Health and Healthcare in Afghanistan

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Introduction

Afghanistan has been politically unstable for more than forty years. Violent conflict has caused forced displacement, contributed to economic hardship, and affected the health of civilians. After the Allied invasion in 2001, the Afghanistan Reconstruction Trust Fund financed a nationwide programme, "System Enhancement for Health Action in Transition." Its aims were threefold: to improve access to basic health and nutrition services, to enhance performance management, and to foster community demand and ownership.

In the twenty years that followed, primary healthcare services, including emergency referrals, were contracted out to nongovernment providers in thirty-one of thirty-four provinces. Volunteers were trained as community health workers, and community health councils were set up. The Ministry of Public Health relied on efficiency considerations based on information collected routinely by the providers, and periodically by independent third parties, to decide whether to renew contracts or allocate funding to other bidders. Health indicators gradually improved, but with large disparities between rural and urban areas, and remaining poor compared to the rest of the world. Evidence of governance by national authorities and of community ownership was limited.

The victory of the Taliban over national military forces in August 2021 led to suspension of financial assistance from the World Bank, including funding for the Afghan health system. This article reviews the evolution of public health in Afghanistan in the late

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twentieth and early twenty-first century until 2021, and the connection between the changing political situation, healthcare, and health. It highlights the effects and limitations of external assistance to healthcare services during that time. The factors that contributed to the successes and failures of enhancing the health system in Afghanistan exemplify some of the challenges faced by the international community in transitional circumstances, including the interpretation of reported results and possible reasons for observed changes. The article should be of interest to analysts considering the implications of Afghanistan's domestic situation, in particular its fractured public services sector, for regional stability.

Healthcare and Health in Afghanistan before 2002

Afghanistan has been a United Nations member since 1946 and joined the World Health Organization at its creation in 1948. The University of Kabul was founded in 1946 and incorporated the faculty of medicine, established in 1932. The medical college at the University of Nangarhar in Jalalabad dates from 1963.[2] Although the last king of Afghanistan was credited with undertaking some economic development projects, using foreign funding, his reforms had little effect outside the capital, including in the healthcare sector.[3] There are no accurate data regarding the public health situation at the time, but available statistics suggest that child mortality before 1970 was 360/1000 live births or more. Between 1952 and 1972, 1 to 4 percent of the national budget was devoted to health, providing insufficient resources to cover the basic health needs of the population. Healthcare in rural areas was mostly limited to vertical control programmes related to tuberculosis, leishmaniasis, and malaria. Urban hospitals employed large numbers of doctors.[4]

[2] *Britannica*, s.v. "Afghanistan: Daily Life and Social Customs, accessed December 14, 2021, https://www.britannica.com/place/Afghanistan/Daily-life-and-social-customs.
[3] *Britannica*, s.v. "Mohammad Zahir Shah," accessed December 14, 2021, https://www.britannica.com/biography/Mohammad-Zahir-Shah.
[4] Lesley Strong, Abdul Wali, and Egbert Sondorp, "Health Policy in Afghanistan: Two Years of Rapid Change," EC PREP study, London School of Hygiene and Tropical Medicine, 2005.

After the Soviet invasion, many health professionals left the country and medical training programmes ceased.[5] Under the communist regime of the late seventies and eighties, 40 percent of medical doctors were female. As resistance against Soviet occupation increased, intense fighting caused severe damage to communal infrastructure in rural areas. During the interim coalition administration from 1992 to 1996, destruction mainly occurred in the cities, especially in Kabul, and people were displaced within the city and towards the countryside. Women continued to work in health facilities that remained operational. As the Taliban took hold, rural recovery was observed, with women participating in traditional ways in the economy. In the cities, while war-related physical abuse decreased, women's freedom was severely constrained, but they had the right to continue working in the health sector. At the same time, women could not be appointed as senior staff in foreign-run hospitals. Still, an edict restricting female healthcare in Kabul to only one hospital was amended, allowing women to be seen in special sections of all hospitals.[6]

In Peshawar, Pakistan, an Afghan university was opened in 1999, with support from the Commissioner for Afghan Refugees. Most students chose to study medicine.[7] Absolute health staff shortages in Afghanistan were worsened by an uneven distribution of the workforce, as well as gender imbalance.[8] While midwifery became a recognised profession in the country in the early twentieth century, there were only 467 midwives in 2002.[9]

[5] Library of Congress, Federal Research Division, "Country Profile Afghanistan," Washington, DC, August 2008, p. 7.
[6] Sultan Barakat and Gareth Wardell, "Capitalizing on Capacities of Afghan Women, Women's Role in Afghanistan's Reconstruction and Development," in Focus Programme on Crisis Response and Reconstruction, Working Paper 4, Recovery and Reconstruction Department, Geneva, ILO, December 2001.
[7] Nancy Hatch Dupree, "2000-02, Education: What's the Solution?" in *Afghanistan over a Cup of Tea*, Swedish Committee for Afghanistan, Stockholm, (2008): 76–77.
[8] Najibullah Safi et al., "Addressing Health Workforce Shortages and Maldistribution in Afghanistan," *Eastern Mediterranean Health Journal* 24, no. 9 (December 2018): 951–58.
[9] Trude Thommesen et al., "The Midwife Helped Me ... Otherwise I Could Have Died: Women's Experience of Professional Midwifery Services in Rural Afghanistan—A Qualitative Study in the Provinces Kunar and Laghman," *BMC Pregnancy Childbirth* 20, no. 140 (2020).

