THE LANCET Global Health

Supplementary appendix

This appendix formed part of the original submission and has been peer reviewed. We post it as supplied by the authors.

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Achieving maternal and child health gains in Afghanistan: a case study in resilience

Web Appendix

Detailed Methods, Additional Analyses, Web Tables, Web Figures

Detailed Methodology: Web Methods 1. Data Sources

To measure outcome and interventions coverage, we obtained and analyzed original data from the following national surveys conducted during the last decade in Afghanistan: Multiple Indicator Cluster Survey (MICS) 2003/04 [1] and 2010/11 [2], National Risk and Vulnerability Assessment (NRVA) 2005 [3], 2007/08 [4], and 2011/12 [5], Afghanistan Health Survey (AHS) 2006 [6] and 2012 [7], Afghanistan Mortality Survey (AMS) 2010 [8], Expanded Program on Immunization Census (EPIC) 2013 [9], and the National Nutritional Survey 2004 [10] and 2013 [11] (Box 1). With the exception of the AHS 2006, which was largely focused on rural Afghanistan only, these surveys were powered to provide nationally representative estimates for a range of health indicators and mortality. Indicators included direct and indirect estimates of child mortality, comprehensive information on demography, household assets and conditions, nutritional status of women and children, coverage of health-care services such as immunization, and maternal and child health.

We undertook a systematic in-depth review of all available electronic published and unpublished reports pertaining to the situation analysis of RMNCH in Afghanistan since 2001. Search engines included PubMed, Medline, Scopus, and Google Scholar for the 1980-2014 period. We used broad search terms including: “Afghan*” AND “reproductive” or “sexual” or “maternal” or “mother*” or “child*” or “under-5” or “newborn*” or “neonate*” or “post-neonate*” AND “health” or “risk” or “survival” or “mortality” or “nutrition” or “health system*” or “health finance*” or “health inequit*” or “health inequality*”. We also explored government websites (MoPH, Central Statistics Office, etc), UN websites (e.g. WHO, World Bank, UNICEF, UNFPA), and a Google search for relevant policies, program strategies and interventions, official reports about progress towards MDGs, and socio-economic development in Afghanistan during the same time frame.

The Lives Saved Tool (LiST) is a modeling tool based on the original Lancet Child Survival (2003) and Neonatal Survival series (2005) and is built into a demographic software package (Spectrum^{TM}). The model has been substantially improved and modified since it was first

developed. LiST models standard sequential introduction of interventions to avoid double counting of impact and estimate reduction in deaths from one or more causes or prevalence of risk factor by increasing coverage of interventions. Based on the coverage change and the effectiveness of a given intervention, the number of deaths prevented is then calculated. We used most recent national mortality and cause -of -death data for mothers, newborns and children from the IGME, IHME and Child Health Epidemiology Group (CHERG) with WHO based international classification of disease (ICD) guidelines. Baseline coverage data of interventions were taken from MICS 2010/11 data. If coverage data were not available for any intervention then estimates were made on known coverage of other interventions as described in the LiST manual.

Data Quality and Representativeness

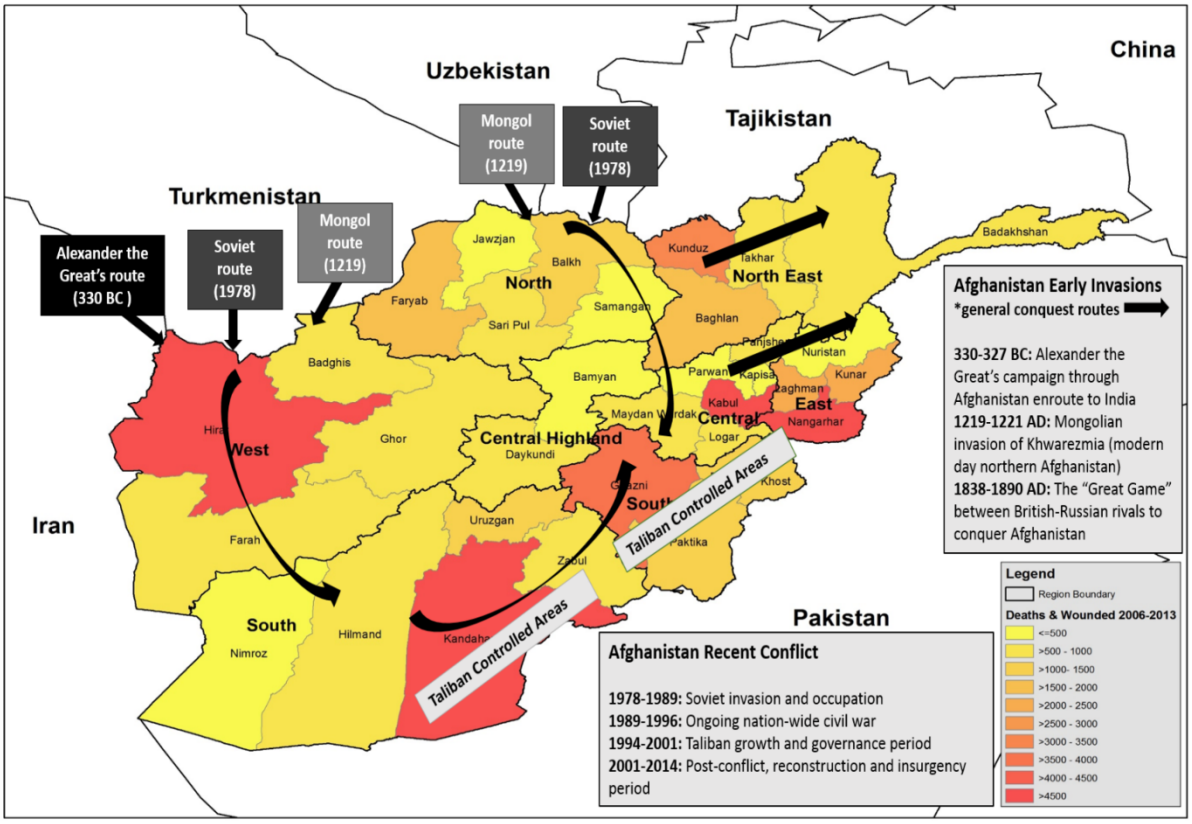
A systematic and thorough data quality assurance process was undertaken by the internal statistical team to ensure accuracy and reliability of estimates. Original data at the individual and household level were obtained and further cleaned and aggregated as required. Estimates were iteratively cross-referenced with published reports to ensure validity. Immunization data from MICS 2003 were excluded due to known data quality issues [1]. Data from AMS 2010 was particularly flawed for the Southern Zone of Afghanistan, which had low coverage of rural areas, and implausible sex ratios at birth and estimates of child, adult and maternal mortality even after adjustment to include only Northern and Central Zones [8]. The survey had a general under reporting of neonatal deaths and high proportions of interviewers recording 0 child deaths [8]. We thus relied heavily on mortality estimates from global estimation groups. Lack of representation of population subsets was an issue in most surveys and was primarily due to conflict and insecurity which typically impacted Southern provinces. As a result, there might be a general under-representation of the South across surveys (e.g. AMS, NNS). The strengths of NRVA and AHS were that they included more of the Kochi ethnic group and rural populations, respectively. The AHS 2006 excluded all 6 major urban cities in the country and was representative of only the rural Afghan population; we therefore excluded this survey from

national time trend analysis. An overview of survey objectives, quality issues and representation is included in Box 1 below.

Figure A1: Afghanistan location and current and past conflict history

Map illustrates distribution of civilian casualties (deaths and wounded) by province from 2006–2013.

Source: Health Management Information System, Afghanistan MOPH, personal communication, 2014 and routes of Afghanistan's prehistorical and recent invasions



Box 1: Maternal and child health relevant surveys in Afghanistan from 2003 to 2013

National Surveys	Year	Key Objectives	Representation	Sample Coverage Limitations
Expanded Program on Immunization Census	2013	The objective was to estimate the levels of immunization coverage and explore reasons for gaps in coverage among women and children.	National & Provincial	• A total of 1017 clusters across the country were selected for inclusion in the study (~30 per province). • Insecure clusters were excluded from the sampling frame by the CSO; another 16 clusters were excluded due to active insecurity on the ground or geographical constraints (9 of these were in Badakhshan). • No mention of where the insecure clusters were located. • Among selected households, response rates were high (>98%)
National Nutrition Survey	2013	The aim was to provide estimates on various nutrition indicators (including micronutrient deficiencies) for women, children, adolescent girls and the elderly in Afghanistan.	National & Provincial	• A total of 18,360 households across 1020 clusters nationally were required • Sixteen clusters could not be surveyed due to insecurity ○ Few (~4-5) of the 30 required survey clusters for each of Paktia and Badakhshan provinces were not accessible due to insecurity and/or other access restrictions. • Of households approached, response rates were high at about 96%
National Nutrition Survey	2004	This was an integrated survey on the overall nutritional and micronutrient status of the Afghan population, including children, men and women.	National	• A total of 35 clusters (at about 30 households per cluster) were needed to derive sufficiently powered estimates at the national level. Data collection was planned from 39 clusters of which 7 were inaccessible due to insecurity. These were spread out across: Kandahar, Helmand, Khost, Paktika, Kunar, Laghman. The final sample was from 32 clusters.
Afghanistan Health Survey	2012	The objective was to provide information on key indicators for maternal and child health, health-seeking behavior, out-of-pocket expenditures, and	National & Provincial	• A total of 563 clusters across 34 provinces were selected for sampling, accounting for 7% non-response rate. Of these, 11 clusters were dropped due to insecurity. No mention of where the insecure clusters were located. • Response rates were high with 99.4% of scheduled households

