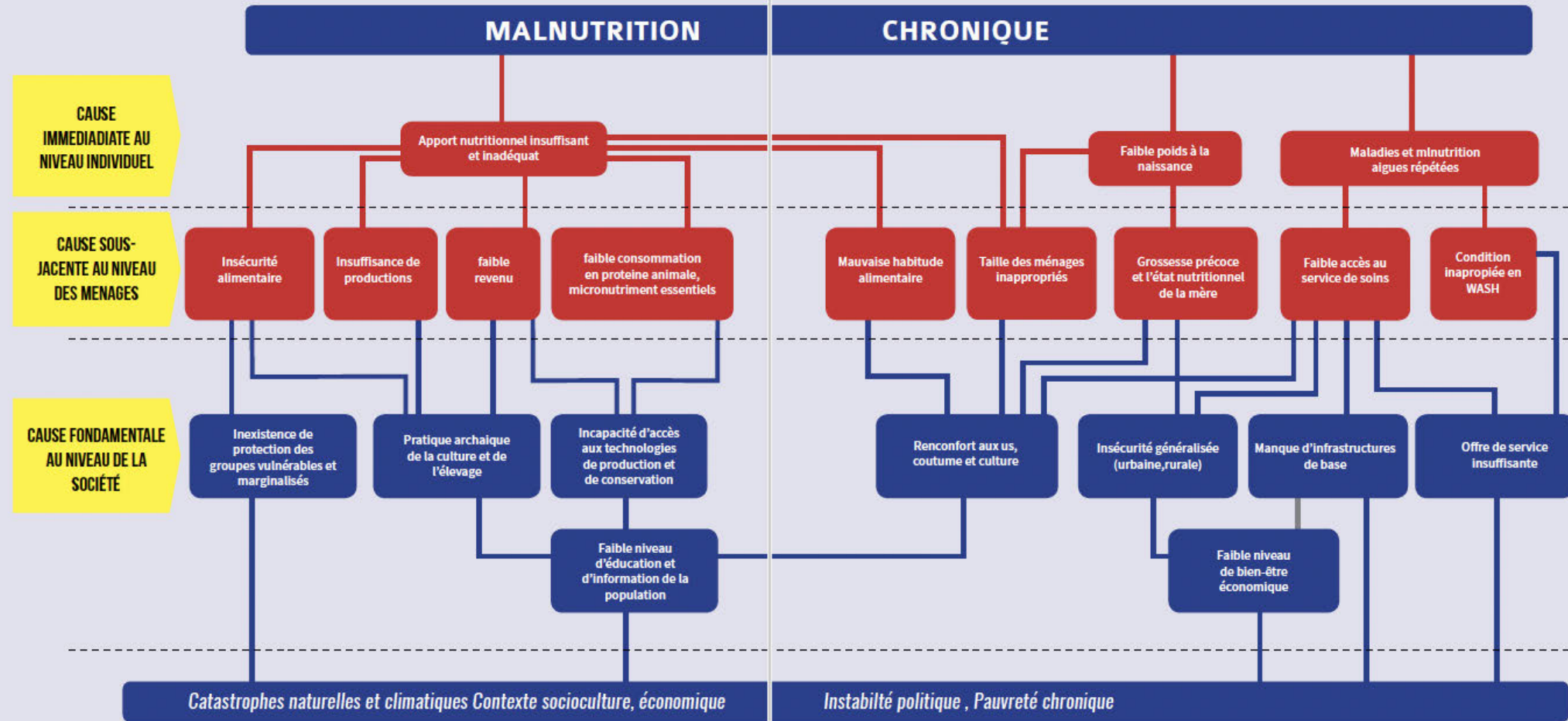
- Reduce the prevalence of chronic malnutrition (stunting) from 47.3% to 38%
- Reduce underweight rate from 32.4% to 25%
- Keep the acute malnutrition (wasting) rate below 5%
- Reduce the percentage of children with low birth weight from 11.4% to 9%

Main bodies for the implementation of the national nutrition policy

- Bureau Permanent du Conseil National de Nutrition (BPCNN): board of directors of the ONN, made up of representatives of the technical ministries and civil society
- ONN as well as the 22 ORNs (Regional Nutrition Offices – one per region): Multisector coordination of nutrition stakeholders and interventions, coordination with the SNUT Nutrition Service of the Ministry of Health, Training of community agents (growth monitoring, nutrition of children and infants)
- ORN implementing partners at District and Commune level: NGOs, local organizations

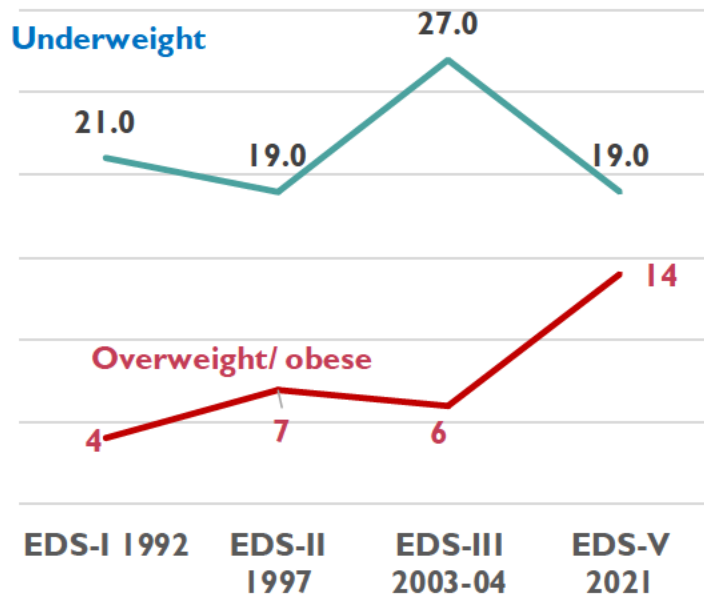
A complex health area with multiple causes

Le schéma ci-après montre qu'à Madagascar, la malnutrition résulte d'interactions entre des facteurs multiples et complexes.