Under the 1996 to 2001 Taliban government, gender segregation of healthcare, the requirement that women must be accompanied by a close male relative, and the enforcement of an extreme dress code for women outside their home, added further restrictions to access for women and children.[10] International aid organisations and UN agencies were present in Afghanistan and engaged in the provision of health- and social services, negotiating with the Taliban, and adapting to the imposed limitations. Evidence that women's health, or access to healthcare, substantially worsened during this five-year period in comparison to the preceding decades is relatively limited, mainly referring to conditions in Kabul and contested by contradictory statements.[11] But although different sources had a different perspective on health and healthcare, they agreed that the Afghan population, especially women and children living in rural settings, needed urgent assistance in 2002.

By 2002, data on public health indicators released by WHO and UNICEF were dismal. The estimated maternal mortality ratio (MMR) of 1,700 pregnancy-related deaths per 100,000 live births was among the highest in the world. Infant mortality rate (IMR), calculating infant deaths before the first birthday, was estimated at 165 per 1000 live births.[12] The estimated child mortality rate (CMR) below five years of age was 255/1000 live births.[13]

The national incidence of tuberculosis (TB) was calculated at 278/100,000 inhabitants. TB was estimated to cause 15,000 deaths annually, with a higher burden among women than

[10] Physicians for Human Rights, "The Taliban's War on Women: A Health and Human Rights Crisis in Afghanistan," report, Boston, 1998, pp. 31–48, at https://www.peacewomen.org/sites/default/files/Health_TalibanWarWomen_PHR_1998_0.pdf.
[11] Abbas Faiz, "Health Care under the Taliban," *Lancet* 349, no. 9060 (1997): 1247–48; Hugh Reyburn et al., "Health Care under the Taliban," *Lancet* 349, no. 9069 (1997): 1916.
[12] Ronald Waldman and Homaira Hanif, "The Public Health system in Afghanistan," Issues Papers Series, Afghanistan Research and Evaluation Unit, 2002, found at https://areu.org.af/wp-content/areu_publications/2015/12/201E-Public-Health-System-IP.Print_.pdf
[13] Kavitha Viswanathan et al., "Infant and Under-Five Mortality in Afghanistan: Current Estimates and Limitations," *Bulletin of the World Health Organization*, April 2020, 576–83.

men.[14] An estimated 3 million malaria cases occurred in 2002.[15] Polio was a rare disease. Eleven cases of paralytic poliomyelitis were confirmed in 2001.[16] Information about HIV infections was scarce, with a few reported cases among injecting drug users.[17]

Population growth increased in the nineties, exceeding twenty million in 1999, from around ten million in 1965.[18] Severe drought, internal conflict, and economic sanctions during the 1990s had a negative impact on healthcare and on health, especially of women and children. At the end of the twentieth century, life expectancy at birth was 46 years.[19] Other development indicators were also worrying. The adult literacy rate among women was 19 percent.[20]

Healthcare and Health after 2002

By 2001, health system coverage outside urban areas strongly relied on international support for vaccination campaigns and communicable disease control programmes. Some aid organizations had been working from neighboring countries during the previous decades, delivering healthcare on a project basis.[21] A national health policy was needed. Infrastructure was grossly deficient. Health personnel was poorly trained to deal with community priorities, and there was no useful health information system.[22]

[14] Ibrahim M. Khan and Ulrich Laaser, "Burden of Tuberculosis in Afghanistan: Update on a War-Stricken Country," *Croatian Medical Journal* 43, no. 2 (2002): 245–47

[15] Michael K. Faulde et al., "Malaria Reemergence in Northern Afghanistan," *Emerging Infectious Diseases*, 13, no. 9 (2007): 1402–4.

[16] Alison Norris et al., "Crippling Violence, Conflict and Incident Polio in Afghanistan," *PLOS One* (March 2016).

[17] World Health Organization, "WHO Health Update Afghanistan, Situation Report," June 9, 2002, https://reliefweb.int/report/afghanistan/who-health-update-afghanistan-09-jun-2002.

[18] The World Bank. "Data. Population-Total Afghanistan," accessed October 11, 2021, https://data.worldbank.org/indicator/SP.POP.TOTL?locations=AF.

[19] Zulfiqur A. Bhutta and Hussein L. Dewraj, "Children of War, the Real Casualties of the Afghan Conflict," *British Medical Journal* 324, no. 7333 (February 2009): 349–52.

[20] The World Bank Group, "Country Partnership Framework for Islamic Republic of Afghanistan 2017–2020," October 2016, https://openknowledge.worldbank.org/handle/10986/25739.

[21] Swedish Committee for Afghanistan, "The Swedish Committee for Afghanistan Moves to Kabul after 21 years in Peshawar," News and Press Release, ReliefWeb, March 6, 2003. https://reliefweb.int/report/afghanistan/swedish-committee-afghanistan-moves-kabul-after-21-years-peshawar.

[22] Ronald Waldman and Homaira Hanif, "The Public Health system in Afghanistan," Issues Papers Series, Afghanistan Research and Evaluation Unit, 2002, https://areu.org.af/wp-content/areu_publications/2015/12/201E-Public-Health-System-IP.Print_.pdf.