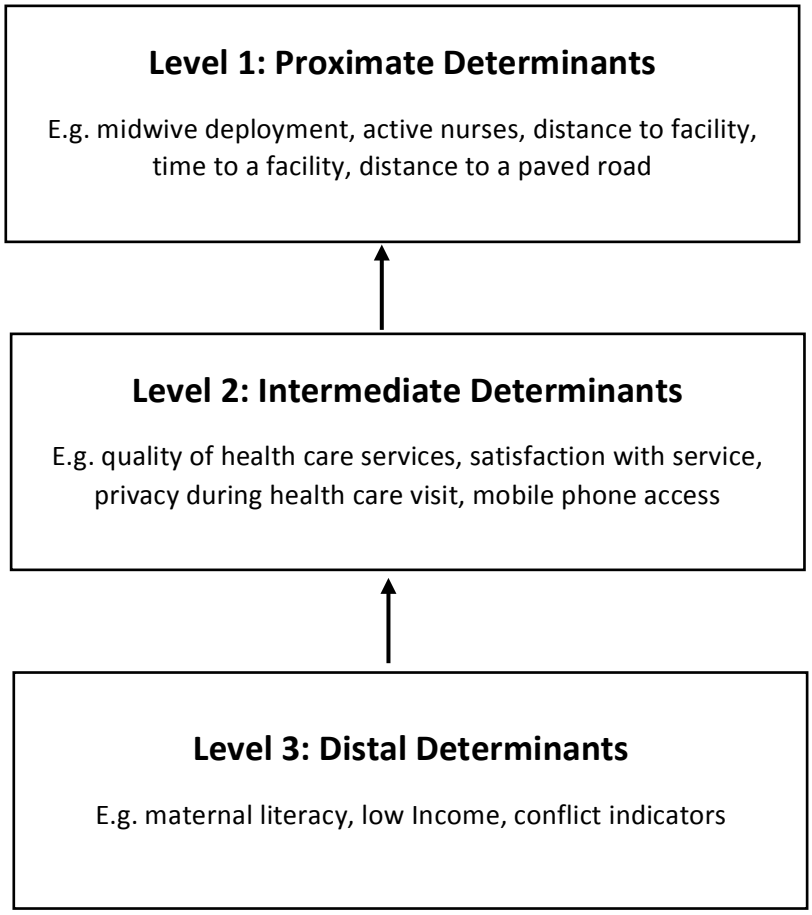
		utilization.		successfully interviewed
Afghanistan Health Survey	2006	This was a population based survey designed to provide information on maternal and child health, child survival, family planning, health care utilization and related expenditures in **rural** Afghanistan. The key objective was to assess the impact of BPHS implementation, which is largely targeted at rural areas.	National Rural Population	• Given the focus on rural areas, the six largest cities in Afghanistan were excluded: Kabul, Herat, Mazar-e-Sharif, Kunduz, Jalalabad, Kandahar • Only 29/34 provinces were included; Kandahar, Helmand, Zabul, Uruzgan, and Nuristan were excluded prior to selection of clusters due to insecurity and inaccessibility constraints. • Of 425 selected clusters, 93.4% completed and others dropped due to insecurity or flood/snow. • Of the household interviews, 99.5% were successfully completed • The total sample represents only 72% of rural population of Afghanistan.
Multiple Indicator Cluster Survey	2010-11	The objective was to conduct a situational assessment of women and children in Afghanistan, with specific focus on social, health and educational statuses and disparities.	National & Regional (8 regions)	• A total of 516 enumeration areas (EA) were selected with 30 households per EA; of which, 67 EAs were not surveyed due to security reasons; suggesting a reduction in effective sample size o No indication of where the 67 dropped EAs were located • Overall response rate among visited households was high at about 98.5%
Multiple Indicator Cluster Survey	2003-04	The objective was to conduct a situational assessment of women and children in Afghanistan, with specific focus on social, health and educational statuses and disparities.	National & Provincial	• About 553 households per province (32 provinces) were sampled • Due to insecurity, about 1% of all areas were inaccessible; these were replaced for data collection. • The nomadic Kuchi population was not sampled • Survey had an urban bias (30% vs 22%-23% in Afghanistan) • Specific errors with MICS 2003: o Mortality estimates from this survey were flawed and should not be used as they were based on estimations of children that died (not births) and used incorrect methods • Immunization data was not consistently coded and were of

				questionable quality
Afghanistan Mortality Survey	2010	The objective was to measure mortality levels and causes of death, with a special focus on maternal mortality; including disaggregation of mortality data by age and sex and sub-nationally. The study also explored data on fertility and family planning behavior and on the utilization of maternal and child health services.	National & Regional (3 mega regions: Central, Northern, Southern)	• A total of 751 enumeration areas (EA) were selected with 32 households per EA; of which 37 EAs were not surveyed (34 for security reasons) • Rural areas of Kandahar, Helmand, and Zabul were excluded from the sample selection due to insecurity (representing 8.8% of total households of the country) • There were supervision issues in the Southern region which included provinces: Ghazni, Helmand, Kandahar, Khost, Kunar, Laghman, Nangarhar, Nimroz, Nuristan, Paktika, Paktia, Urozgan and Zabul • AMS represented only 87% of the country of which 98%, 99%, and 66% of the North, Central and Southern regions, respectively, were surveyed • Of the total scheduled household interviews, response rates were more than 98%. • Specific flaws with AMS: o Southern Zone had low coverage of rural areas, and implausible mortality time trends and sex ratios at birth o Under reporting of neonatal deaths and high proportions of interviewers recording 0 child deaths o Estimates of child, adult and maternal mortality from AMS 2010 were implausible, even after adjustment to include only Northern and Central Zones
National Risk and Vulnerability Assessment Survey	2011-12	To provide the latest information about the living conditions of Afghanistan's population about the performance of, among others, the agricultural sector, the	National & Provincial	• Of the 357 districts and provincial centers identified for sampling, only 96% were completed; 15 were excluded due to security concerns in areas including Badakhshan, Herat, Ghor, Helmand, among others. • Due to security problems, work by female interviewers in Zabul province was severely restricted; thus data on MNCH, fertility and

		labour market and the education and health systems, and health outcomes.		mortality is largely missing. • Of the total household interviews scheduled, 99.2% were completed. • Strengths: included nomadic Kuchi population; female interviewers participated; survey represented 12 months thus data reflected seasonality
National Risk and Vulnerability Assessment Survey	2007-08	The aim was to have multi-topic household survey that includes estimates on food consumption, demography, housing infrastructure, assets and credit, agriculture and livestock, migration, and child and maternal health.	National & Provincial	• Of the 396 districts and provincial centers identified for sampling, 5 were excluded due to security concerns • Due to security problems, work by female interviewers in Urozgan province was severely restricted; thus data on MNCH, fertility and mortality is largely missing. • Strengths: included nomadic Kuchi population; female interviewers participated; survey represented 12 months thus data reflected seasonality
National Risk and Vulnerability Assessment Survey	2005	The primary objective is to collect information at community and household level to better understand livelihoods of Kuchi (nomadic pastoralists), rural and urban households throughout the country, and to determine the types of risks and vulnerabilities they face. Data collected included food consumption, demography, housing infrastructure, assets and credit, agriculture and livestock, migration, and child and maternal health.	National & Provincial	• A total of 392 districts were sampled; of the initial proposed set, 6 districts were not enumerated as a household listing was not available, and 12 districts (11 in Zabul, 1 in Kandahar) had only male interviewers due to security restrictions • Survey represented only summer 3 months thus did not adequately reflect seasonality • Strengths: included nomadic Kuchi population; female interviewers participated

Web Methods 2. Hierarchical Modeling Methods

Variables identified as pertinent to change in facility births and/or skilled birth attendance ($p<0.20$ in bivariate analysis) were entered into a series of models using the hierarchical approach suggested by Victora (1997) [12]. We identified three levels as illustrated below: level 1 represents the most proximate determinants, level 2 are intermediate factors, and level 3 are the most distal socioeconomic and contextual factors. Although determinants were measured at the ecological level, we tracked the decision-making process leading to change as it would occur for an individual woman deciding to seek a SBA or give birth in a facility. This hierarchical model building approach was undertaken as the ultimate goal is to approximate determinants of change at the individual level.



Web Methods 3. LiST Modeling

The Lives Saved Tool (LiST) is a modeling tool based on the original Lancet Child Survival (2003) and Neonatal Survival series (2005) and is built into a demographic software package (Spectrum^{TM}). The model has been substantially improved and modified since it was first developed. LiST models standard sequential introduction of interventions to avoid double counting of impact and estimate reduction in deaths from one or more causes or prevalence of risk factor by increasing coverage of interventions. Based on the coverage change and the effectiveness of a given intervention, the number of deaths prevented is then calculated [13].

We used most recent national mortality and cause-of-death data for mothers, newborns and children from the IGME, IHME and Child Health Epidemiology Group (CHERG) with WHO based ICD guidelines. Baseline coverage data of interventions were taken from MICS 2010 data. If coverage data were not available for any intervention then estimates were made on known coverage of other interventions as described in the LiST manual.

We modeled potential impact of interventions available in LiST for Afghanistan. Details of interventions are presented in the table below. The interventions were scaled up from their most recent coverage level to three target coverage levels i.e. 50%, 75% and 90% until the year 2025; if the most recent coverage of a particular intervention was at or more than specified target level, then we kept it constant.

Lives Saved Tool list of interventions by packages

Packages	Interventions within Package
Optimizing maternal nutrition and care preconception and during pregnancy	Folic acid supplementation or fortification
	Multiple micronutrient supplementation
	Balanced energy supplementation
	Iron folate supplementation
	Calcium supplementation
	Contraceptive use
Expanded antenatal care package	Syphilis detection and treatment
	Tetanus toxoid
	MgSO4 management of pre-eclampsia
	Diabetes screening and management
	Screening for fetal growth restriction and appropriate management
	Birth order
	Hypertensive disease case management
Child birth including maternal emergency obstetric care & immediate newborn care	Safe abortion services
	Post abortion case management
	Antibiotics for PRoM
	Labor and delivery management
	Clean birth practices
	Antenatal corticosteroids for preterm labor
	Labor and delivery management
	Immediate assessment and stimulation
	Neonatal resuscitation
	Active management of 3rd stage of labor
	MgSO4 management of eclampsia
	Induction of labour to prevent births at or beyond 41 completed weeks*
Postnatal care (including community newborn and child care)	Thermal care
	Clean postnatal practices
	Kangaroo mother care
	ITN/IRS - Ownership of insecticide treated nets (ITN/LLIN) or household protected with indoor residual spraying
	Chlorhexidine
Water, sanitation and hygiene interventions	Improved water source
	Water connection in the home
	Improved sanitation - Utilization of latrines or toilets
	Hand washing with soap
	Hygienic disposal of children's stools
IYCF Package	Promotion of breastfeeding
	Appropriate complementary feeding

Packages	Interventions within Package
	Vitamin A supplementation
Expanded immunization package	DPT
	Hib
	Pneumococcal
	Rotavirus
	Measles
Case management	Case management of maternal sepsis
	Case management of severe neonatal infection
	ORS - oral rehydration solution
	Zinc - for treatment of diarrhea
	Vitamin A - for treatment of measles
	Antibiotics - for treatment of dysentery
	Oral antibiotics : case management of pneumonia in children
	Antimalarials - Artemesinin compounds for malaria
Management of severe acute malnutrition	Therapeutic feeding - for severe wasting
	Treatment for moderate acute malnutrition

Web Analysis 1: Hierarchical Model Building

Figure A1: Hierarchical multivariable analysis of predictors of change in skilled birth attendance and facility births from 2003 to 2010 (n=34).

	Unstandardized β Coefficient	***95% CI***	***P-value***	***Standardized β Coefficient***
	Change in Skilled Birth Attendance			
Community midwives deployed [a, L1]	1.04	0.29- 1.80	0.009	0.50
Active nurses [b, L1]	-3.29	-6.79- 0.20	0.064	-0.32
Distance to facility (km) [L1]	-2.31	-4.13- -0.48	0.015	-0.40
Quality of care [L2]	0.86	0.016- 1.71	0.046	0.35
Mobile phone tower*/spread ratio* [c, L2]	-6.30	-13.59- 1.00	0.088	-0.31
Low income [L3]	-0.34	-0.59- -0.10	0.008	-0.47
	Change in Facility Births			
Community midwives deployed [a, L1]	0.90	0.12- 1.68	0.025	0.45
Time to facility (min) [L1]	-0.22	-0.53- -0.078	0.039	-0.27
Privacy [L2]	0.81	0.17- 1.44	0.015	0.43
Maternal literacy [L3]	1.07	0.43- 1.72	0.002	0.58
Coalition fatalities [c, L3]	-2.40	-4.43- -0.37	0.022	-0.37

Min=minutes. Km=kilometres.