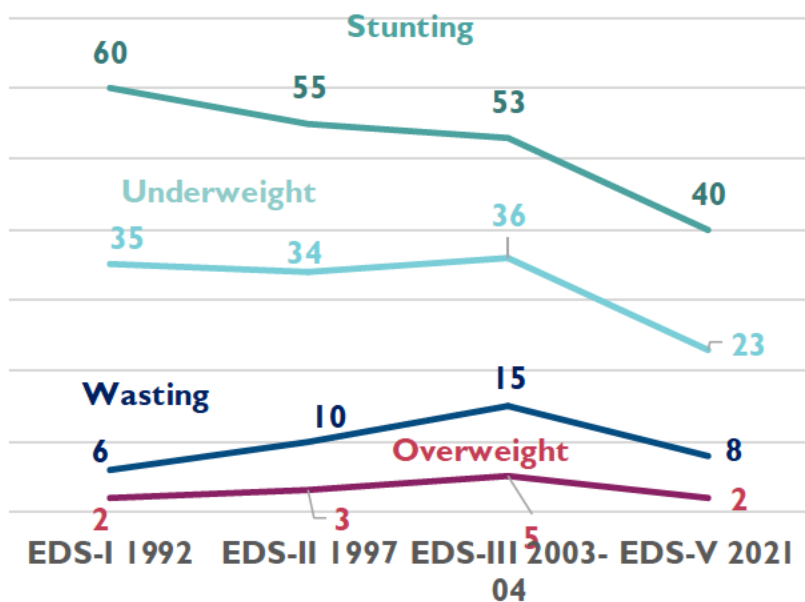


Nutrition trends have improved since the latest DHS, but numbers remain low

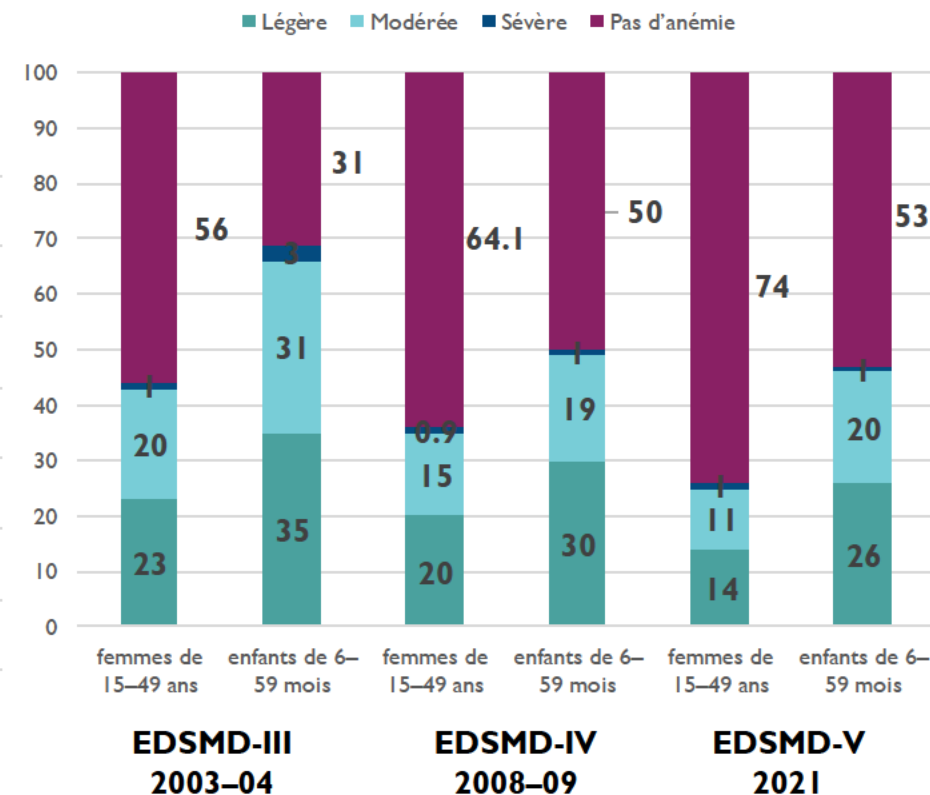
Nutritional trends - women



Nutritional trends - children



Anemia - trends



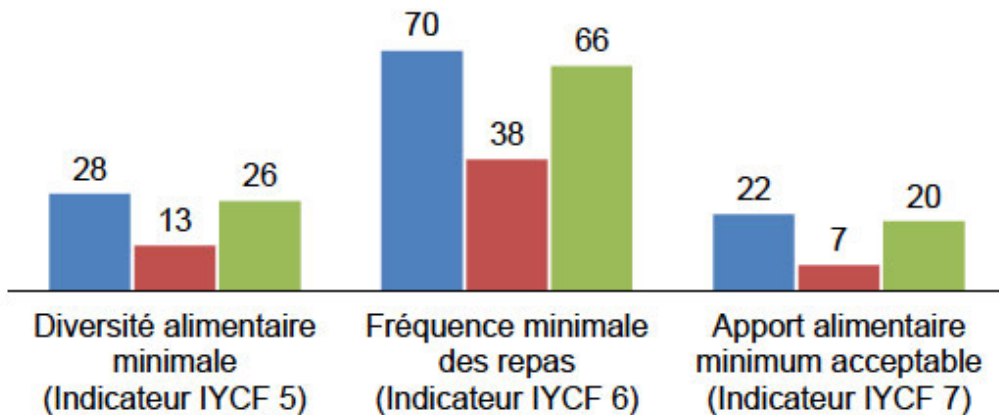
- One national objective of the PNAN III has been achieved: Reduce the underweight rate to 25% (23% as per the 2021 DHS)
- 2 other indicators are on the right track – Stunting (40% vs a target of 38%) and Wasting (8% vs a target of 5%)
- One national target not achieved – Low birth weight (13% vs a target of 9%)

Nutritional quality and quantity continue to be insufficient

Graphique 11.5 Pratiques d'allaitement par âge

Pourcentage d'enfants de 6–23 mois

■ Allaité ■ Non allaité ■ Ensemble 6–23 mois



Source: EDS Madagascar 2021

The 2012-2013 National Millennium Goals Monitoring Survey (ENSOMD) estimated that, for 76% of households, the diet was poor in quantity and for 84%, poor in quality.