The umbrella programme for the health sector "System Enhancement for Health Action in Transition" (SEHAT) was created as part of the reconstruction after the fall of the Taliban. It was funded by the World Bank, USAID, the European Commission, and other donors to the Afghanistan Reconstruction Trust Fund (ARTF). The ARTF, established in 2002 and managed by the World Bank, coordinated financing and channelled funding through the Ministry of Finance to the Ministry of Public Health (MOPH), with further disbursement managed by the latter's grants and contracts management unit. SEHAT continued until 2018, when it was renamed "Sehatmandi" (meaning "well-being") and payment of service providers was modified, based on the volume of eleven key services as reported by the providers.[23]

The objective of SEHAT was to increase the utilization and quality of health, nutrition, and family planning services. The first component, improving service delivery, intended to finance performance-based contracts to deliver a basic package of health services (BPHS). A preliminary resource assessment informed the elements of the services to be provided. The assessment confirmed that nongovernmental organisations (NGOs) delivered 80 percent of primary healthcare. The focus of the BPHS was on maternal and child health, nutrition, childhood vaccination, control of tuberculosis and malaria, mental health, disability services, and regular supply of essential drugs. While acknowledged as inaccurate, the available morbidity and mortality estimates were the baseline for service planning. As resources were limited, mental health and disability became second tier services, to be implemented where

[23] Christopher T. Andersen et al., "Improving Health Service Delivery in Conflict-Affected Settings: Lessons from a Nationwide Strategic Purchasing Mechanism in Afghanistan," *Journal of Global Health* 11, no. 04049 (July 2021), https://pubmed.ncbi.nlm.nih.gov/34326996/ accessed 07/01/2022. The key indicators were child morbidity, antenatal care, postnatal care, institutional delivery, Penta3 vaccination, tetanus toxoid vaccination, TB treatment, couple years protection (modern contraceptive use), growth monitoring, caesarean sections, and major surgery. Ministry of Public Health Performance Management Office, "Quarterly Performance Review Report Q1 2019," Islamic Republic of Afghanistan, 2019, https://moph.gov.af/sites/default/files/2019-08/Quarterly%20Performance%20Review%20Report_Q1%202019.pdf.

feasible.[24] Management was contracted out to nongovernmental partners in thirty-one provinces. In the three remaining provinces, provincial health authorities in place were "contracted in." An essential package of hospital services (EPHS) was added in 2005.[25]

The second component, strengthening the performance of the health system, aimed at bringing a performance management culture to the MOPH and other SEHAT stakeholders. Performance management in the MOPH relied on the capacity of the directorate of monitoring and evaluation and health information systems. A Balanced Score Card (BSC) became the main tool to report on progress until 2018. The sources of information collected on the BSC were direct observation, service user (exit) interviews, provider interviews, focus groups, and interviews with women in their home. The national health services performance assessment (NHSPA) of 2004 served as a baseline for subsequent assessments conducted by the MOPH and an independent third party. The 2004 NHSPA found deficiencies in care around childbirth, tuberculosis treatment monitoring, establishing community health councils, patient counselling, and in equipment and human resource inputs.[26] Subsequent health services performance surveys were conducted in 2006, 2012, 2016 and 2018.[27] Early improvements were registered in 2006 in several priority areas, but drug availability, provider knowledge, and health worker training scores remained unchanged or decreased.[28] After 2004 security progressively deteriorated, making project visits increasingly dangerous. By 2006 the Taliban

[24] William Newbrander et al., "Rebuilding Health Systems in Post-Conflict Countries: Estimating the Costs of Basic Services," *International Journal of Health Planning and Management* 22, no. 4 (2007): 1–18.
[25] William Newbrander et al., "Afghanistan's Basic Package of Health Services: Its Development and Effects on Rebuilding the Health System," *Global Public Health* 9 (S1) (July 2014): 6–28. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4136668/ accessed 25/12/2021
[26] David H. Peters et al., "A Balanced Scorecard for Health Services in Afghanistan," *Bulletin of the World Health Organization*85, no. 2 (2007): 146–51.
[27] Government of Afghanistan, National Statistics and Information Authority, Kabul and Royal Tropical Institute, the Netherlands, "Afghanistan Health Survey 2018," April 2019.
[28] Peter M. Hansen et al., "Measuring and Managing Progress in the Establishment of Basic Health Services: the Afghanistan Health Sector Balanced Scorecard," *International Journal of Health Planning and Management* 23, no. 2 (2008): 107–17.

had regrouped.[29] Access to healthcare was compromised in the most insecure regions. The monitoring system did not include these regions in data collection during health surveys.[30]

The third component, strengthening demand and community accountability for key health services, financed a range of communication activities to support the MOPH and service providers to be more responsive to community health needs.[31] The department of community-based healthcare in the MOPH, created in 2005, deployed Community Health Workers (CHWs) on a large scale, specifying a minimum of 40 percent female CHWs, and promoted Community Health Councils (CHCs), another element of the BPHS.[32] By 2015 the programme had trained and deployed 28,459 CHWs. Forty-nine percent were women, and many were illiterate. Trained and supervised by the organisation or government institution managing the BPHS in the provinces, they worked in the community and managed the health posts.[33] Health posts, usually established in a room in a village house, were the first level of community care, ideally managed by one male and one female community health worker. Health posts were not counted as health facilities. Drop-out of CHWs was below 5 percent, a low rate considering the voluntary nature of the position.[34] Thirty-four percent of surveyed communities with a functioning health facility had active CHCs in 2007.[35]

The World Bank also supported the National Solidarity Programme (NSP), which ran from 2003 until 2016. The NSP focused on rural areas and set up Community Development

[29] Special Inspector General for Afghanistan Reconstruction, "The Risk of Doing the Wrong Thing Perfectly: Monitoring and Evaluation of Reconstruction Contracting," SIGAR, Arlington, VA, July 2021.
[30] Alexandra Frost et al., "An Assessment of the Barriers to Accessing the Basic Package of Health Services (BPHS) in Afghanistan: Was the BPHS a Success?" *Global Health* 12, no. 7 (2016).
[31] https://projects.worldbank.org/en/projects-operations/project-detail/P160615.
[32] Anbrasi Edward et al., "Enhancing Governance and Health System Accountability for People Centered Healthcare: An Exploratory Study of Community Scorecards in Afghanistan," *BMC Health Services Research* 15, no. 299 (2015).
[33] Said A.M. Najafiza, Ronald Labonté, and Yvy L Bourgeault, "Community Health Workers of Afghanistan: A Qualitative Study of a National Program," *Conflict and Health* 8, no. 26 (2014).
[34] Anbrasi Edward et al., "Toward Universal Coverage in Afghanistan: A Multi-Stakeholder Assessment of Capacity Investments on the Community Health Worker," *Social Science and Medicine* 145 (2015): 173–83.
[35] David H. Peters et al., "A Balanced Scorecard for Health Services in Afghanistan," *Bulletin of the World Health Organization* 85 (2007): 146–51.