[a] rate of community midwives trained and deployed / 100,000 population in province from 2003 to 2010. [b] rate of active nurses / 100,000 population in province in 2010. [c] variable log transformed due to skewed distribution.
NB. Standardized coefficients permit direct comparison across predictors. There was no statistically significant collinearity (variance inflation factors <2). Baselines (2003) coverage for SBA and facility births were included as covariates in each of the respective model hierarchies. Determinants were retained if p<0.10.

Web Analysis 2: Health Systems and Policy

Assessment of Health Systems (Balance Score Card)

The aim of the BSC is to assess the quality of the BPHS and EPHS within 6 domains against standard acceptable benchmarks; these include: 1) Client and Community, 2) Human Resources, 3) Physical Capacity, 4) Quality of Service Provision, 5) Management Systems, and 6) Over Mission [14].

A set of 22 indicators measured as a percentage score from 0 to 100 are assessed across the domains. We present national medians for all indicators for BPHS facilities from 2004 to 2011/12 in Table A2 below; detailed indicator definitions have been provided elsewhere [14]. Indicators that have been modified across successive BSC cycles are not directly comparable and have been separated for clarity.

A summary of key results from 2004 to 2011/12 follows:

1) Client and Community- At the national level, the country experienced sustained good performance in patient satisfaction and perceived quality of care (range 76%-86% across the years), and community involvement in decision making at BPHS facilities is also high (~80% in 2011/12);

2) Human Resources- Health worker satisfaction (65%), motivation (69%), and knowledge (64%) seem modest in 2011/12, although the proportion of workers whose average salary payment is up-to-date has declined over the years (from 77% in 2004 to 65% in 2011/12). Employee training indicators appear poor in 2011/12 with only 25% meeting minimum staffing guidelines and 11% trained in the past year;

3) Physical Capacity- Physical capacity remained high in BPHS facilities Afghanistan in 2011/12, specifically with regards to availability of equipment (75%), pharmaceuticals and vaccines (77%), functional laboratories (66%) and clinical guidelines (70%); however the median level of adequate health facility infrastructure remains suboptimal (56% in 2011/12).

4) Quality of Service Provision- An evaluation of the quality of services provided suggests that the patient's background and physical assessment is generally adequately appraised (national median of 74% in 2011/12), although severe deficiencies appear in adequate client counselling (45%) and time spent with the patient (16%). Utilization of universal precautions on health facility site seem modest at best (62%).

5) Management Systems- Use of the health management information system (HMIS) is high in Afghanistan (75% in 2011/12) but substantial deficiencies exist in functionality of financial

systems and management of the health facilities (national median scores 41% and 50% respectively).

6) Overall Mission- We examined concentration indices in 2011/12 to assess equity between the rich and poor in the use of outpatient services and patient satisfaction. A score of 50 represents equal utilization by all wealth groups, whereas higher values indicate pro-poor and lower numbers reflect pro-rich utilization. National medians indicate that outpatient services are utilized slightly more by the rich (45% in 2011/12), and there appear to be no difference between the rich and poor in their level of satisfaction with services (50% in 2011/12).

We calculated a mean score across all domains and indicators to evaluate overall BPHS health facility performance by province in 2011/12 (Figure A2 below). The national median was approximately 54%, indicating a general deficiency in BPHS facility performance in Afghanistan. Provinces ranking lowest included Zabul (43%), Kabul (48%), and Ghor (50%), and best performers were Nuristan (77%), Kunar (72%), and Nangarhar (70%).

Table A2: National Medians for 22 indicators from the BPHS Balance Score Card assessments from 2004 to 2011/12.

Source: Balance Score Card, 2011-12 [14]

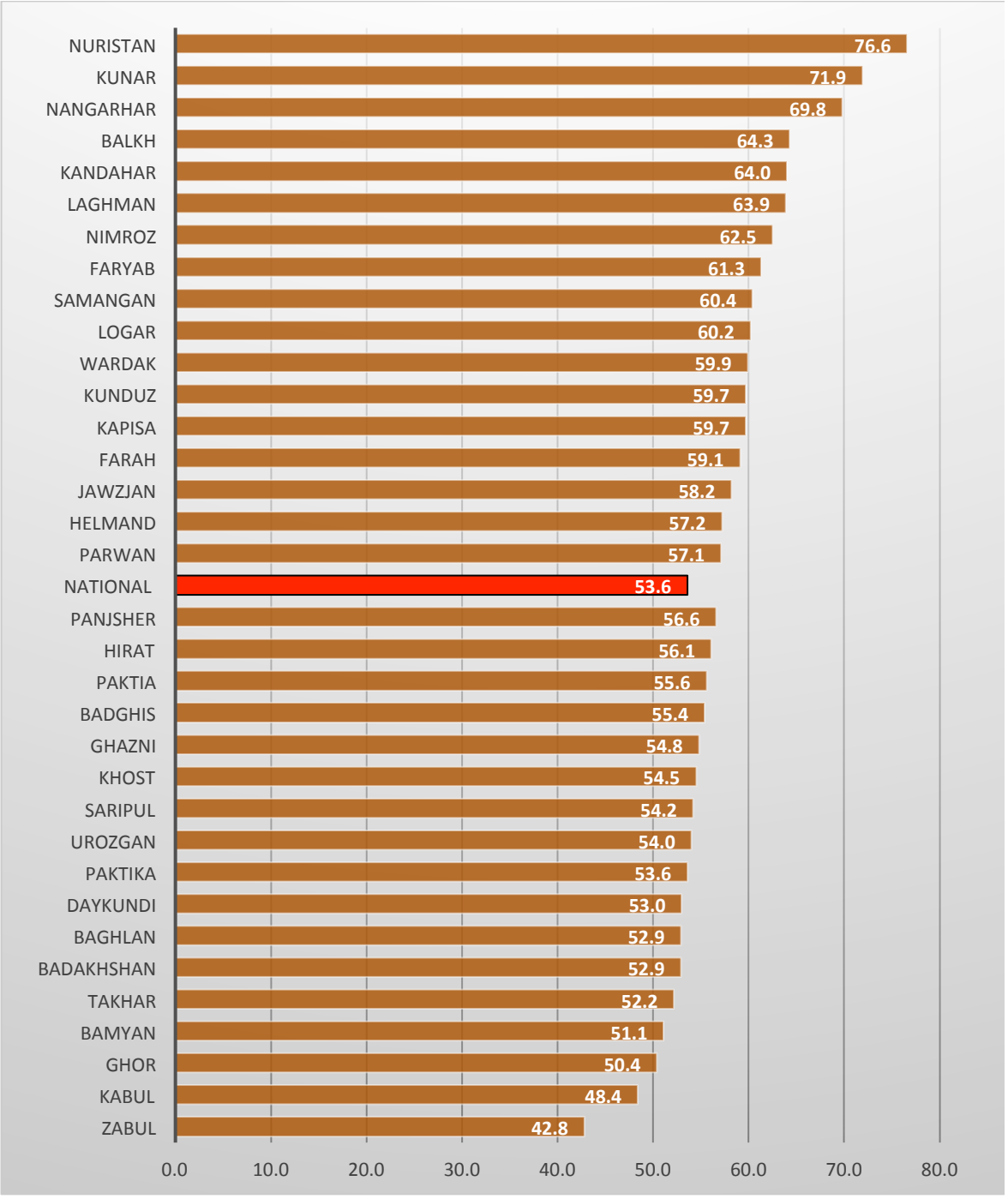
AFGHANISTAN HEALTH SECTOR		National Medians						
		2004	2005	2006	2007	2008	2009-10	2011-12
Domain A	**Client and Community**							
1	*Overall Patient Satisfaction*	83.1	86.3	86.0	77.7	81.0	76.0	-
	Patient Perception of Quality Index	76.0	76.2	80.3	77.6	77.5	77.2	-
	Overall Client Satisfaction and Perceived Quality of Care Index	-	-	-	-	-	-	77.2
2	*Written Shura-e-sehie activities in community*	34.2	54.5	66.4	86.0	94.3	82.9	-
	Community Involvement and Decision Making Index	-	-	-	-	-	-	80.4
Domain B	**Human Resources**							
3	*Health Worker Satisfaction Index*	63.5	64.1	68.1	69.0	69.1	68.4	-
	Revised Health Worker Satisfaction Index	-	-	-	-	-	-	54.5
4	Health Worker Motivation Index	-	-	-	-	-	-	69.3
5	Salary Payment Current	76.7	90.0	81.3	90.7	82.7	70.8	64.5
6	*Staffing Index -- Meeting minimum staff guidelines*	39.3	58.0	66.9	63.9	72.1	90.2	-
	Revising Staff Index -- Meeting minimum staff guidelines	-	-	-	-	-	-	25.4
7	*Provider Knowledge Score*	53.5	69.0	68.7	68.7	-	-	-
	Revised Provider Knowledge Score	-	-	-	-	79.3	-	-
	Revised Revised Provider Knowledge Score	-	-	-	-	-	70.6	-
	New Provider Knowledge Score	-	-	-	-	-	-	64.4
8	*Staff received training in last year*	39	74.3	68.9	68.5	71.1	47.2	-
	Revised Staff Received training (in last year)	-	-	-	-	-	-	11.1
Domain C	**Physical Capacity**	-	-	-	-	-	-	-
9	*Equipment Functionality Index*	65.7	67	78.7	83.8	88.4	86.6	-
	Revised Equipment Functionality Index							74.5
10	*Drug Availability Index*	71.1	83.7	85.7	81	86.3	90	
	Pharmaceuticals and Vaccines Availability Index							76.6
11	Laboratory Functionality Index (Hospitals & CHCs)	18.3	36.3	43.3	58.5	64.5	63	
	Laboratory Functionality Index (CHCs only)							66.3
12	*Clinical Guidelines Index*	34.8	48.9	61.6	78.3	83.9	80.3	
	Revised Clinical Guidelines Index							70.3

13	*Infrastructure Index*	55	44.6	48.7	54.6	54.1	64.1	
	Revised Infrastructure Index							55.6
Domain D	**Quality of Service Provision**							
14	Patient History and Physical Exam Index	70.6	73.5	82.2	83.1	83.9	74.3	-
	Client Background and Physical Assessment Index	-	-	-	-	-	-	73.8
15	Patient Counseling Index	29.6	35.1	36.6	48.7	48	30	-
	Client Counselling Index	-	-	-	-	-	-	44.7
16	Proper sharps disposal	62.2	52	77.5	84.4	75.4	71.3	-
	Universal Precautions	-	-	-	-	-	-	61.6
17	Time Spent with Client	18	6.2	7	18.4	19.7	9.6	16.1
Domain E	**Management Systems**							
18	HMIS Use Index	67.7	65.8	74.9	91.5	92.4	77.3	-
	Revised HMIS Use Index	-	-	-	-	-	-	75.1
19	Financial Systems	-	-	-	-	-	-	40.6
20	Health Facility Management Functionality Index	-	-	-	-	-	-	50.4
Domain F	**Overall Mission**							
21	Outpatient visit concentration index	50.5	50.6	51.2	50	50	-	-
	New Outpatient visit concentration index	-	-	-	-	-	49.4	44.5
22	Patient satisfaction concentration index	49.9	49.8	49.8	49.6	49.6	-	-
	New Patient satisfaction concentration index*	-	-	-	-	-	50	49.9

Figure A2: Overall mean scores of BPHS health facility performance by province, 2011-12