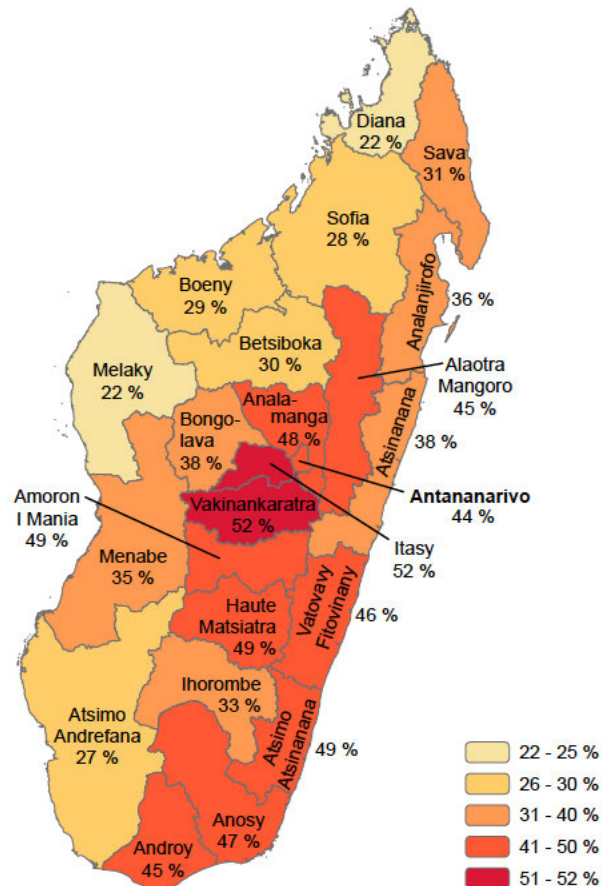
With regard to children aged 6 to 23 months, the DHS shows that the percentage of children aged 6–23 months who received a minimum acceptable dietary intake is lower in rural areas (17%) than in urban areas (37%), and among higher quintiles of economic well-being (48% in the highest quintile vs 9% in the lowest quintile)

Mothers introduce rice too early, before six months, into the diet of children. Children are fed mainly with rice dishes, or other foods that cannot meet the nutritional needs.

Important regional differences

Graphique 11.2 Retard de croissance, par région

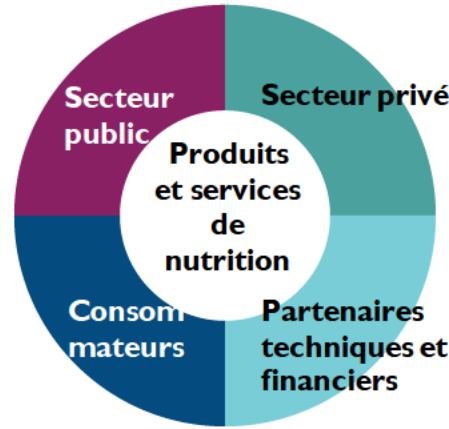
Pourcentage d'enfants de moins de 5 ans qui présentent un retard de croissance



- More than half of the children are stunted in the regions of Vakinankaratra (52%) and Itasy (52%). In these regions, more than a quarter of children are underweight (28% and 27% respectively).
- There are high percentages of children suffering from stunting in the regions of Amoron'i Mania (49%), Haute Matsiatra (49%) and Atsimo Atsinanana (49%)
- In the regions of Atsimo Atsinanana and Boeny, the prevalence of wasting is 12% and it reaches a maximum of 15% in Androy, the region in which the prevalence of underweight is the highest (35%).

An even greater variety of actors than for MCH or FP play a role in nutrition markets

Market players environment for nutrition products and services



Importers, wholesalers and distributors

Service delivery points

Professional Associations

Financing

Pharma private sector: 34 grossistes répartiteurs (dont 7 contrôlent 80% du marché)
Local food producers Koloina (riz), Aviavy (manioc), Socolait (produits laitiers), Bonga (céréales)
Importers: SITRAM, Interfood, Océan Trade
Nutritional supplements and fortified foods: Nutri'Zaza, Nutriset, DSM

For profit private sector
 Not for profit private sector (12 types of health providers in a 2014 circular)
 Pharmacies et dépôts de médicaments

Association des médecins de campagne de Madagascar (AMC-MAD)
 Association Nationale des Sages-Femmes (ANSF)
 Association Nationale des Tradipraticiens Malgaches (ANTM)
 Comité des Entreprises d'Assurance de Madagascar (CEAM)
 Ordres (p. ex., Ordre des Médecins)
 Syndicat des Paramédicaux

USAID
 OMS
 UNICEF
 PAM
 FAO

PSM

SALAMA, UNICEF, Banque Mondiale

Financing

Ministère des Finances

Regulatory authorities

Ministère de l'Agriculture, de l'Élevage et de la Pêche (Madagascar)
 Ministère de la Santé Publique (Madagascar)
 Agence du médicament de Madagascar (AGMED)
 Direction de la Pharmacie, des Laboratoires et de la Médecine Traditionnelle (DPLMT)
 Agence Nationale Hospitalière (ANH)
 + 19 entités du secteur public

Data management

DHIS2
 CHANNEL (gestion des intrants de santé)

Service delivery points

Secteur public: 4 niveaux
 CRENI, CRENAS, CRENAM
 34,000 Agents communautaires

Target population

Femmes
 Nourrissons et enfants de moins de 5 ans

Supply – nutrition products

Nutrition products available in Madagascar (2011)

	Target group	Zones	Distribution Channel	Unit Cost (in Ar)		Source	Source of funding	Availability	Observation
				Purchase/ Production	Sales price				
For the Prevention of Malnutrition									
"Albendazole/ deworming"	Children 6-24 months	National	Routine/BHC	\$0.066 USD/ Pill	\$0.057 - \$0.131	Imported	GOM	Not available in 80 districts	
	Pregnant women	National	Routine/BHC	\$0.066 USD/ Pill	\$0.057 - \$0.131	Imported	GOM		
	Children 6-24 months	WB/PARN	Routine/BHC	\$0.066 USD/ Pill	Free	Imported	WB/PARN		
IFA	Pregnant women	National	Routine/BHC	\$0.260/ 30 tablets	\$0.355/30 tabs	Imported	GOM	Not available in 13 districts	
	Pregnant women	WB/PARN	Routine/BHC	\$0.260/ 30 tablets	Free	Imported	WB/PARN		
Vitamine A	Children 6-59 months	National	Routine/BHC	\$0.091/ Capsule	Free	Imported	GOM	Not available in 16 districts	
	Children 6-59 months	WB/PARN	Routine/BHC	\$0.091/ Capsule	Free	Imported	WB/PARN		
Zaza tomady Micronutrient Powder (MNP)	Children 6-24 months		Pilot		\$0.263/30 sachets	Imported	No donor	Not available for two years	MNP introduced in a few sites with UNICEF support. Lacking funding and due to implementation challenges, this activity has stopped

Nutrition products available in Madagascar (2011)