Councils (CDCs). The initiative was followed in 2017 by the Citizens' Charter, including urban areas.[36] The CHCs were separate from the CDCs.[37]

The ARTF estimated that the CMR was 191/1000 live births in 2007.[38] The UN estimate of the MMR for the year 2007 was 1090/100,000 live births.[39] In 2010 the Afghanistan Mortality Survey reported that the MMR had dropped to 327/100,000 live births. According to the same source, IMR had fallen to 77/1000 live births and CMR to 97/1000 live births.[40] Citing the 2010 figures, experts investigating the effect of the BPHS on the health system stressed that they would not attempt to establish a causal relationship between the BPHS and health outcomes.[41] A survey conducted for the International Committee of the Red Cross in the same period concluded that half the population had little or no access to basic health services.[42] The international NGO Médecins Sans Frontières (MSF), specialized in emergency healthcare, claimed in 2010 that the co-optation of humanitarian aid by the international coalition had dire consequences for the population.[43]

A multi-indicator cluster survey (MICS) took place in 2010–11 and was published in 2013, endorsed by the Afghan government and UNICEF. Based on the responses to this household survey, CMR was 102/1000 and IMR was 74/1000.[44] Another household survey in

[36] Jasmina Bhatia, Naseem Jareer, and Ross McIntosh, "Community-Driven Development in Afghanistan: A Case-Study of the National Solidarity Programme in Wardak," *Asian Survey* 58, no. 6 (2018): 1042–66.
[37] David J. Katz, "Community-Based Development in Rural Afghanistan: First, Assume a Community," *Peaceworks* no. 127 (2017).
[38] "Afghanistan Reconstruction Trust Fund: An Overview," accessed December 18, 2021, https://www.artf.af/artf-overview.
[39] WHO, UNICEF, UNFPA, World Bank Group, and the United Nations Population Division, "Trends in Maternal Mortality 2001–2017," WHO, Geneva, 2019. https://data.worldbank.org/indicator/SH.STA.MMRT?locations=AF.
[40] Afghan Public Health Institute, Ministry of Public Health (APHI/MoPH) [Afghanistan], Central Statistics Organization (CSO) [Afghanistan], ICF Macro, Indian Institute of Health Management Research (IIHMR) [India] and World Health Organization Regional Office for the Eastern Mediterranean (WHO/EMRO) [Egypt], "Afghanistan Mortality Survey 2010," Calverton, MD: APHI/MoPH, CSO, ICF Macro, IIHMR and WHO/EMRO, 2011.
[41] William Newbrander et al., "Afghanistan's Basic Package of Health Services: Its Development and Effects on Rebuilding the Health System," *Global Public Health* no. 9 (2014): 6–28.
[42] IPSOS and ICRC, "Our World. Views from the Field," Afghanistan opinion survey, ICRC Geneva, 2009.
[43] Michiel Hofman and Sophie Delaunay, "Afghanistan, a Return to Humanitarian Action," MSF, Switzerland, March 2010.
[44] Central Statistics Office and UNICEF, Multiple Indicator Cluster Survey, 2013,

urban Kabul and in rural Badakhshan in 2011 registered a large decrease in mortality, including maternal deaths, especially in Kabul, where MMR was 166 (confidence interval: 63–270). The MMR in Badakhshan province was 713 (confidence interval: 553–873).[45]

A Demographic and Health Survey (DHS) was conducted in 2015–16.[46] For the five-year period preceding the survey, the estimated IMR was 45/1000 live births, and the CMR was 55/1000 live births, with higher rates in rural and lower rates in urban areas. The DHS conclusion was that under-five mortality (CMR) had declined since the 2005 estimate of 87 deaths/1000 live births. According to the DHS survey, the results of which were published in 2017, the MMR was 1291 (confidence interval:1071–1512).[47] Between 2010 and 2015, 51 percent of deliveries took place at home. One-third of deliveries were assisted by a traditional birth attendant and 15 percent by a friend or relative. Only 3 percent of all births were by caesarean section.[48]

The 2018 WHO country cooperation strategy document raised doubts about the 2015 DHS data, suggesting an overestimation of maternal mortality and underestimation of child mortality. Official WHO key health indicators were 60.5/1000 live births for the CMR in 2019, and 638/100,000 live births (confidence interval 427–1010) for MMR in 2017.[49]

The Dutch Royal Tropical Institute implemented the 2018 Afghanistan Health Survey as a third-party evaluator to SEHAT. Reporting the results, they refrained from supplying any figures on maternal mortality, due to suspected underreporting. This household survey found a CMR of 50/1000 in the five preceding years, compared to 69/1000 live births in the previous

https://mics-surveys-prod.s3.amazonaws.com/MICS4/South%20Asia/Afghanistan/2010-2011/Final/Afghanistan%202010-11%20MICS_English.pdf

[45] Linda Bartlett et al., "Progress and Inequities in Maternal Mortality in Afghanistan (RAMOS II): A Retrospective Observational Study," *Lancet, Global Health* 5, no. 5 (2017): E545–E555.