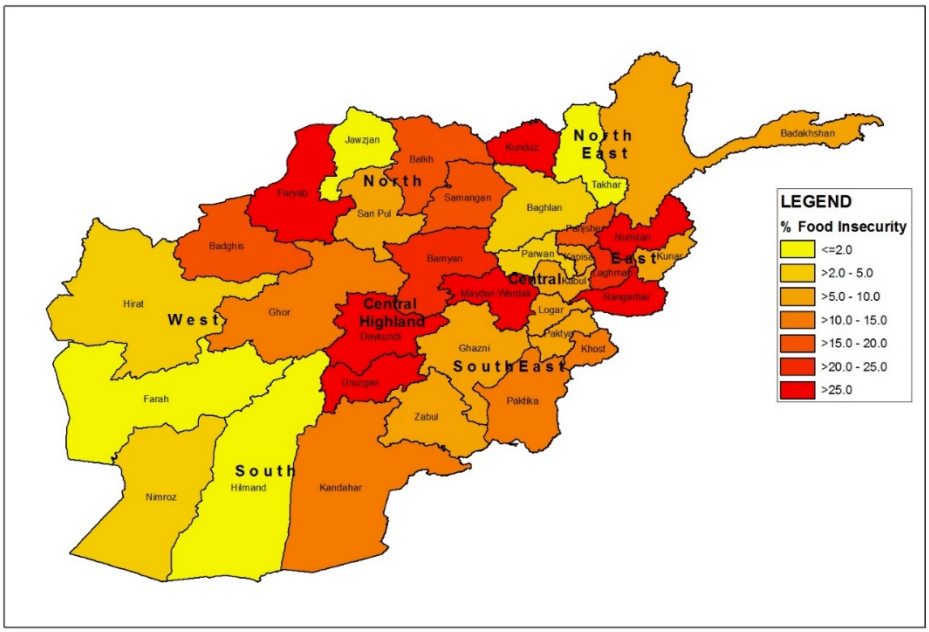
Source: Balance Score Card, 2011-12 [14]

Note: Due to insecurity, Nuristan was not captured in 2011-12 sampling; estimates presented her
BSC 2009-2010.



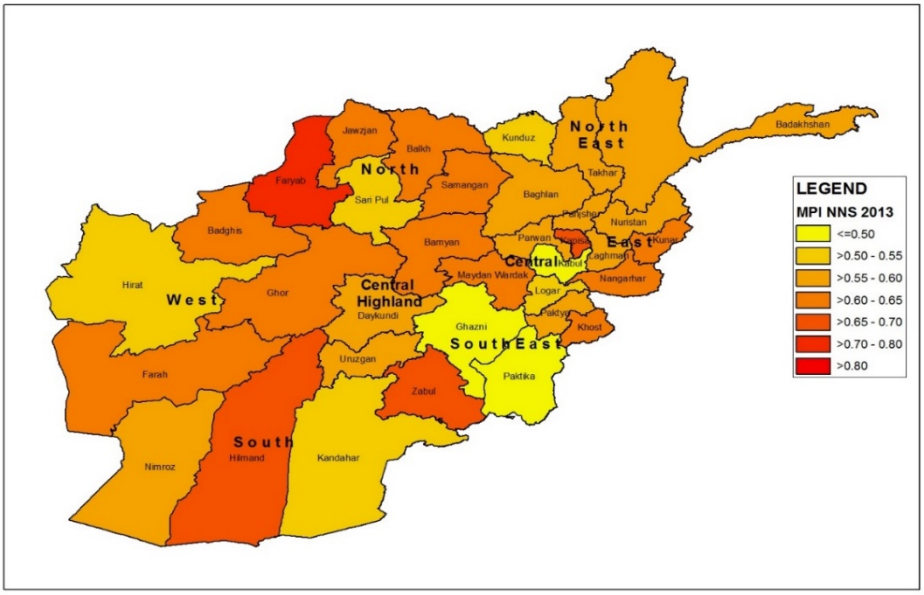
Web Figure 1a: Prevalence of food insecurity across provinces in Afghanistan, 2013

Source: National Nutrition Survey, 2013

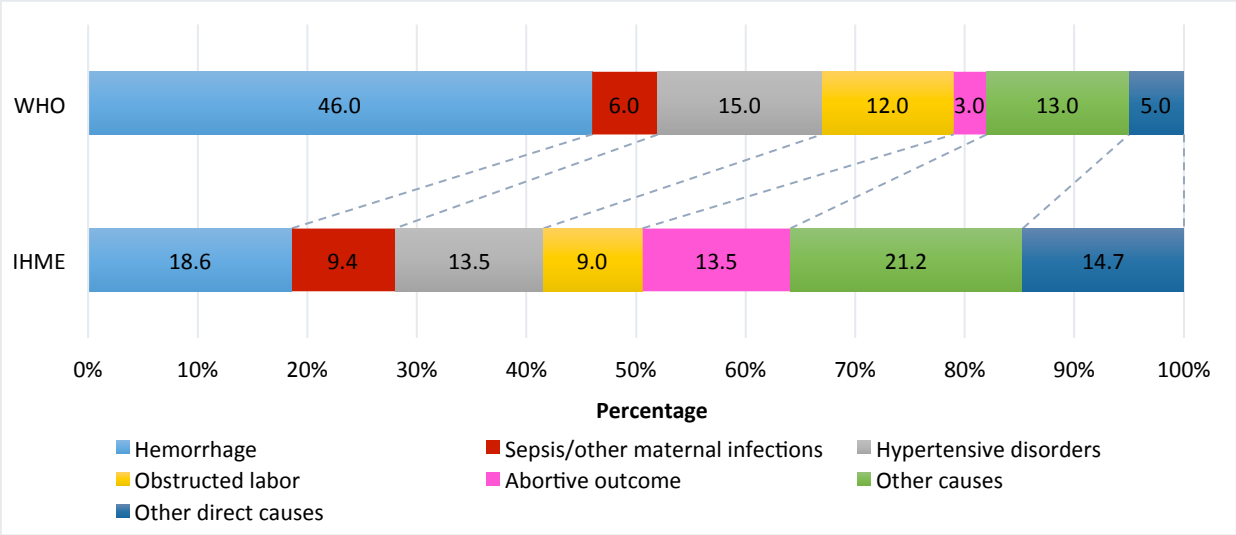


Web Figure 1b: Multidimensional poverty across provinces in Afghanistan, 2013

Source: National Nutrition Survey, 2013

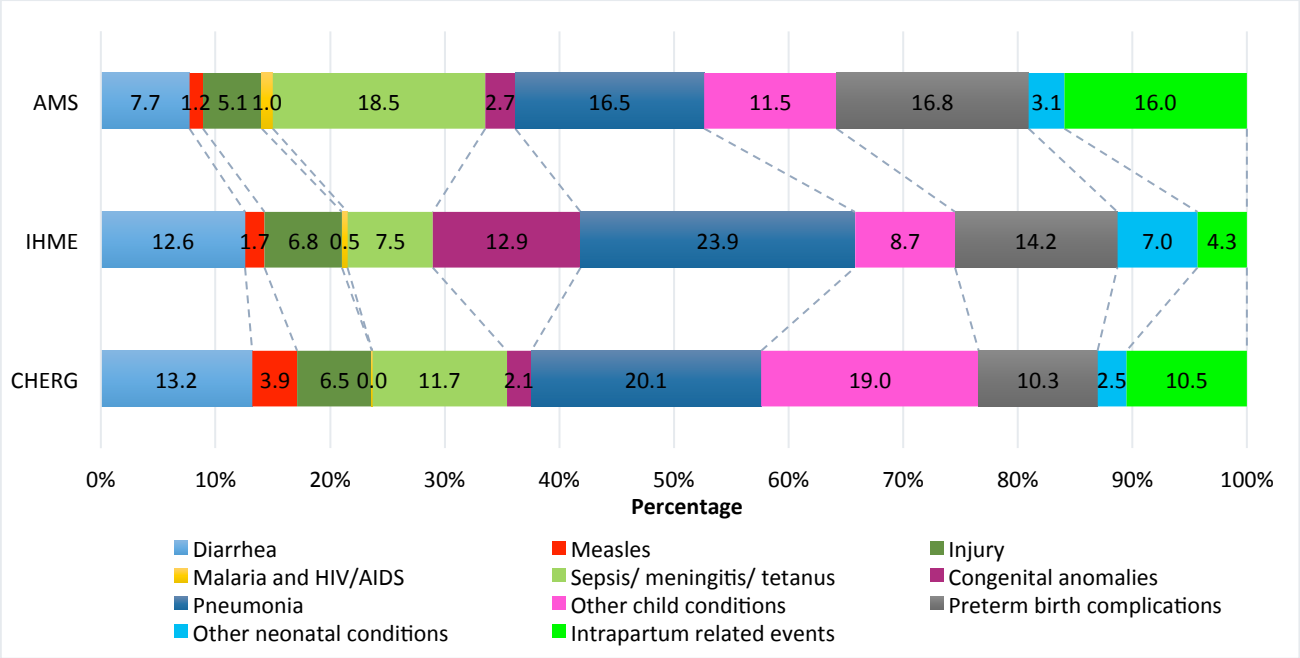


Web Figure 2: Comparative major maternal causes of death (15-49 years) in Afghanistan estimated from the World Health Organization (WHO) for 2003-2009 [15], and Institute for Health Metrics and Evaluation (IHME) for 2013 [16].



Respective sample sizes are: WHO n=63,585; IHME n=8,778.

Web Figure 3: Comparative major causes of death of children 0-59 months in Afghanistan estimated from the Afghan Mortality Survey (AMS) for 2010 [8], and the Child Health Epidemiology Reference Group (CHERG) [17], and Institute for Health Metrics and Evaluation (IHME) for 2013 [16].