	Target group	Zones	Distribution Channel	Unit Cost (in Ar)		Source	Source of funding	Availability	Observation
				Purchase/ Production	Sales price				
LNS	Children 6-24 months	"WB/PARN Itasy region"	"Pilot at community sites"	"\$ 6,32/ kg \$0.185/ sachet of 30g"	"\$ 6,32/ kg \$0.185/ sachet of 30g"	Free	Imported	n/a	Only acquisition cost
MMS	Pregnant women	Soavinandriana (Itasy), Ifanadiana (V7V) districts onl only	"Pilot at community sites"			Free	Imported	n/a	
Supercereal	Pregnant women	"Grand South (8 districts principally)"	Communities			Free	Imported	Available for the emergency	
"Koba Aina (local fortified porridge)"	Children 6-24 months	"Urban areas: Antsirabe, Toamasina, Fianarantsoa, Mahajanga and Antananarivo"	Commercial sites, demonstrations and sales by local animators and sales agents (hired by local NGOs or associations), NGOs	Sachet of 35 g	Sachet of 35 g	\$0.132	Local	In stock	
For the Management of Malnutrition									
Plumpysup	Children 6-59 months	WB/PARN	Community sites	"\$4,1/kg \$0.399 per sachet of 100g"		Free	Imported	WB/PARN	Only acquisition cost
	Children 6-59 months	"Grand South	Community sites			Free	Imported	WFP	
Plumpysup	Children 6-59 months	Regions UNICEF (Grand South, Analanjirofo, Menabe, Antananarivo city)	CRENI, CRENAS			Free	Imported	UNICEF	Not available in 52 districts
	Children 6-59 months	WB/PARN	CRENAS	"\$0.588 per sachet \$88.16 per treatment"		Free	Imported	WB/PARN	

Source: Reerink Ietje, 2011, Nutrition situation analysis commissioned by USAID Madagascar

Nutrition service delivery – public sector

- In the public sector, the management of acute malnutrition goes through a specific system with the following entities
 - 95 Baby Friendly Health Structures (75 hospitals and CSB, and 20 unspecified).
 - 60 intensive care centers for acute malnutrition (Centre for Recovery and Intensive Nutritional Education, CRENI)
 - 851 care centers for uncomplicated malnutrition (Outpatient Recovery and Nutritional Education Center for Severe Acute Malnutrition Without Complications, CRENAS)
 - 339 treatment centers for moderate acute malnutrition (Outpatient Recovery and Nutritional Education Center for Moderate Acute Malnutrition, CRENAM)
 - Mobile teams operational in the South (led by ACF or other partners such as MDM) which contribute to increasing the coverage of the management of moderate and severe acute malnutrition
- The World Bank is implementing a major program to fight against nutrition, PARN: Nutritional Results Improvement Project (2018-2028). Its APPM (Multi-Phase Program Approach) component has substantial funding of \$200 million.

Nutrition product and service delivery – private sector



- The private sector is not very visible in the various documents and strategic plans, even if it is mentioned. The **Sun business network** (ANJARAMASOANDRO) is a new organization that brings together companies wishing to act on nutrition through their corporate social responsibility (CSR) programs and companies that manufacture fortified products or nutritional products. Network members want the private sector in Madagascar to play its part in the fight against nutrition. Their activities include the distribution of more nutritious meals in the canteens of employers or schools, or the provision of nutritional support to communities around the factories or production sites of member organizations of the network.
- **Nutri'zaza**, a social enterprise founded by GRET, Nutri'zaza markets a quality food supplement called Koba Aina. This infant flour is produced from Malagasy raw materials by a local partner agri-food company: Taf. It complies with international quality standards from both a nutritional and health point of view. Nutri'zaza markets Koba Aina through three channels
 - a network of restaurants for babies, called hotelin-jazakely, deployed in underprivileged neighborhoods in the main cities of Madagascar as well as in the main markets
 - the traditional food distribution system
 - projects led by NGOs or organizations working in the field of nutrition





Demand for nutrition in Madagascar

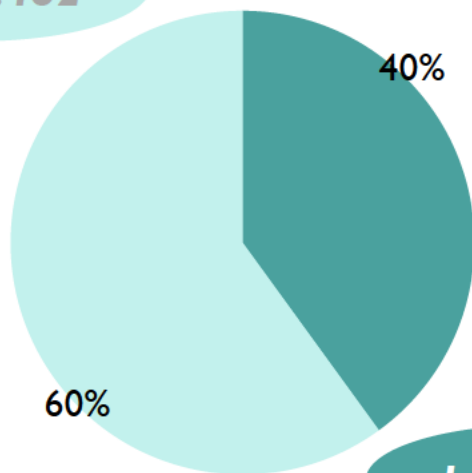
Place of residence and wealth quintile play little role in stunting (chronic malnutrition)

Proportion of children under 5(%)

Children under % with stunting (Total)