[46] Central Statistics Organization, Ministry of Public Health, the DHS program, and ICF, "Demographic and Health Survey," 2017, available at https://reliefweb.int/sites/reliefweb.int/files/resources/afdhs_2015.pdf.

[47] Demographic and Health Survey, fact sheet, 2017.

[48] Ibid., 250.

[49] Global Health Observatory, WHO, accessed September 23, 2021, https://apps.who.int/gho/data/node.cco.ki-AFG?lang=en.

ten to fourteen years. Childhood vaccination rates, including mothers' recall as well as vaccination records, had reportedly improved by 30 percent, except for measles vaccination. IMR was 41/1000 live births.[50]

The UN Inter-Agency Group for Child Mortality Estimation developed estimates for the period 1962 to 2019. They computed that CMR had dropped from 254/1000 live births in 1978 to 125/1000 in 2001, to 65/1000 in 2017 and to 60/1000 in 2019.[51]

In the first nine months of 2019 the number of recorded injuries among civilians increased to seventy-three thousand, nearly 30 percent more than in 2018. Many injured were permanently disabled.[52] In the first six months of 2019, due to a sharp increase in US airstrikes, for the first time Afghan government and US operations caused more civilian deaths than the Taliban.[53]

Nutrition surveys reported 8.7 percent global acute malnutrition (GAM, weight-for-height below two standard deviations of median reference value) among under-five children in 2004, increasing to 9.5 percent in 2013, a situation classified as "poor" according to WHO standards. The 2013 survey also found that 9.2 percent of girls and women aged fifteen to forty-nine years were undernourished (Body Mass Index below 18.5 kg/m^2). The Afghanistan Health Survey in 2018 recorded five percent GAM among children below the age of five, thus suggesting a large improvement, reaching an acceptable nutritional status over the previous five years.[54]

Using assessment data from surveys in 2019, the United Nations Humanitarian Needs Overview for 2020 noted that food insecurity exceeded the emergency threshold in twenty-five

[50] Government of Afghanistan, National Statistics and Information Authority, and Royal Tropical Institute, the Netherlands, "Afghanistan Health Survey 2018," April 2019, https://www.kit.nl/wp-content/uploads/2019/07/AHS-2018-report-FINAL-15-4-2019.pdf.
[51] https://data.worldbank.org/indicator/SH.DYN.MORT?locations=AF.
[52] OCHA, "Humanitarian Needs Overview," December 2019.
[53] Human Rights Watch, "Afghanistan, Events of 2019," *World Report 2020*, accessed October 13, 2021, https://www.hrw.org/world-report/2020/country-chapters/afghanistan.
[54] Government of Afghanistan, National Statistics and Information Authority, Royal Tropical Institute, the Netherlands, "Afghanistan Health Survey 2018."

out of thirty-four provinces. It was estimated that 27 percent of under five children would suffer severe acute malnutrition in 2020. The alarming situation was partly attributed to prolonged drought in 2018–19.[55]

The number of health facilities able to detect TB and offer directly observed treatment increased progressively over the years. In 2016, the Eastern Mediterranean Regional Office of WHO (EMRO) estimated there were 65,000 new cases and 11,000 deaths caused by the disease. In 2017 EMRO reported that 46,406 new cases were enrolled on treatment. According to the World Bank, the incidence of TB was 189/100,000 in 2018 compared to 265/100,000 in Pakistan.[56] In 2021 WHO estimated an average TB incidence of 109/100,000 population in the Eastern Mediterranean region.[57]

The Asia-Pacific Leaders Malaria Alliance reported 424,700 malaria cases in Afghanistan in 2018, of which 173,000 were confirmed.[58] The online data platform "knoema" cited 29 new notified cases per 100,000 population in 2018, down from 37.6/100,000 in 2004.[59] For people with disabilities, perceived access to healthcare decreased between 2005 and 2013. Possible reasons were absence of transportation, lack of paved roads, distance to clinics, and negative attitudes of service providers. Moreover, mental health and disability were second tier priorities at the start of the BPHS.[60]

In 2018 there were 150 hospitals for a total of 3135 health facilities. The number of hospital beds per 1000 population slightly increased from 0.3 in 2000 to 0.4 in 2018.[61] There

[55] UNOCHA, "Humanitarian Needs Overview, Afghanistan," December 2019, https://reliefweb.int/report/afghanistan/afghanistan-humanitarian-needs-overview-2020-december-2019.
[56] WHO, "Global Tuberculosis Report," World Bank, Data, accessed October 22, 2021, https://data.worldbank.org/indicator/SH.TBS.INCD?locations=AF.
[57] WHO, EMRO, "Stop Tuberculosis," accessed October 22, 2021, http://www.emro.who.int/entity/tuberculosis/index.html.
[58] www.aplma.org/countries/afghanistan, accessed November 20, 2021.
[59] https://knoema.com/atlas/Afghanistan/topics/Health/Risk-factors/Malaria-cases, accessed July 1, 2022.
[60] Trani Jean-Francois et al., "Assessment of Progress towards Universal Health Coverage for People with Disabilities in Afghanistan: A Multi-Level Analysis of Repeated Cross-Sectional Surveys," *Lancet Global Health* 5, no. 8 (2017): E828–E837.
[61] World Bank, IBRD, IDA, "Data," accessed October 29, 2021, https://data.worldbank.org/indicator/SH.MED.BEDS.ZS?locations=AF.