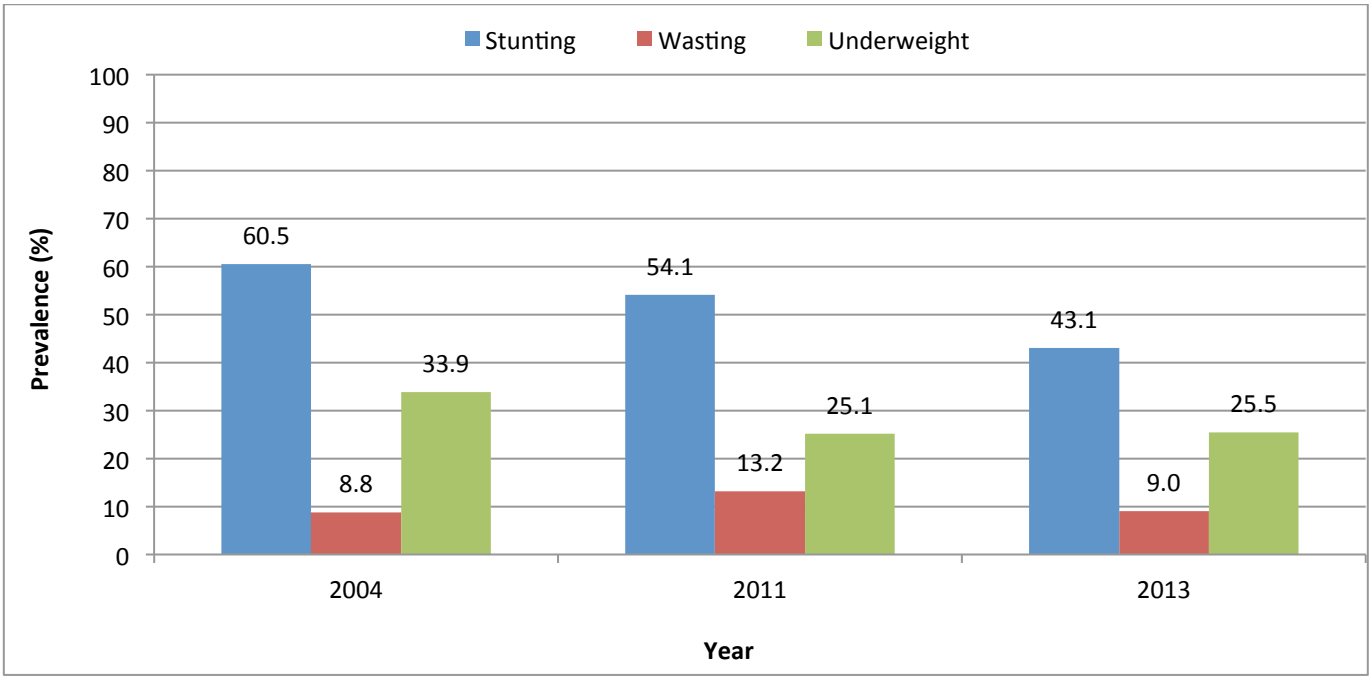


**Respective sample sizes are: AMS n=1993; IHME n=94,720; CHERG n=100,106.*

Web Figure 4: Trends in anthropometric nutrition outcomes among children 6-59 months in Afghanistan from 2004-2013.

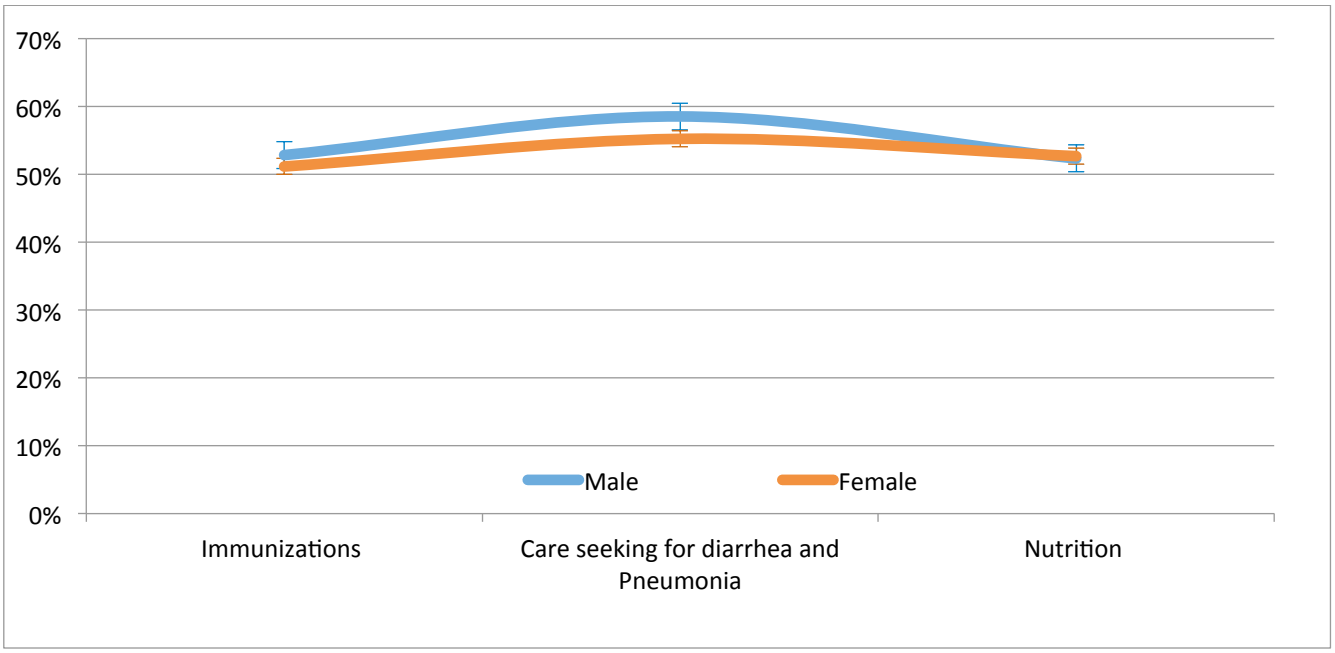
Sources: National Nutrition Survey, 2004, 2013. Multiple Indicator Cluster Survey 2010/11.

Note: 95% confidence intervals are presented here: *Stunting* (60.5 [57.3, 63.7]; 54.1 [53.2, 55.0]; 43.1 [42.4, 43.8]; *Wasting* (8.8 [6.9, 10.7]; 13.2 [12.6, 13.8]; 9.0 [8.6, 9.4]); *Underweight* (33.9 [30.9, 36.9]; 25.1 [24.3, 25.9]; 25.5 [24.9, 26.1])



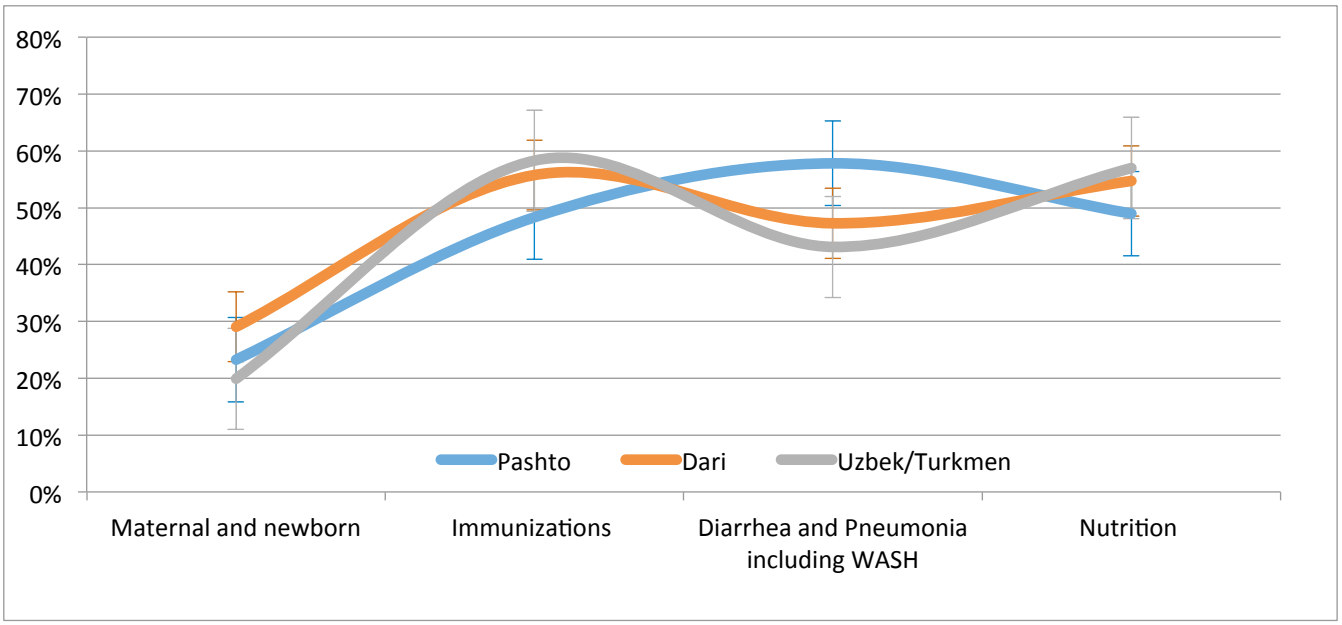
Web Figure 5a: Disparities in coverage of intervention packages across the continuum of care by gender

Source: Multiple Indicator Cluster Survey 2010/11



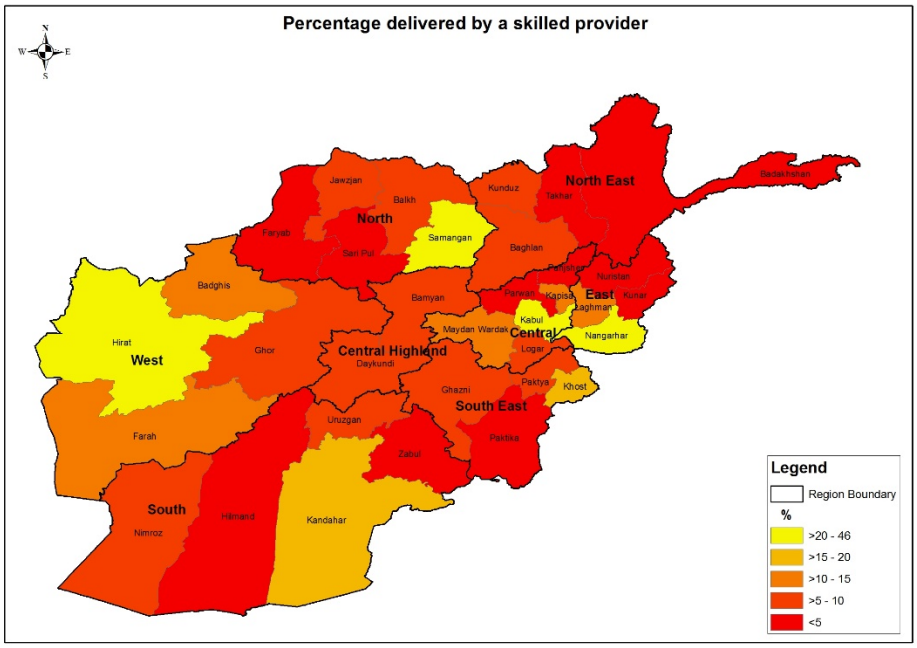
Web Figure 5b: Disparities in coverage of intervention packages across the continuum of care by ethnicity

Source: Multiple Indicator Cluster Survey 2010/11



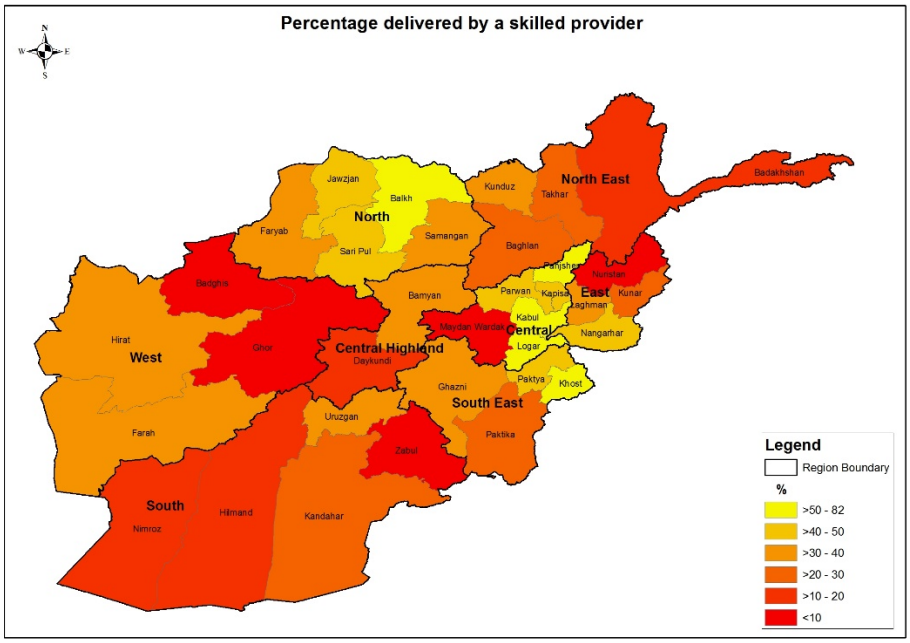
Web Figure 6a: Coverage of skilled birth attendance in 2003