■ Stunted ■ Not stunted

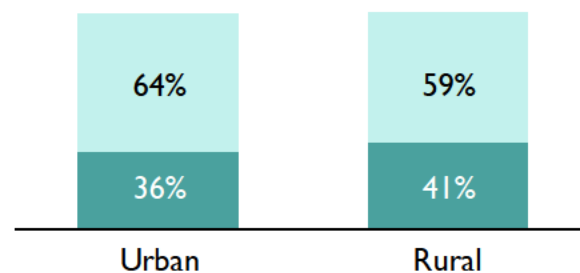
2.223.482



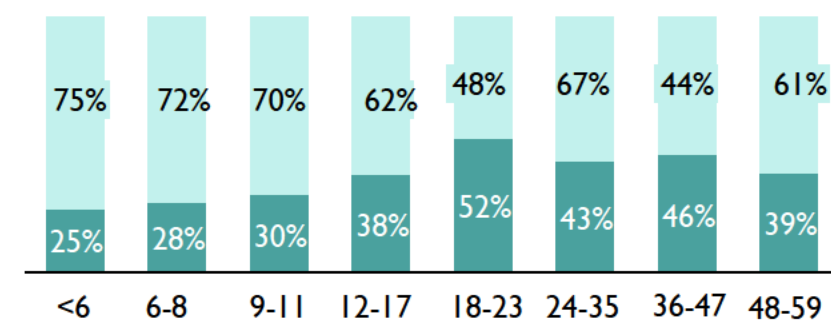
1.482.321

● Estimated # of children

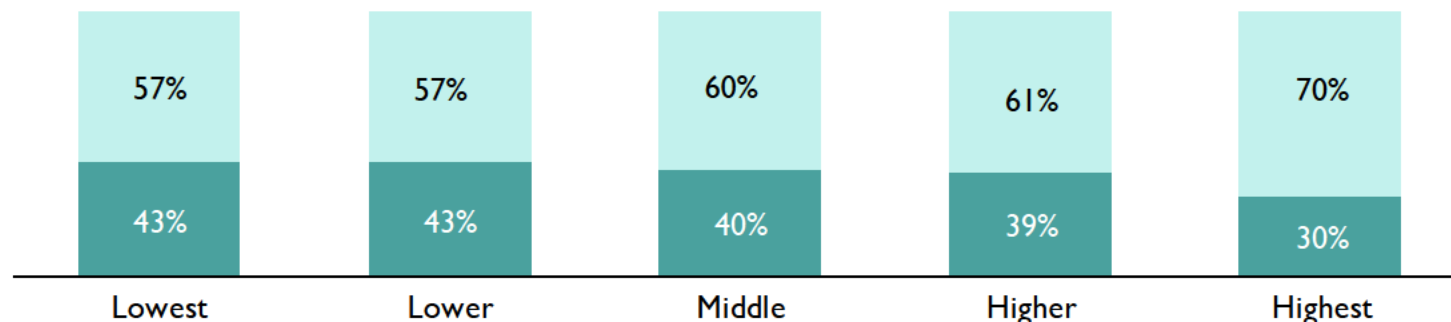
Stunting by location(%)



Stunting by age in months (%)



Stunting by wealth quintiles(%)



From 18 months, stunting is more prevalent in children, with a peak between 18 and 23 months

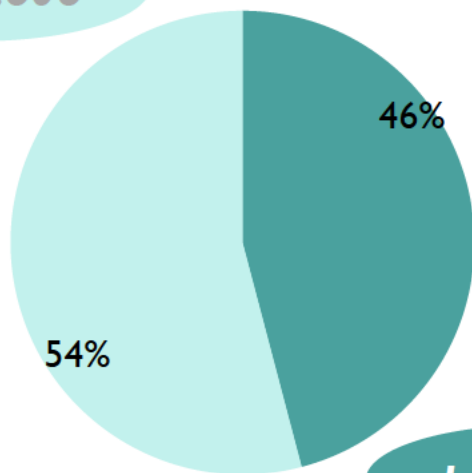
As with stunting, place of residence and quintile of economic well-being have little influence on children anemia

Proportion of children under 5(%)

6–59 months children considered as being anemic (Total)

Anemic Not anemic

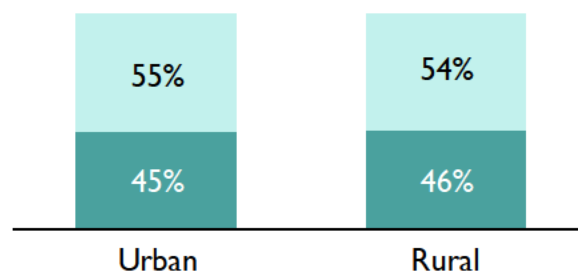
1.777.606



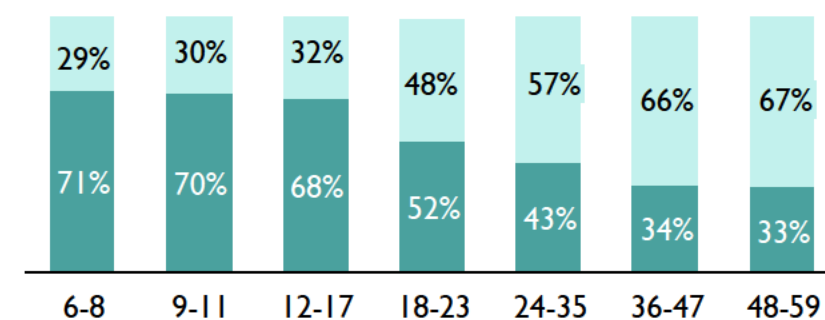
1.514.257

Estimated # of children

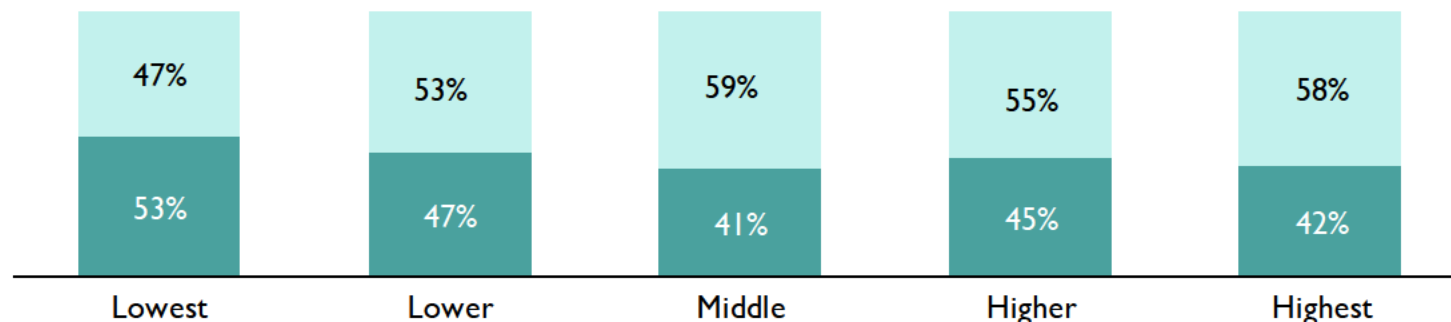
Anemia by place of residence (%)



Anemia by age in months(%)



Anemia by wealth quintile (%)



Anemia is more prevalent among younger age groups and diminishes as children grow older

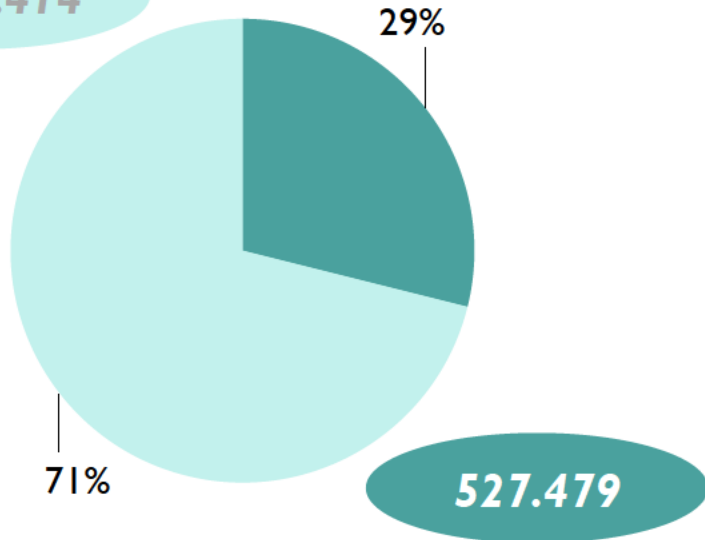
Only 29% of children under 5 received follow-up for stunting