were 17,297 active health posts.[62] Afghanistan had 2.5 doctors and 5 nurses per 10,000 population in 2010. The ratio was 3.5 doctors and 5.2 nurses per 10,000 population in 2018, when almost half the workforce was employed by contracted service providers, or NGOs with external funding.[63] The global averages are 13 doctors and 20 nurses per 10,000 population.[64] Four thousand six hundred midwives had been trained with SEHAT funding by 2014 but the rural retention rate of midwives was relatively low.[65]

The effects of the COVID-19 pandemic on health and healthcare capacity became noticeable in early 2020. The UN estimated that the epidemic caused a 30 to 40 percent reduction in access to essential services.[66] The number of reported cases on February 14, 2021, was 55,518 and 2428 deaths were registered.[67] In March 2021 the World Bank approved $113 million additional funding for COVID-19 vaccination efforts in Afghanistan.[68]

A shortage of personal protective equipment led to suspension of polio vaccination between March and July 2020. The reported number of paralytic polio cases rose to thirty-four.[69] Afghanistan became one of the last countries in the world to report continued transmission of wild polio virus.

Analysis of the 2002–2020 Findings

[62] http://www.emro.who.int/afg/programmes/health-system-strengthening.html.
[63] WHO Eastern Mediterranean Regional Office, "Health Workforce," accessed January 7, 2022, http://www.emro.who.int/entity/statistics/statistics.html.
[64] Home Office, Country Policy and Information Note, "Afghanistan: Medical Treatment and Healthcare," London, October 2021.
[65] United Nations Population Fund (UNFPA) Country Office Afghanistan, "State of Afghanistan's Midwifery," 2014.
[66] World Health Organization, "Afghanistan Strategic Situation Report Covid 19," OCHA, no. 76 (September 2020), https://reliefweb.int/report/afghanistan/afghanistan-strategic-situation-report-covid-19-no-76-13-september-2020.
[67] The World Bank, "Additional Financing for the Afghanistan Covid-19 Emergency Response and Health System Preparedness Project (P176012)," March 2021.
[68] The World Bank, "Press Release SAR/2021," March 18, 2021, https://www.worldbank.org/en/news/press-release/2021/03/18/new-grants-to-spur-afghanistan-covid-19-vaccine-rollout.
[69] Human Right Watch, "Afghanistan," *World Report 2021*, accessed October 6, 2021, https://www.hrw.org/world-report/2021/country-chapters/afghanistan.

With the limited resources available in 2002, creating health posts and training CHWs and midwives were a quick and economic way of reaching the most disadvantaged among the population, especially in rural areas. Based on the results from consecutive surveys, public health analysts suggested that mortality among children aged less than five years fell by nearly 30 percent between 2003 and 2015.[70] This is consistent with a worldwide downward trend, and with improved access to basic elements of primary healthcare, such as treatment of diarrhoea and acute respiratory infections, and childhood vaccination. Variations in findings may be due to differences in methodology. Limited geographic coverage of retrospective household surveys because of security concerns may have biased the selection of informants towards those with better access to services. The reported rapid decline in child and maternal mortality during the first decade of the twenty-first century could also be partly linked to extremely pessimistic estimates from situation assessments before the start of SEHAT, when reliable data were unavailable.

By the end of the second decade of the twenty-first century, the CMR remained high compared to the rest of the world, with at least one child out of twenty live births dying before the age of five in 2019. In addition, the nutritional status of children reportedly worsened after 2018, putting the gains in child health at risk.

It is difficult to judge the level and relative contribution of various causes influencing the reduction in maternal mortality. Factors likely to result in improved survival included international economic assistance leading to better living conditions, a decreasing fertility rate, and better access to healthcare. The World Bank modeled retrospective estimate indicated a gradual decline since the 1960s, and an MMR of 638/100,000 live births in 2017. Comparatively, that figure was still higher than the average for many sub-Saharan countries.

[70] Gijs Walraven, Yasamin Yousofzai, and Shafiq Mirzazada, "The World Bank's Health Funding in Afghanistan," *Lancet* 398, no. 10306 (2021): 1128.

For example, the World Bank estimate of the MMR in 2017 in Côte d'Ivoire was 617/100,000 live births and the estimate for the DR Congo was 473/100,000 live births. In the UK, the MMR for the same year was 7/100,000 live births.[71]

As maternal death is a rare event, confidence intervals for MMR estimates are wide. The different methods used to measure MMR all have limitations. Registration of vital events is low in many parts of Afghanistan and surveys are the main source of information on births and deaths. Large population movements reduce the accuracy of the estimated number of live births.

The estimated fertility rate in Afghanistan was 4.3 in 2019, a considerable drop from the estimate of 7.4 in 2001. The figure remains high in comparison to neighbouring countries and is only slightly lower than sub-Saharan Africa with a 2017 estimate of 4.6.[72] High fertility compounds the risks related to pregnancy and childbirth. Modern contraceptives were made available as part of the BPHS, but their use remained relatively low, with 21.8 percent of currently married women reporting the use of any contraceptive method in 2010.[73]

Training of community midwives was included in NGO contracts. The focus of midwifery training was on monitoring pregnancy, facilitating normal childbirth, and referring problems in time for adequate professional care. To make rural deployment more attractive, communities were encouraged to select candidates, and graduates who chose to work in villages received generous incentives. In remote areas, criteria for enrollment were adapted to

[71] https://data.worldbank.org/indicator/SH.STA.MMRT, accessed December 9, 2021.
[72] The World Bank, IBRD, IDA, "Data," accessed December 12, 2021. The total fertility rate in a specific year is defined as the total number of children that would be born to each woman if she were to live to the end of her child-bearing years and give birth to children in alignment with the prevailing age-specific fertility rates. See https://data.worldbank.org/indicator/SP.DYN.TFRT.IN?locations=AF, accessed October 29, 2021.
[73] Mohammad H. Rasooly et al., "Uptake and Predictors of Contraceptive Use in Afghan women" *BMC Womens Health* 15, no. 9 (2015).

the local level of female education.[74] Despite these efforts, training of community midwives may have had a lower impact than intended.

