

**Table S1. Pivot support by HSS component and districts over time**

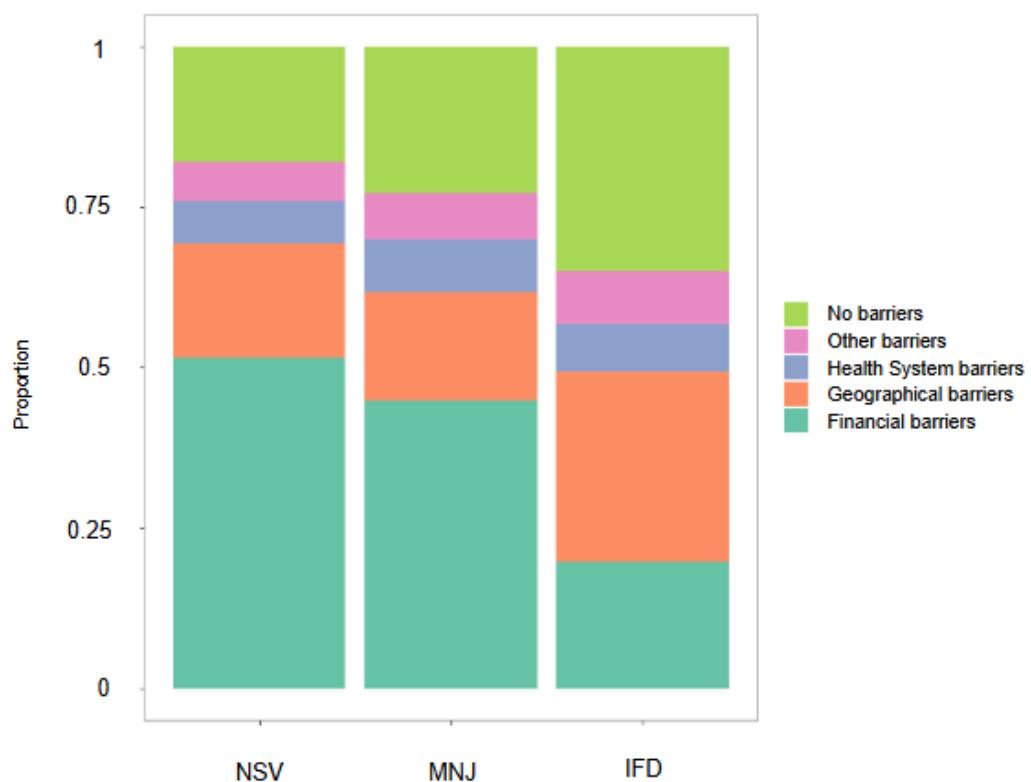
HSS component	District	Baseline (2023)	Completion of regional expansion
User fee removal	Ifanadiana	All district residents	Population to be determined in consultation with MoPH
	Nosy Varika	None	Pregnant women and children under-five
	Mananjary	None	Pregnant women and children under-five
Community health program	Ifanadiana	CHWs professionalized and provide community-based care	CHWs professionalized and provide community-based care
	Nosy Varika	Ad hoc program supported by multiple partners	CHWs professionalized and provide community-based care
	Mananjary	Ad hoc program supported by multiple partners	CHWs professionalized and provide community-based care
Primary care health centers	Ifanadiana	21 health centers strengthened with infrastructure improvement, supply chain support, clinical staff recruited and trained	21 health centers strengthened with infrastructure improvement, supply chain support, clinical staff recruited and trained
	Nosy Varika	None	26 health centers strengthened with infrastructure improvement, supply chain support, clinical staff recruited and trained
	Mananjary	None	41 health centers strengthened with infrastructure improvement, supply chain support, clinical staff recruited and trained
District and regional referral hospital	Ifanadiana	Hospital strengthened with infrastructure improvement, supply chain support, clinical staff recruited and trained	Hospital strengthened with infrastructure improvement, supply chain support, clinical staff recruited and trained
	Nosy Varika	None	Hospital strengthened with infrastructure improvement, supply chain support, clinical staff recruited and trained