Proportion of children under 5(%)

Children aged 6–35 months who have received follow-up for stunting (Total)

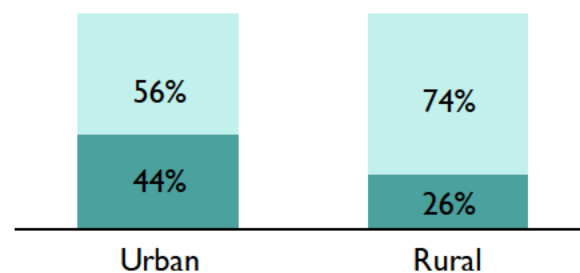
Follow-up No follow-up

1.291.414

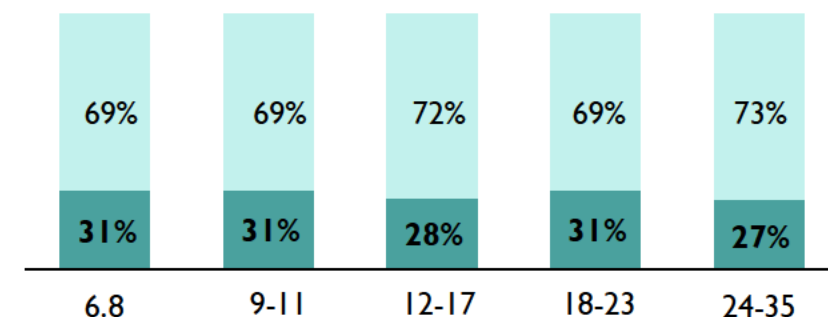


Estimated # of children

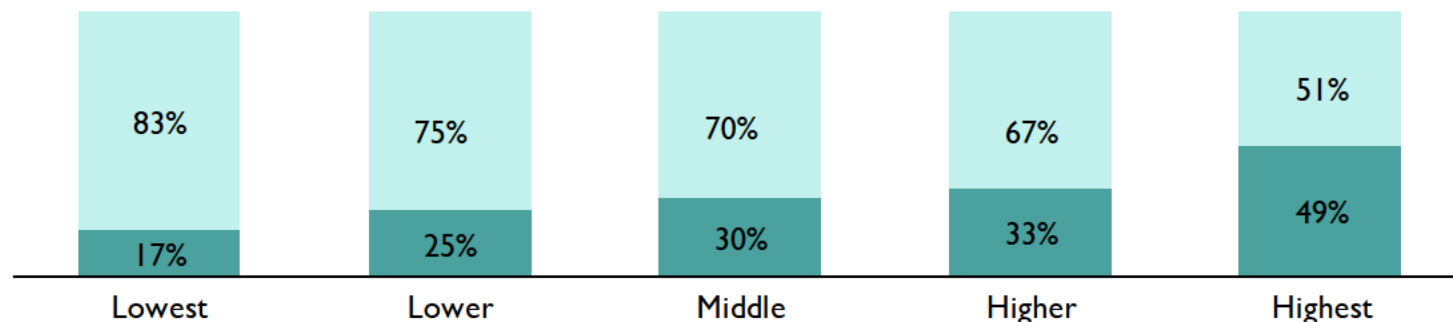
by place of residence(%)



by age group in months (%)



by wealth quintile(%)



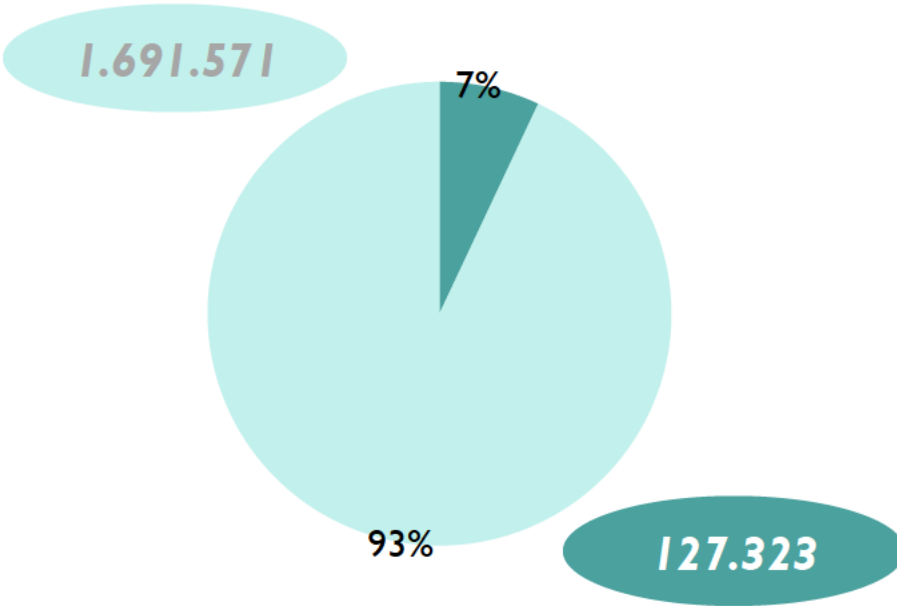
Follow-up is mostly among children living in urban areas and in the highest wealth quintile

The intake of fortified foods or food supplements in children is marginal (7%) and is mostly in urban areas and the highest wealth quintiles

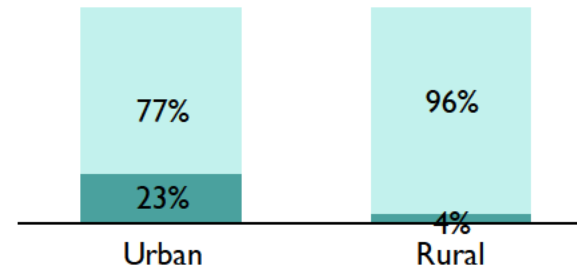
Proportion of children under 5(%)

Children aged 6–35 mois who have received PLUMPY' DOZ, KOBA AINA, KOBA in the last 7 days