Obstetric emergencies are mostly unforeseen, and basic health facilities were not equipped to manage complicated births beyond stabilizing the patient's condition before referral. At three percent, the proportion of births by caesarean section was much lower than the expected need, estimated to approach 10 percent worldwide.[75] Female obstetric surgeons were not always available at district hospitals, a factor influencing the decision to seek hospital care for women. While essential healthcare became legally free of user charges in 2008, insecurity, problems with transportation, and indirect costs related to the absence of a woman from her home, remained a concern. Also, many users were reluctant to rely on public services, believing that quality of care was low. Although the medical management of health problems was often identical or better in the public sector, such perceptions were enforced by the experience of long waiting times and low levels of provider empathy.[76]

Programmes to control TB (National Tuberculosis Control Programme) and malaria appear to have been successful at increasing access to diagnosis and treatment and at reducing incidence. The achieved results, especially regarding TB, suggest that the health system was functioning because these programmes were integrated in the BPHS. The reemergence of malaria around 2002 may have been influenced by returning refugees, while the subsequent reduction could have been linked to environmental control measures in rice-growing areas.[77]

[74] Ghulam F. Mansoor, Peter S. Hill, and Peter Barss, "Midwifery Training in Post-Conflict Afghanistan: Tensions between Educational Standards and Rural Community Needs," *Health Policy and Planning* 27, no. 1 (2012): 60–68.
[75] World Health Organization, "WHO Statement on Caesarean Section Rates," WHO/RHR/15.02.
[76] Frank Dorner and Lena Langbein, "Between Rhetoric and Reality: Access to Healthcare and Its Limitations," Afghanistan Analysts Network, December 2, 2014, https://www.afghanistan-analysts.org/en/reports/economy-development-environment/access-to-health-care-and-its-limitations.
[77] Michael K. Faulde et al., "Malaria Reemergence in Northern Afghanistan," *Emerging Infectious Diseases* 13, no. 9 (2007): 1402–4.

The private sector played an important role in provision of healthcare as well as the sale of pharmaceutical products. Public and private care often overlapped, with public practitioners seeing patients privately after hours, and public facilities prescribing medicine that was only available for sale at private pharmacies. Government regulation of the private sector was weak. Interdependence of the MOPH and SEHAT donors blurred the capacity for national governance of the public health sector.[78]

The extent of national stewardship until 2015 was questioned in the 2016–2020 MOPH strategy document which pointed out that the central level could not transfer knowledge and skills in public health to other levels if they had not demonstrated such capacity. The authors cited the findings of a 2015 health sector review and strategic plan assessment, claiming that the 2011–2015 strategic plan was not specific enough to be useful, and that many factors hindered its implementation. The realization of the 2016–2020 plan relied on security and macroeconomic stability, and stakeholder commitment, as well as good governance.[79] In retrospect, it will be difficult to assess the role of governance in any achievements, or lack thereof, during that period.

Evaluation of community ownership in the context of the BPHS was limited to the numbers of trained CHWs and existence of CHCs. Household surveys indicated that many users were wary of public services. While access to CHWs appeared to be good, the proportion of community members who reported consulting them was low.[80] The role of CHCs was sketchily defined as providing support to health-related activities in the community.

[78] Markus Michael, Enrico Pavignani, and Peter S. Hill, "Too Good to Be True? An Assessment of Health System Progress in Afghanistan, 2002–2012," *Medicine, Conflict and Survival* 29, no. 4 (2013): 322–45 2

[79] Islamic Republic of Afghanistan, "Ministry of Public Health. National Health Strategy 2016–2020, Sustaining Progress for Tomorrow and Beyond," 2016, afghanistan_mophstrategy2016-2020_final09september2016111201614508950553325325.pdf (who.int).

[80] Michael, Pavignani, and Hill, "Too Good to Be True?"

Representativeness was vague, with health facility staff and local dignitaries playing an important role in the selection of members.[81]

The Cost of Healthcare and Payment for Services

In 2001 the annual per capita Gross Domestic Product (GDP) was 114 USD, fifty dollars less than the year before. The reported total GDP for Afghanistan was 2.462 billion USD. [82] The World Bank estimate of total GDP for 2002 was 4.055 billion, indicating rapid economic growth.[83] Despite a continuing increase in total GDP, around half of the Afghan population was estimated to have a daily income below one US dollar in 2008.[84]

US health and nutrition assistance to Afghanistan in 2004 was around 100 million USD.[85] In the same year, MSF closed its medical programmes in the country, following the killing of five employees.[86] The organisation returned five years later to work in two hospitals, one in Kabul, the other in Helmand.[87] In 2020 MSF alone spent close to 35 million USD in Afghanistan, including around 2.5 million in COVID-19 expenses.[88] In 2019 the UN response plan of the health cluster amounted to 51.4 million and received 36 million in funding.[89] The ARTF three-year Sehatmandi budget for the period 2018 to 2021was 600 million.[90]

With small differences in cost related to varying practices among donors and service providers, the per capita cost of the BPHS ranged between 4.07 and 4.69 USD in 2010. The amount was calculated as the cost for the population covered. In Kabul, the estimated BPHS