	Mananjary	None	Hospital strengthened with infrastructure improvement, supply chain support, clinical staff recruited and trained
Referral and patient transport	Ifanadiana	Ambulance, referral transport costs paid	Ambulance, referral transport costs paid
	Nosy Varika	None	Ambulance, boat for emergency referral, referral transport costs paid
	Manajary	None	Ambulance, referral transport costs paid

**Table S2: List of indicators**

Indicators	Description
Neonatal mortality	Number of children who died before the first month per 1000 live births
Infant mortality	Number of children who died before their first birthday per 1000 live births
Under5 mortality	Number of children who died before 5th birthday per 1000 live births
Maternal mortality	Women ages 15–49 who died within 12 months of the end of a pregnancy per women with a reported pregnancy
Stunting prevalence	Number of children under age 5 who are < -2 SD of median height-for-age of World Health Organization (WHO) standard
Wasting prevalence	Number of children under age 5 who are < -2 SD of median weight-for-height of World Health Organization (WHO) standard
Met need on Family Planning	Number of women ages 15-49 using a family planning method among those wishing to limit or stop births
Antenatal care coverage	Number of women 15–49 with a live birth in last 2 years who were attended at least 1 time by a skilled provider for antenatal care for the last birth
Skilled attendant at delivery	Number of women 15–49 with a live birth in last 2 years who were attended by a skilled provider during the last birth
Illness incidence	Number of children under age 5 with at least one of the three illnesses: diarrheal illness, fever or Acute Respiratory Infection
Care seeking for illness	Number of children under age 5 with illness in last 2 weeks for whom advice or treatment was sought from a health facility or provider
Wealth quintile	Value of household wealth index closest to but less than 20%, 40%, 60% and 80% of the cumulative distribution

**Fig. S1: Barriers to healthcare access reported by individuals with an illness in the month preceding the survey and did not seek care, Vatovavy Region, Madagascar, 2023**



**Table S3: Inequalities in healthcare coverage by wealth and geographic access in Vatovavy Region, Madagascar, 2023.**

Healthcare coverage indicators	District	Economic inequalities			Geographic inequalities		
		Poorest	Wealthier	p_value	Farthest	Nearest	p_value
ANC4 (4+ visit with skilled provider)	Nosy Varika	23.4	33.2	0.022	18,6	37,5	<0.001
	Mananjary	49.8	57.5	0.232	51,1	56,8	0,383
	Ifanadiana	42.1	57.3	0.052	36,6	68,7	<0.001
Birth delivered at health care facility	Nosy Varika	2.6	10.5	<0.001	3,3	10,1	0,006
	Mananjary	21.8	31.9	0.087	26,4	28,6	0,772
	Ifanadiana	17.7	38	0.002	14,8	48,3	<0.001
Postnatal care with skilled provider	Nosy Varika	4.8	15.1	0.001	7,3	13,4	0,074
	Mananjary	23.8	37	0.010	30,6	32,1	0,842
	Ifanadiana	17.6	36.9	0.003	14,5	46,7	<0.001
All vaccinations for children under 5	Nosy Varika	11.4	8.9	0.533	5,9	13,7	0,046
	Mananjary	30	35.2	0.501	22,7	41,6	0,066
	Ifanadiana	25.4	43.6	0.015	23,1	54,7	<0.001
At least one vaccine dose for children U5	Nosy Varika	37.4	53.2	0.015	29,1	62	<0.001
	Mananjary	70.6	80.4	0.071	70,9	81,4	0,161
	Ifanadiana	64.6	80.1	0.006	64,9	86,4	0,007
Illness care seeking for children under 5	Nosy Varika	13.4	33.5	<0.001	17,1	36,7	0,003
	Mananjary	33.6	29.7	0.520	35	29,5	0,49
	Ifanadiana	40.2	56.2	0.006	33,2	65,5	<0.001
Illness care seeking for adolescent	Nosy Varika	15	17.7	0.869	12,3	21,7	0,024
	Mananjary	26.1	28.5	0.637	19	33,4	0,005
	Ifanadiana	36.3	35.2	0.869	28,8	43,6	0,024
Illness care seeking for adult	Nosy Varika	35.2	40.1	0.04	23,6	50,2	0,031
	Mananjary	21.1	26.7	0.106	22,8	25,8	0,419
	Ifanadiana	35.2	40.1	0.282	16,4	21,8	<0.001