Source: Multiple Indicator Cluster Survey 2003/04



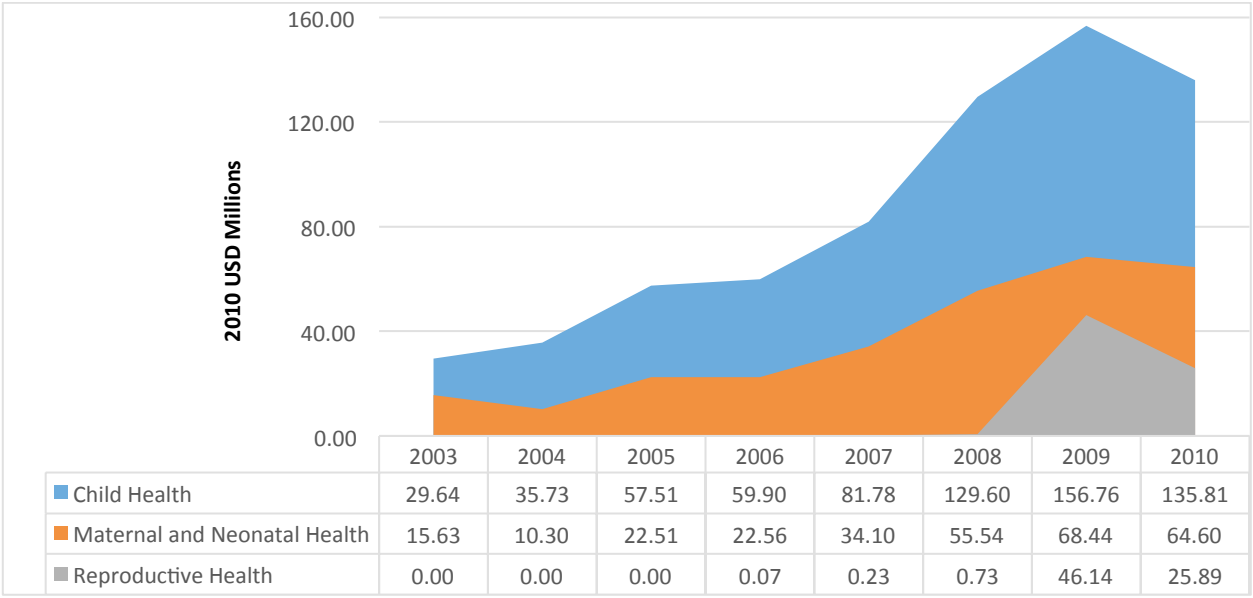
Web Figure 6b: Coverage of skilled birth attendance in 2010

Source: Multiple Indicator Cluster Survey, 2010/11



Web Figure 7a: Official development assistance to Afghanistan for maternal and neonatal, child, and reproductive health from 2003 to 2010.

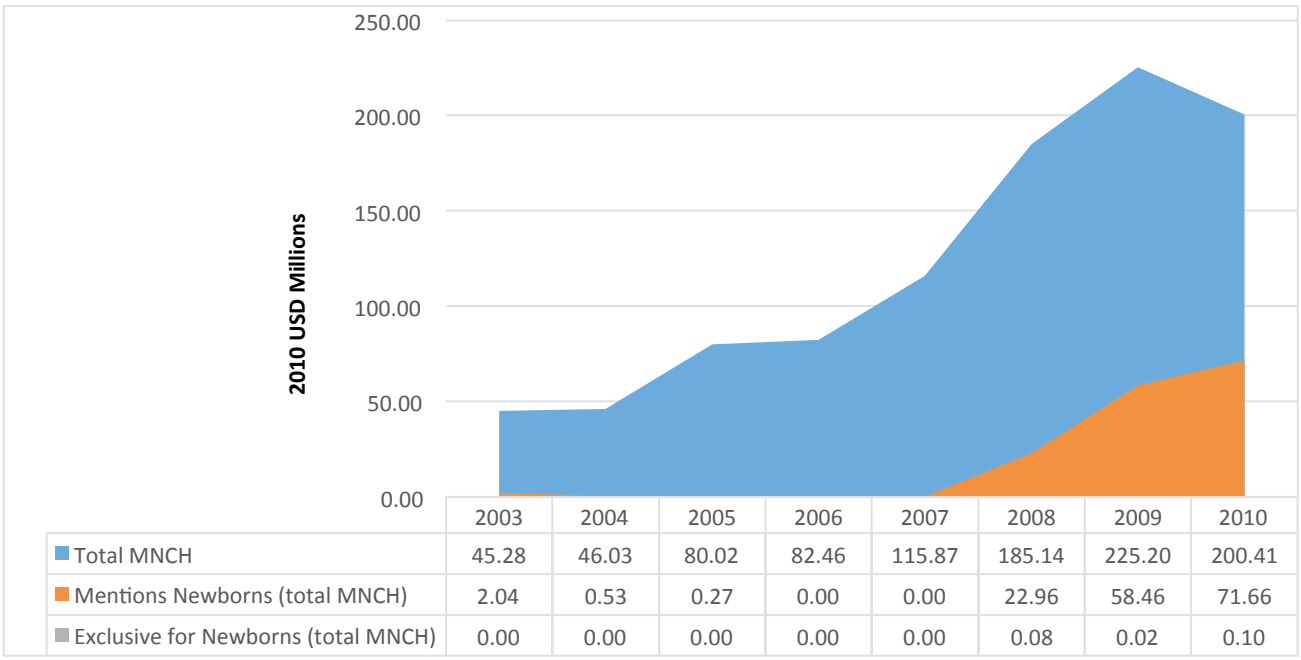
Source: Organization for Economic Co-operation and Development (OECD) Creditor Reporting System database, 2014 [18]



	2003	2004	2005	2006	2007	2008	2009	2010
Child Health	29.64	35.73	57.51	59.90	81.78	129.60	156.76	135.81
Maternal and Neonatal Health	15.63	10.30	22.51	22.56	34.10	55.54	68.44	64.60
Reproductive Health	0.00	0.00	0.00	0.07	0.23	0.73	46.14	25.89

Web Figure 7b: Official development assistance to Afghanistan that is exclusive to or mentions newborns from 2003 to 2010.

Source: Organization for Economic Co-operation and Development (OECD) Creditor Reporting System database, 2014 [18]



	2003	2004	2005	2006	2007	2008	2009	2010
Total MNCH	45.28	46.03	80.02	82.46	115.87	185.14	225.20	200.41
Mentions Newborns (total MNCH)	2.04	0.53	0.27	0.00	0.00	22.96	58.46	71.66
Exclusive for Newborns (total MNCH)	0.00	0.00	0.00	0.00	0.00	0.08	0.02	0.10

Web Table 1: Definitions and data sources for indicators relating to skilled birth attendance and facility births in Afghanistan.

*all indicators estimated at the province level (n=34)

Indicators	Metric	Definition	Data Sources
Outcome	Change in skilled birth attendance	Skilled birth attendance: Proportion of live births attended by skilled health attendant (doctor, nurse, midwife or auxiliary midwife) Change in skilled birth attendance: Delta difference between baseline (2003) and endline (2010) skilled birth attendance prevalence estimates.	Multiple Indicator Cluster Survey, 2003/04 Multiple Indicator Cluster Survey, 2010/11
Outcome	Change in facility births	Facility births: Proportion of births had in health care facility Change in facility births: Delta difference between baseline (2003) and endline (2010) facility birth prevalence estimates.	Multiple Indicator Cluster Survey, 2003/04 Multiple Indicator Cluster Survey, 2010/11
Health Care Resources	Active health facilities	Total active provincial and district hospitals, and comprehensive, basic, and sub-health centres per 100,000 provincial population in 2010	Ministry of Public Health, Afghanistan
	District hospitals	Active district hospitals per 100,000 provincial population in 2010	Ministry of Public Health, Afghanistan
	Comprehensive health centres	Active comprehensive health centres per 100,000 provincial population in 2010	Ministry of Public Health, Afghanistan
	Basic health centres	Active basic health centres per 100,000 provincial population in 2010	Ministry of Public Health, Afghanistan
	Mobile clinics	Active mobile health clinics per 100,000 provincial population in 2010	Ministry of Public Health, Afghanistan
	Community midwives deployed	Total community midwives trained and deployed from 2003 to 2010 per 100,000 provincial population	Ministry of Public Health, Afghanistan
	Active midwives	Employed midwives per 100,000 provincial population in 2010	Ministry of Public Health, Afghanistan
	Active nurses	Employed nurses per 100,000 provincial population in 2010	Ministry of Public Health, Afghanistan
	Active medical doctors	Employed medical doctors per 100,000 provincial population in 2010	Ministry of Public Health, Afghanistan
	Active community health workers	Employed community health workers per 100,000 provincial population in 2010	Ministry of Public Health, Afghanistan
Health Facility Physical Capacity	Equipment functionality	A composite indicator which examines the availability and accessibility of basic required medical equipment; the indicator ranges from 0-100 where higher values approach optimal equipment capacity.	Balance Score Card Health Facility Assessments 2010
	Drug availability	A composite indicator which examines the availability and accessibility of important pharmaceutical products and vaccines on the essential drug list; the indicator ranges from 0-100 where higher values approach optimal drug availability capacity.	Balance Score Card Health Facility Assessments 2010
	Laboratory functionality	A composite indicator which examines the availability and accessibility of basic essential laboratory tests; the indicator ranges from 0-100 where higher values approach optimal laboratory capacity.	Balance Score Card Health Facility Assessments 2010
	Overall infrastructure	A composite indicator which examines the suitability of the health facility infrastructure such as heating, water source, etc; the indicator ranges from 0-100 where higher values approach optimal infrastructure.	Balance Score Card Health Facility Assessments 2010
	Convenient travel	Proportion of women age 15-44 years who report that traveling to the health facility was convenient for the current visit	Balance Score Card Health Facility Assessments 2010
	Distance to facility	Average (median) distance in kilometres to the health facility for the current visit as reported by women age 15-44 years	Balance Score Card Health Facility Assessments 2010
	Time to facility	Average (median) time in minutes to the health facility for the current visit as reported by women age 15-44 years	Balance Score Card Health Facility Assessments 2010