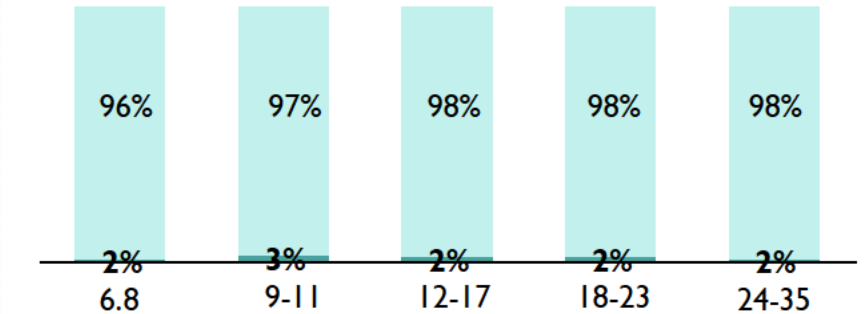
Have received (dark teal) Haven't received (light teal)



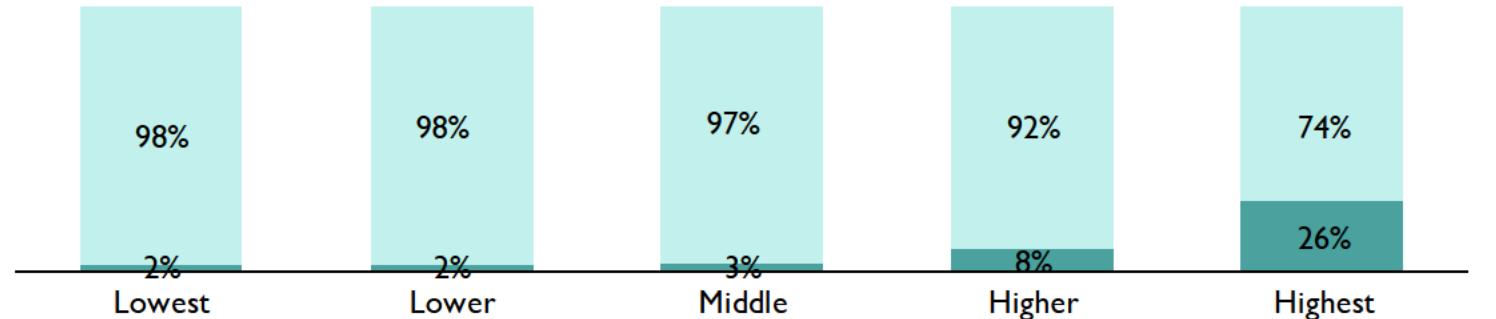
by place of residence(%)



by age group in months (%)



by wealth quintile(%)



The age of the child does not affect the intake of fortified foods or food supplements

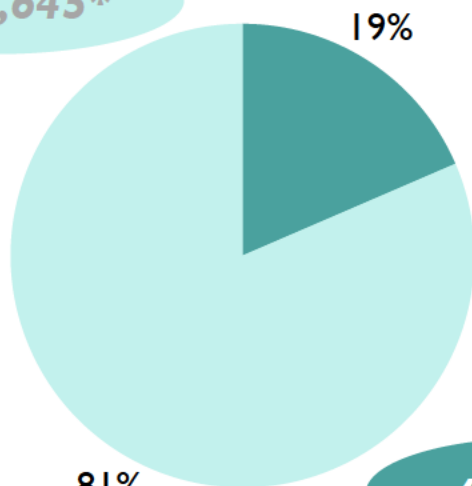
Nearly 20% of women are underweight

Proportion of women aged 15 à 49 (%)

Parmi les femmes de 15–49 ans qui sont maigres (Total)

■ maigre ■ non maigre

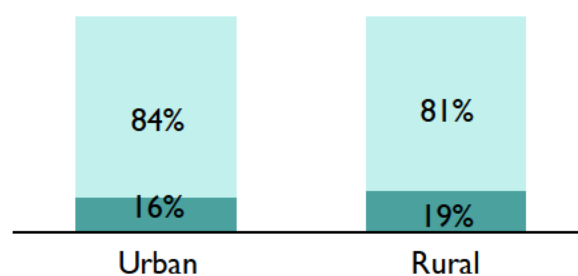
2,730,645*



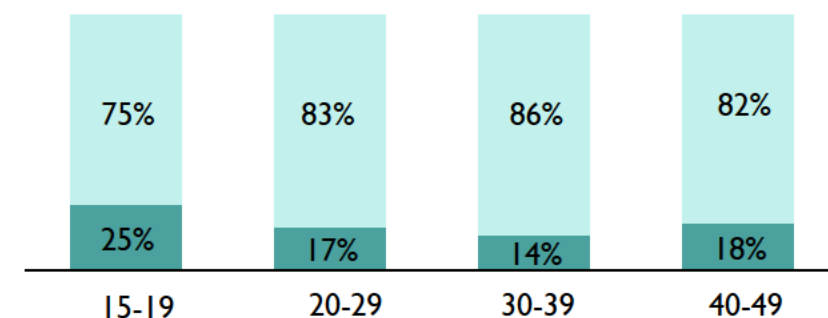
644,689

Estimated # of women

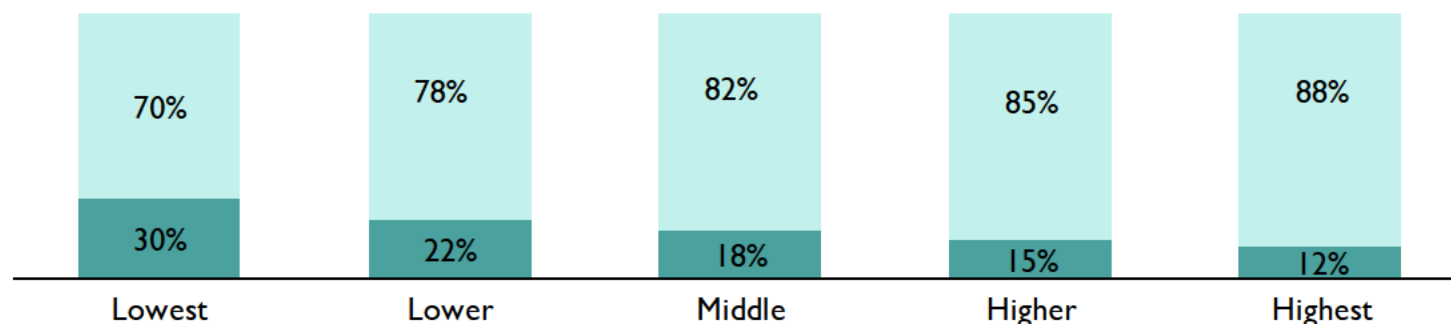
Maigre by place of residence (%)



