Modeling the cost of scaling up MNCH services in country settings: the Cambodia experience

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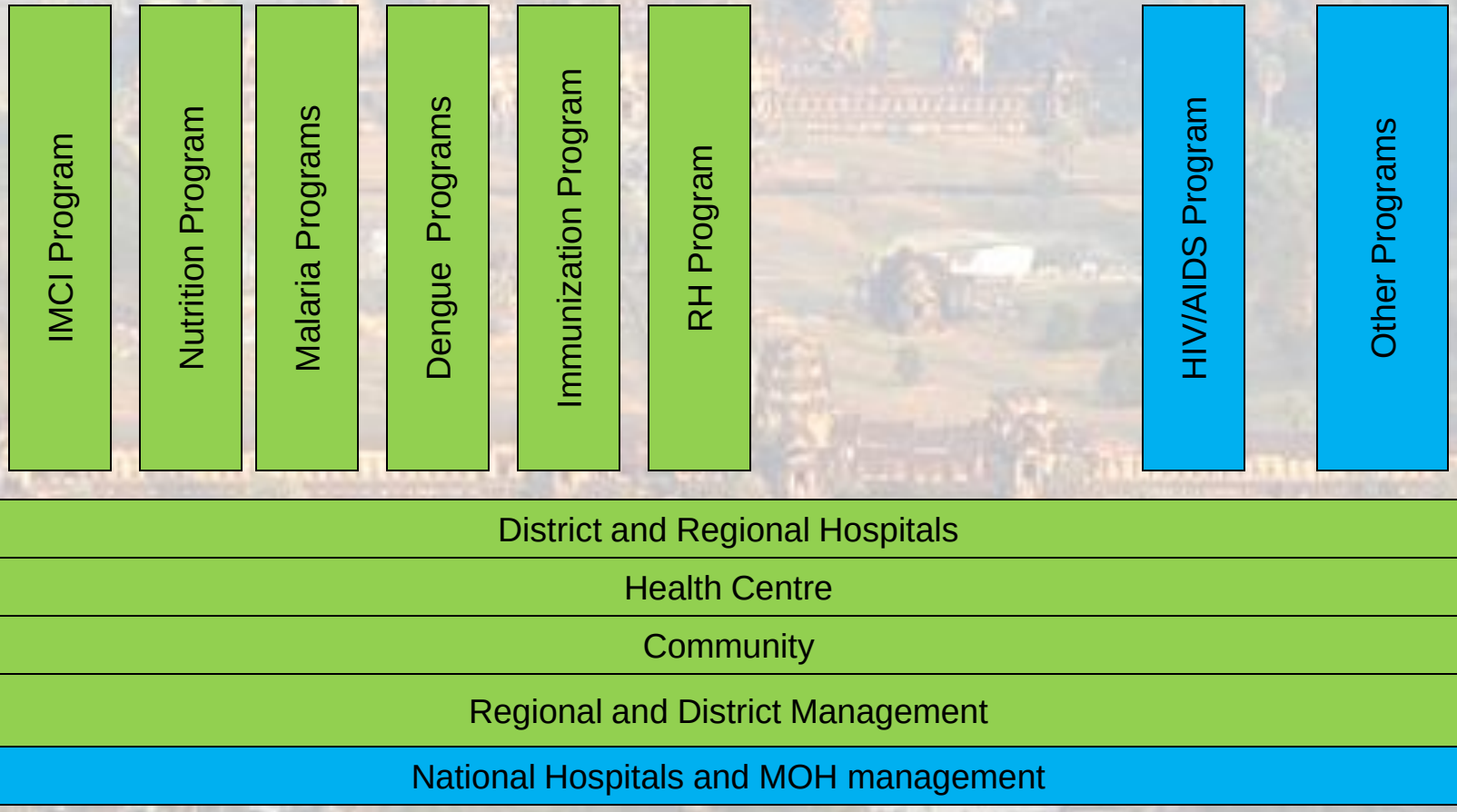
Costing MNCH Programs and Interventions - change

- MNCH services are generally provided as part of integrated service packages (eg in health centres)
- Good quality MNCH services can not be provided unless the whole health centre package of services is well resourced
- To cost the scaling up of MNCH services you have to cost the whole package of services

Cambodia MOH Budget structure



Health Centre Costing – main elements

- The cost of a service package depends on the utilization rate for each service, which we model using incidence and prevalence rates
- To ensure there are enough resources for good quality care we use standard treatment protocols to determine the “ideal” cost for each service and for the facility as a whole
- We use a simple Excel-based tool (CORE Plus) which is available on line free of charge

CORE Plus – Modeling of needed utilization with example of 2 types of service

	Type of service	Antenatal services	VCCT	
	Relevant population	3,000 women of reproductive age	10,000 total population	
X	**Incidence / Prevalence**	10% get pregnant in year	1.1% infected per year	
X	**Market segment**	90% use public sector	100% use public sector	
X	**Number of services per case**	4 visits per pregnancy	1 visit per suspected case	
=	**Total number of services**	1,080 services	110 services	**Total of 1,190 services**

CORE Plus – Model summary

	Type of service	Antenatal	PMTCT	Total
	Number of services	1,080 services	110 services	1,190 services
X	Variable unit cost for drugs	$3	$60	
=	Total variable cost for drugs	$3,240	$6,600	$9,840
+	Fixed cost - staff	$1,600	$400	$2,000
+	Fixed operating costs	$800	$200	$1,000
=	Total costs	$5,640	$7,200	$12,840
	Total unit costs	$5.22	$65.45	$10.79

One health centre pop 10,607 (costs in US$)

	Actual services / actual cost	Actual services / ideal cost	100% coverage RMNCH only / ideal cost	100% coverage / ideal cost
# services per capita	1.43	1.43	2.15	2.35
RMNCH	$ 15,179	$ 14,630	$ 22,555	$ 22,119
Communicable diseases	$ 6,111	$ 4,981	$ 6,729	$ 10,967
Non-comm diseases	$ 3,938	$ 2,841	$ 1,826	$ 2,971
Total cost	**$ 25,227**	**$ 22,452**	**$ 31,110**	**$ 36,057**
Average cost per capita	$ 2.38	$ 2.12	$ 2.93	$ 3.40
Average cost per service	$ 1.66	$ 1.48	$ 1.36	$ 1.45
Cost per antenatal visit	$ 1.60	$ 1.87	$ 1.74	$ 1.71
Number of providers	5	6	9	10
Services per provider/day	19	16	16	16

Task shifting cost savings

- Excluding drug costs, which would be the same wherever the service is provided, the model showed that a contact for treatment of a child with upper ARI would only cost $0.31 in the community versus $1.11 in the health centre
- And if the health centre shifted appropriate services to the community volunteers it could manage with one less staff even after assigning one staff full time to supervising the volunteers.