Health Care Visit Characteristics	Time to being seen	Average (median) waiting time in minutes to being seen by health care professional for the current visit as reported by women age 15-44 years	Balance Score Card Health Facility Assessments 2010
	Registration fee	Proportion of women age 15-44 years who paid a registration/consultation/doctor fee for the current visit	Balance Score Card Health Facility Assessments 2010
	Overall fair cost	Proportion of women age 15-44 years who felt the overall cost to the facility was fair for the current visit (i.e. score of 4 or 3 where 1=strongly disagree, 2=disagree, 3=agree, 4=strongly agree)	Balance Score Card Health Facility Assessments 2010
	Privacy	Proportion of women age 15-44 years who felt they had enough privacy for the current visit (i.e. score of 4 or 3 where 1=strongly disagree, 2=disagree, 3=agree, 4=strongly agree)	Balance Score Card Health Facility Assessments 2010
	Overall patient satisfaction	Proportion of women age 15-44 years who felt their overall visit was satisfactory (i.e. score of 4 or 3 where 1=strongly disagree, 2=disagree, 3=agree, 4=strongly agree)	Balance Score Card Health Facility Assessments 2010
	Quality of care	An indicator of the patient's perception of the quality of care they received on an index from 0-100 where higher numbers indicate better quality.	Balance Score Card Health Facility Assessments 2010
	Staff adequate training	An indicator of facility staff having met a minimum set of training guidelines on an index from 0-100 where higher numbers indicate optimal training.	Balance Score Card Health Facility Assessments 2010
Client and Community	Community involvement/decision making	A composite indicator made up of 5 items that measure the involvement of community and their level of decision making in the delivery of services; ranging from 0-100 where higher number indicate more involvement.	Balance Score Card Health Facility Assessments 2010
Demographics and Context	Maternal age	Average age (years) of mother of the index child surveyed	Multiple Indicator Cluster Survey, 2010/11
	Maternal literacy	Proportion of mothers of the index child who have received some form of formal education	Multiple Indicator Cluster Survey, 2010/11
	Low income	Proportion of the population in the lowest wealth index quintile, as ranked on a scale of poorest (lowest) to wealthiest (highest) using information on household assets	Multiple Indicator Cluster Survey, 2010/11
	Rurality	Proportion of the population living in rural areas in 2010	Central Statistics Organization, Afghanistan
	Distance to paved road	Average (mean) distance in kilometres to nearest paved road in 2010	Central Statistics Organization, Afghanistan
	Change in antenatal care	Antenatal care: Proportion of women who consulted skilled health personnel at least once during pregnancy Change in antenatal care: Delta difference between baseline (2003) and endline (2010) antenatal care prevalence estimates.	Multiple Indicator Cluster Survey, 2003/04 Multiple Indicator Cluster Survey, 2010/11
Mobile Phone Coverage	Mobile phone towers	The number of cell phone towers per 100,000 provincial population in 2012 *data for pre-2012 was not available	Afghan Telecommunications Regulatory Authority, Ministry of Communication and Information Technology of Afghanistan
	Mobile phone tower inequitable spread	The inequitable distribution of mobile phone towers across the province in 2012. A single value between 0-1 was estimated where 0 indicated equal spread across the province.	Afghan Telecommunications Regulatory Authority, Ministry of Communication and Information Technology of Afghanistan
	Ratio of mobile phone tower/inequitable spread	A single ratio calculated as mobile phone tower rate divided by inequitable spread was created to measure equitable and accessible cell phone service throughout the province; higher values indicate higher accessibility and equity.	Afghan Telecommunications Regulatory Authority, Ministry of Communication and Information Technology of Afghanistan

Casualties and Security	Deaths	All deaths due to weapons/unexploded ordinance (rifles, pistols, knives, mines, bombs, grenades, rockets, …) regardless whether the injury was intentional or not, and regardless of the body part injured per 100,000 provincial population in 2010	Health Management Information System, Ministry of Public Health, Afghanistan
	Deaths and wounded	All deaths and injuries/trauma due to weapons/unexploded ordinance (rifles, pistols, knives, mines, bombs, grenades, rockets, …) regardless whether the injury was intentional or not, and regardless of the body part injured per 100,000 provincial population in 2010	Health Management Information System, Ministry of Public Health, Afghanistan
	Death dirty war index	The number of war-related deaths (as described above) divided by total casualties (deaths + wounded) multiplied by 100	Health Management Information System, Ministry of Public Health, Afghanistan
	Coalition fatalities	The number of total coalition fatalities (United States, UK, Other) incurred in each province in 2010	Operation Enduring Freedom: iCasualties
	Security incidents	The frequency of armed opposition group attacks (specifically Taliban, Haqqani network, Hezb-i-Islami Hekmatyar, Lashghar-e-Taihba) per province in 2010	The Afghanistan NGO Safety Office 2010 Report

Web Table 2: The Chronology of Recent MOPH Policy and Strategies in Afghanistan

Name of the Policy / Strategy	When developed	Duration	Who developed	Content
Basic Package of Health Services (BPHS)	Developed: 2003 Revisions: 2005, 2010	Ongoing	MOPH with supports of stakeholders	- Maternal and newborn care - Child health and immunization - Public nutrition - Communicable disease treatment and control - Mental health - Disability and physical rehabilitation services - Regular supply of essential drugs
National Reproductive Health Strategy for Afghanistan	Developed: 2003 Revisions: 2004	2003-2005	General Directorate of Health Care and Promotion Women's and Reproductive Health, Reproductive Health Taskforce, MOPH	- Family planning - Improve access to quality family planning services - Strengthen information, education, and behavior change communication [IEC/BCC] for birth spacing - Create an enabling environment and for utilization of family planning - Safe motherhood - Improve the coverage, utilization, and quality of emergency obstetric care - Improve the coverage of skilled attendance at birth - Ensure effective antenatal and postnatal care for all women
National Medicine Policy	2003	Ongoing	MOPH	- That all medicines available in the country, whether of domestic or foreign origin, are effective, safe and of good quality, and are fairly priced. - That medicines are used in a proper manner, appropriate to the needs of the patient - That all reasonably necessary medicines are accessible to patients at all times and in all parts of the country - That a patient needing a medicine shall not be deprived of it because of any unreasonable financial barrier
Public Nutrition Policy and Strategy	2003	2003-2006	Public Nutrition department of MOPH	- Ensure that the prevalence of acute malnutrition or wasting (< -2 z-score, weight for height), is reduced to and remains below 5% for all children less than five years old throughout the year. - Ensure that more than 90% of households have access to iodized salt throughout the country. - Prevent and control outbreaks of micronutrient deficiency diseases, particularly scurvy. - Improve nutritional status of women of childbearing age and reduce risk of maternal mortality and low-birth weight (LBW). - Increase prevalence of exclusive breastfeeding for infants 0-6 months from about 30% to over 60%. - Reduce mortality associated with severe malnutrition, specifically in relation increasing access to treatment facilities and to reducing case-fatalities to acceptable targets within treatment facilities for severe malnutrition. - Increase knowledge, awareness, skills and capacity in public nutrition among the general population as well as among all nutrition related service providers including those

Name of the Policy / Strategy	When developed	Duration	Who developed	Content
				involved in agriculture, health, rural development, economic development, trade.
National Child Health Policy	2004	2004-2006	General directorate of health care and promotion, department of child and adolescent health, MOPH; with support of WHO	- Improving neonatal health - Infant and childhood illnesses - IMCI - Growth, development, prevention and promotion - Nutrition - Exclusive breastfeeding - Complementary feeding - Micronutrient supplementation - Immunization - School health - Child rights and protection
National Health Policy 2005-2009 and National Health Strategy 2005-2006	2005	2005-2009	MOPH	- A guide to the overall context within which all health and health-related work for accelerating implementation should be developed and implemented over the next five years, 2005-2009.
Public Relation Strategy	2005	2005-2009	MOPH-Public relation directorate with support from MOPH stakeholders	- Media relations to address visibility and relations with the public o Technical and Research o Demand side PR - Working with the executive public: o government o political figures o parliamentarians o relevant cabinet ministries, finance, religious, education - Working with the intermediary public o religious leaders o consumers/beneficiaries o employees of MOPH o interest groups (Chamber of commerce, traders and private sectors) o donors and developmental partners o media (relation with print and broadcast media), press releases, press - Statements, provide food for media, speaking engagements (speeches), making film, slides etc. o civil society and NGOs o consumers' rights associations
National Salary Policy	2005	Ongoing	MOPH	- To standardize the salary of the Non-Governmental Organizations and Ministry of Health Strengthening Mechanism Working in the Afghan Health Sector
National Reproductive Health strategy	2006	2006-2009	Reproductive Health Task Force, Safe Motherhood Unit, MOPH	- Maternal and Newborn Health - Birth Spacing and Family Planning - Gender and Reproductive Health Rights

Name of the Policy / Strategy	When developed	Duration	Who developed	Content
Afghanistan National Strategic Framework for HIV/ AIDS	2006	2006-2010	MOPH-National HIV/ AIDS and STI Control Programme with support of stakeholders	- To strengthen strategic information to guide policy formation, programme planning and implementation. - To gain political commitment and mobilize resources necessary to implement the national HIV/ AIDS/ STI strategy. - To ensure development and coordination of a multi-sectoral HIV/ AIDS response and develop institutional capacity of all the sectors involved. - To raise public awareness on HIV/ AIDS and STI prevention and control, ensure universal access to behavior change communication on HIV, especially targeting vulnerable and at risk groups - To ensure access to prevention, treatment and care services for high-risk and vulnerable populations - To strengthen the health sector capacity to implement an essential package of HIV/ AIDS prevention, treatment and care services within the framework of BPHS and EPHS
Human Resource Policy	2006	Ongoing	MOPH-Human resource department with support of stakeholders	- To ensure the appropriate production and availability of suitably qualified, appropriately skilled and motivated human resources for health. - These human resources should be of pre-defined disciplines that are appropriate for provision of the defined Basic Package of Health Services (BPHS), the Essential Package of Hospital Services (EPHS) and other health services which are of acceptable quality at affordable cost to the community. They also need to be equitably distributed. -
National Malaria Strategic Plan	2006	2006-2010	MOPH -National Malaria and Leishmaniasis Control Programme with support from stakeholders	- To contribute to the improvement of the health status in Afghanistan through prevention of morbidity and mortality associated with malaria - To reduce malaria morbidity by 50% by the year 2010 - To reduce malaria mortality by 80% by the year 2010
Health and Nutrition Sector Strategy	2007	2007-2013	MOPH with support from stakeholders	- To reduce maternal and newborn mortality - To reduce under 5 mortality and improve child health - To reduce the incidence of communicable diseases - To reduce malnutrition - To develop the health system
National EPI Policy	2007	2007-2010	MOPH-National EPI department with support from stakeholders	- To achieve and sustain 90% coverage of childhood immunization of all antigens among under one years old children by the end of 2010. - To achieve and maintain 80% coverage of TT2+ among women of childbearing age (15-45 years), eliminate tetanus in line with global goal by the end of 2010. - To interrupt poliovirus transmission by end of 2008 and sustain till global certification is achieved. - To reduce measles morbidity rate by 90% from the pre-immunization level (base line data