Maigre par groupe d'âge (%)



Maigre by wealth quintile (%)



The youngest women and the lowest wealth quintiles are the most affected

Amenia affects 1 in 4 women

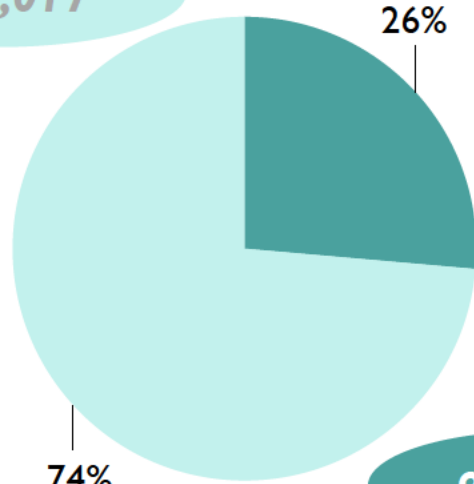
Proportion of women aged 15 - 49 (%)

Estimated # of women

Women aged 15–49 who are anemic (Total)

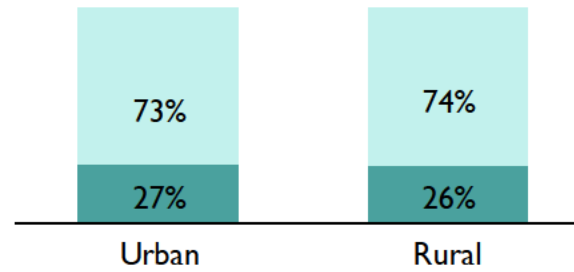
Anemic Not anemic

2,666,017*

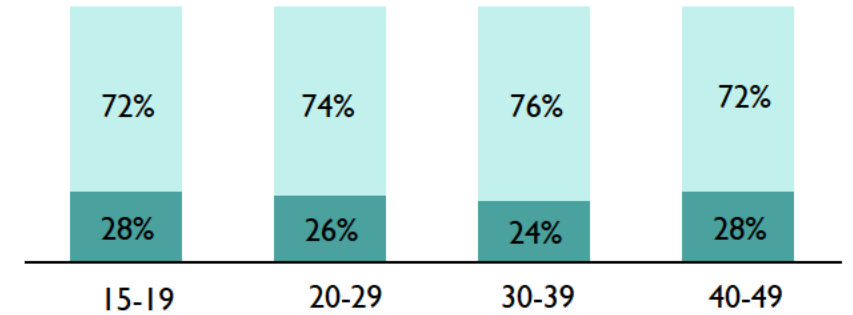


936,708

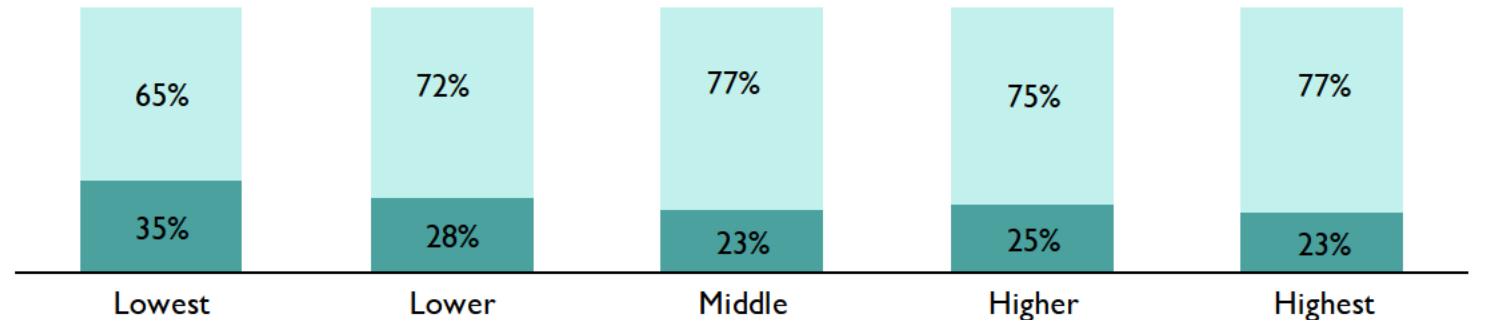
by place of residence(%)



by age group (%)



by wealth quintile(%)



Place of residence, age and quintile of economic well-being have little influence on the prevalence of anemia

Conclusions - Demand

- There are nearly **1.5 million children** under the age of 5 with stunted growth (chronic malnutrition) and **about the same number of anaemic children**. Place of residence and quintile of economic well-being matter little.
- Only 29% of children under 5 received follow-up for stunting, especially in urban settings and in the highest wealth quintile, leaving nearly **1.3 million stunted children without any specific monitoring**
- Nearly **645,000 women are underweight**, and nearly **a million are anemic**
- A very small proportion of children in urban areas and in the highest wealth quintile take fortified foods or nutritional supplements



Overview of
constraints
affecting
nutrition
markets

Worksheet : Analyze market system performance for nutrition in Madagascar

A=Absent I =Insufficient M=Mismatch

Market functions		A	I	M	Observations	
Core Market	Supply			X	<ul style="list-style-type: none"> An area that remains the prerogative of the public sector, with a whole special structure for the management of malnutrition The private sector remains confined to the supply of food and food supplements 	
	Demand		X		<ul style="list-style-type: none"> Too early introduction of rice in children's diets, low dietary diversity 	
Supporting Functions	Financing	S & D				
		Subsidies		X		<ul style="list-style-type: none"> The vast majority of funding goes to the public sector, the private sector is left out
		Business				
	Info	Supply				
		Demand				
	Skills, Capacity		X		<ul style="list-style-type: none"> Health providers do not know the nutrition product offer and do not know how to advise their patients in this area 	
	Stewardship	X			<ul style="list-style-type: none"> Fighting malnutrition is not seen as a market 	
Rules & Regs	Regulations					
	Tariffs, Taxes					
	Standards	X			<ul style="list-style-type: none"> Nutrition standards exist but cannot be applied due to the lack of testing equipment in Madagascar 	
	Norms	Supply		X		<ul style="list-style-type: none"> Some local market players take advantage of the lack of testing capacity in Madagascar to sell products that are not fortified but claim to be
		Demand	X			<ul style="list-style-type: none"> No transparency or reliable certification on the nutritional quality of products - No sign to help consumers see clearly