Name of the Policy / Strategy	When developed	Duration	Who developed	Content
				from 2001) by end of 2010. - To improve injection safety and provide 100% safe immunization injections.
National Policy for Healthy School Initiative	2006	2006-2008	Islamic Republic of Afghanistan	- To improve both health and education of school children, young people and school staff in 20% of the schools in priority provinces within the period of 2006-2008. o Aimed at providing quality education through provision of a health and hygiene and hygiene enabling environment in which children perform to the best of their quality, which include all components of school health; student's health, health subjects in school curricula and healthy environment
National Strategy for Healthy School Initiative	2007	Ongoing	Islamic Republic of Afghanistan; Ministry of Education (MOE), MOPH, and Ministry of Rural Rehabilitation and Development (MRRD)	- To ensure that all children have access to quality education in a safe and healthy learning environment. o To ensure relevant curriculum, sufficient and adequate teaching learning supplies, and highly motivated and professionally capable teachers and school administrators.
TB/HIV Coordination Policy	2008	2008-2013	MOPH with support from stakeholders	- To set up a coordination mechanism for police and prisons authorities on health issues at the central and provincial level - Enhancing the surveillance system for TB/HIV in the first degree provinces - To reduce the risk of TB in HIV positive persons
National Malaria Strategic Plan	2008	2008-2013	MOPH- General Directorate of Preventive Medicine with support from stakeholders	- To reduce malaria morbidity by 60% by the year 2013 (baseline 19 cases per 1000 population, 2007 data) - To reduce malaria mortality by 90% by the year 2013 - To reduce the incidence of falciparum malaria to sporadic cases by the end of 2013 with a vision to interrupt transmission of PF
National Mental Health Strategy	2009	2009-2014	MOPH-General directorate of Preventive Medicines with support from stakeholders	- Service strengthening o Introduction and support for the provision of preventive, gatekeeper, and maintenance initiatives (monitoring, school health, health promotion, psychological first aid, working with community organizations, and non -health gatekeeper organizations such as police and other social services) o Accessible and strengthened provision of primary care interventions and services (assessment, counseling, first line treatment, chronic care, referral, and rehabilitation) - Service support and quality o Strengthen national strategic interventions with MH&DRD support, oversight of the national strategy, intersectoral collaboration, monitoring of strategy indicators and targets, providing direction and support for strategic implementation, development of standards and quality improvement strategies, project monitoring, research and needs identification, legislation and regulate on, development of meaningful terms of reference (ToR) for the MH&DRD, and working according to these agreed ToR

Name of the Policy / Strategy	When developed	Duration	Who developed	Content
				○ Ensure the provinces develop and implement strategic plans consistent with the NMHS - Strengthen provincial support by oversight of implementation, including service delivery monitoring and quality improvement, participatory intersectoral strategic planning and collaboration (including with police, prisons, education, private sector, and other stakeholders), and monitoring compliance with regulations
National Policy for Private Health Sector	2009	2009-2014	MOPH-General directorate of Policy and Planning with support of stakeholders	- To reduce any harm or risk to consumers or the general public from the quality of services and products provided by the private sector; - To increase the quantity (type and number) of essential health services and products provided by the private sector; - To increase positive health outcomes through the utilization of essential quality products produced and services provided; and - To contribute to a competitive marketplace, which may reduce the price of private sector health services and products, thereby increasing access to the same.
National Public Nutrition Policy and Strategy	2009	2009-2013	MOPH-General directorate of Preventative medicine	- To reduce nutrition related mortality amongst mothers and children by protecting and promoting healthy nutrition for all Afghans, and by preventing chronic malnutrition and associated micronutrient deficiency disorders. - To increase access to and utilization of quality preventive and curative nutrition services provided at community level and through health facilities.
Community-Based Health Care (CBHC) Policy and Strategy	2009	2009-2013	MOPH- Community-based Health Care department with support of stakeholders	- To expand coverage of CBHC services to 90% of the population of Afghanistan by the year 2013. - To improve the quality of health care (curative, preventive) services at the community and household level. - To strengthen the capacities of communities to initiate and implement activities that promotes their own health. - To support its partners in building the capacities at all levels of the health system for further strengthening of CBHC.
National Child and Adolescent Health Policy and Strategy	2009	2009-2013	MOPH department of child and adolescent health	- Skilled or improved attendance during pregnancy, delivery and immediate post-partum - Neonatal care - Breastfeeding and complementary feeding - Immunization of mothers and children - Micronutrient supplementation - IMCI - Birth spacing - Health at school - Adolescent health consideration
National Reproductive Health Strategy (Draft)	2009	2010-2015	Reproductive Health Task Force, MOPH	- Maternal and Neonatal Health - Improve quality of MNH services, including EmONC - Improve monitoring and evaluation of MNH services and use of data - Family Planning and Birth Spacing (FP/BS) - Sexually Transmitted Infections - Infertility - Obstetric Fistula

Name of the Policy / Strategy	When developed	Duration	Who developed	Content
				- Breast and Cervical Cancers - RH in Emergency Situations - Gender Issues - Nutrition - IEC/BCC - Quality Assurance in RH Services - RH Research - RH and the Private Sector
Hospital Policy for Afghanistan's Health System	2004	Ongoing	MOPH	- The hospitals of Afghanistan will provide a comprehensive referral network of secondary and tertiary health facilities.
Hospital Sector Strategy	2011	Ongoing	MOPH-Hospital Reform Project with support of stakeholders	- Hospital Autonomy will be introduced on a phased basis - All hospitals in Afghanistan will eventually become fully autonomous - National and specialty hospitals will be the first to become autonomous on a phased based - Hospital Reform project hospitals will begin the transition to autonomy on a phased basis as appropriate according operational status
MOPH Strategy Plan	2011	2011-2015	MOPH with support of stakeholders	- Improve the nutritional status of the Afghan population - Strengthen human resource management and development - Increase equitable access to quality health services - Strengthen the stewardship role of MOPH and governance in the health sector - Improve health financing - Enhance evidence-based decision making by establishing a culture that uses data for improvement - Support regulation and standardization of the private sector to provide quality health services - Support health promotion and community empowerment - Advocate for and promote healthy environments - Create an enabling environment for the production and availability of quality pharmaceuticals
National Reproductive Health Strategy	2012	2012-2016	Reproductive Health Task Force, MOPH	- Maternal and neonatal health - Birth spacing and family planning - Sexually transmitted infection and HIV/AIDS - Approaches to breast and cervical cancer - Approaches related to other issues: - Obstetric fistula - Infertility - RH in Emergency Situations - Gender Issues - Nutrition - IEC/BCC

Name of the Policy / Strategy	When developed	Duration	Who developed	Content
				- Quality Assurance in RH Services - RH Research - RH and the Private Sector
National Strategy on Healthcare Financing and Sustainability	2009	2009-2013	MOPH- Health Economics and Financing Directorate with support of stakeholders	- Health Economics and Financing Directorate Capacity Development - Support to Mapping of Health Expenditure Flows - Exploring Demand and Supply-side Financing - Financial Sustainability, Revenue Collection, Inequity Reduction and Advancing - Risk Pooling Mechanisms - Support to Efficient Resource Use and Allocation - Enhance Aid-Effectiveness in Healthcare Financing
Health Financing Policy 2012-2020	2012	2012-2020	MOPH- Health Economics and Financing Directorate with support of stakeholders	- Identifying ways to mobilize domestic resources through taxation and prepayment mechanisms to provide defined health care - Increasing the efficiency and equity of public spending through different mechanisms including public-private partnerships and better targeting of beneficiaries of public funding - Improving risk pooling through health financing schemes including social health insurance - Securing more sustainable external funding for defined functions - Enhancing aid effectiveness and re-aligning of existing resources to ensure that allocations match health priorities and objectives
National HIV and AIDS Policy	2012	2012-2016	MOPH-Preventive Medicine Department with support of stakeholders	- To strengthen systems, services and programs for preventing HIV transmission, with a doucs on MARPs (Particularly IDUs) and vulnerable groups - To ensure facilities for early diagnosis are made widely accessible and adhere to global ethical standards - Make quality treatment, care and support services available and accessible to all PLHIV and those in need for these services - Create a supportive environment for effective implementation of the HIV program in the country
Harm Reduction Strategy for IDU and HIV/AIDS Prevention in Afghanistan	2005		HIV/AIDS Unit, MOPH; Demand Reduction Section, Ministry of Counter Narcotics (MOCN)	- To reduce the vulnerability of problem drug users and their families to HIV infection. - To reduce the vulnerability of problem drug users and their families to Hepatitis B, C and syphilis. - To reduce the risk of the spread of HIV and other blood borne diseases to the general population. - To provide services to IDUs that will reduce the risk of HIV transmission
Health Research Policy and Strategy for Afghanistan	2012	2012-2020	MOPH-Afghanistan National Public Health Institute (ANPHI) with support of stakeholders	- The overall goal of the health research policy is to create an enabling environment and build capacity for health research for developing evidence based policies, strategies and health program planning and management of health services in Afghanistan - Promote health research based on needs and priorities of health, nutrition and development. - Improve coordination for planning, implementation and use of research information. - Build the national capacity through institutional capacity development for health research, strengthening research resources and skills development. - Assist and advice all national and international researchers to follow the national

Name of the Policy / Strategy	When developed	Duration	Who developed	Content
				standards, principles and priorities. - Develop a guide for research department of MOPH to coordinate and manage multi-sectorial approach to research for health at the national and sub-national levels. - Develop human resources and their capacity building in planning, designing, conducting and reporting health research. - Enhance and promote utilization of research for evidence based policy formulation and analysis, improved decision making, and action. - Establish health research information management and dissemination. - Develop network of health research organizations and institutions at the national and international levels - Foster coordination and linkages between research resources, external and internal funding and donor coordination. - Establish committee for Ethics on Research on Human Subjects
National Priority Plan	2012	2012-2015	MOPH-Human Resource Development Cluster	- Improved and increased access to/availability of resources required to expand - delivery of acceptable and affordable health services to all Afghans - Increased capacity of the GIRoA to manage and improve the processes necessary - to deliver quality and indiscriminately health services to all Afghans - Improved health status of Afghans resulting from increased access to and expansion - of health services
National Gender Strategy	2012	2012-2016	MOPH-Gender Directorate with support of stakeholders	- Considering the Gender issues in all the MOPH projects and programs - Reviewing all the MOPH policies and strategies and ensuring the gender issues balanced in all of these documents - Working together with all the stakeholders to ensure male and female have adequate access to the health services without any discrimination and violence - Developing Gender based indicators for proper M&E

Web Table 3a

Maternal, neonatal and child deaths averted at various target coverage levels

	Baseline deaths (Year 2013)	Deaths prevented till 2025 at various target coverage levels		
		50%	75%	90%
Neonatal(<1 month)	55,817	17,590	31,817	46,719
Post neonatal (1-59 month)	89,867	45,703	70,799	82,930
Maternal	6,202	2,568	3,834	5,493

Web Table 3b

Maternal, neonatal and child deaths saved by intervention packages

Packages		50%	75%	90%
Optimizing maternal nutrition and care preconception and during pregnancy	Maternal	82	110	123
	Neonatal	2707	4007	4768
	Post-neonatal	367	479	528
Expanded antenatal care package	Maternal	389	525	588
	Neonatal	347	1300	1873
Child birth including maternal emergency obstetric care & immediate newborn care	Maternal	1701	2709	4382
	Neonatal	9907	18559	30914
Postnatal care (including community newborn and child care)	Neonatal	2242	3668	3924
Water, sanitation and hygiene interventions	Post-neonatal	9585	16104	19633
IYCF package	Neonatal	0	444	696
	Post-neonatal	8230	12062	13924
Expanded immunization package	Post-neonatal	16032	25289	30703
Case management	Maternal	397	491	491
	Neonatal	2386	3839	4543

	Post-neonatal	3784	8286	9591
Management of severe acute malnutrition	Post-neonatal	7705	8584	8584

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