[81] Said A. M. Najafiza, Ronald Labonté, and Yvy L. Bourgeault, "Community Health Workers of Afghanistan: A Qualitative Study of a National Program," *Conflict and Health* 8, no. 26 (2014).
[82] https://countryeconomy.com/gdp/afghanistan?year=2001, accessed December 12, 2021.
[83] https://data.worldbank.org/indicator/NY.GDP.MKTP.CD?locations=AF.
[84] Jon Bennett et al., "Country Programme Evaluation Afghanistan," Evaluation Report, EV 696 (May 2009): 6.
[85] Seth G. Jones et al., "Afghanistan," *Securing Health: Lessons from Nation-Building Missions*, chapter 7 (Rand Corporation, 2006): 187–219.
https://www.rand.org/content/dam/rand/pubs/monographs/2006/RAND_MG321.pdf, accessed 10/12/2021.
[86] Field Exchange, "MSF Close Their Afghanistan Programme," Accessed October 4, 2021, https://www.ennonline.net/fex/23/msf.
[87] Alas Von Joel, "Doctors without Borders Returns to Afghanistan," *Der Spiegel*, 12 October 12, 2009, https://www.msf.org/international-activity-report-2020.
[89]Financial Tracking Service, "Afghanistan 2019 Appeal Summary," accessed December 12, 2021, https://fts.unocha.org/appeals/672/summary.
[90] "USAID ARTF-Sehatmandi Overview," accessed October 21, 2021, https://www.usaid.gov/news-information/fact-sheets/artf-%E2%80%93-sehatmandi.

coverage was around 15 percent.[91] In 2001 the WHO Commission on Macroeconomics and Health estimated that it would cost around 34 USD per person to provide a minimum package of healthcare in low-income countries.[92]

In 2020 annual per capita GDP was 2000 USD (purchasing power parity).[93] The total GDP was 19.807 billion USD.[94] The proportion of people living below the poverty line (1.90 USD daily) was 43.7 percent in 2020, and the proportion of those employed below the poverty line was 34.3 percent in 2019.[95] The "Country Partnership Framework" agreement between the Islamic Republic of Afghanistan and the World Bank estimated total healthcare spending for the financial years 2017 to 2020 at eight percent of GDP, with a per capita health expenditure of 55 USD. About three quarters of this was financed by households, 20.8 percent by donors, and only 5.6 percent from the government budget.[96] The figures point towards the importance of the private sector in healthcare provision. In 2011–2012, visits to private clinics and hospitals constituted 45 percent of total outpatient use. Although hospital inpatients were more likely to stay at public facilities, 5 percent of Afghans sought treatment abroad, spending 285 million USD on healthcare beyond the borders.[97]

Recent Political Developments and Their Effect on Health

[91] Aaron Blaakman and Aung Lwin, "Afghanistan Basic Package of Health Services (BPHS) Study: Cost-Efficiency, Quality, Equity and Stakeholder Insights into Contracting Modalities," Health Policy Project, Centre for Development and Population Activities, Washington, DC, 2013, https://www.healthpolicyproject.com/pubs/245_ContractingModalitiesStudyFINALREPORT.pdf.
[92] World Health Organization, *Macroeconomics and Health: Investing in Health for Economic Development*, executive summary, December 2001, http://www.columbia.edu/itc/hs/pubhealth/p8725/Macroeconomics___Health.pdf, p. 11,
[93] CIA World Factbook, "Afghanistan Summary," accessed October 22, 2021, https://www.cia.gov/the-world-factbook/static/fd00b44e12e3769e57d57c1a5da3a826/AF-summary.pdf.
[94] https://data.worldbank.org/indicator/NY.GDP.MKTP.CD?locations=AF.
[95] Asian Development Bank, "Poverty Data: Afghanistan," accessed January 2, 2022, https://www.adb.org/countries/afghanistan/poverty.
[96] World Bank Group, "Supporting Growth and Stability in Afghanistan," The Country Partnership Framework Summary 2017–2020, World Bank, Kabul, accessed October 6, 2021, https://documents1.worldbank.org/curated/en/981921484280075232/pdf/111972-WP-P159310-PUBLIC-Summary-CPF-2017-2020-English-Webversion.pdf.
[97] Harry E. Cross et al., "Government Stewardship of the For-Profit Private Health Sector in Afghanistan," *Health Policy and Planning* 32, no. 3 (2017): 338–48.

In February 2020 the United States and the Taliban signed a peace deal. Intra-Afghan negotiations started off in Doha, Qatar, in September 2020.[98] Meanwhile, fighting in Afghanistan continued and Taliban fighters increasingly gained ground. After they had captured Kabul in August 2021 and seized the presidential palace, the Taliban declared that the war was over.[99] Following the withdrawal of US troops and the government takeover by the Taliban, the World Bank froze Afghanistan's government accounts. Meanwhile China and Pakistan decided to work with the new government.[100]

As discussed earlier, since 2003 the MOPH had been contracting service providers, initially mostly international, later also national NGOs. These providers implemented the national health policy in thirty-one provinces, leaving three provinces under direct management of the provincial health authorities. After 2018 the bidding model and contracting modalities were modified. Providers relied on the payment in instalments of an agreed baseline budget, to be adjusted in accordance with self-reported figures related to the performance of key services.[101]

After August 2021 the contracted Sehatmandi providers declared that they were unable to continue without renewed funding.[102] United Nations health-related agencies in collaboration with the Global Fund combined efforts to pay health workers directly, and to bring in essential drugs and supplies, bypassing the government.[103] These temporary measures helped to avoid widespread closure of health facilities. In September 2021 the United States

[98] Franz J. Marty, "The US-Taliban Deal a Year Later," *Diplomat*, February 1, 2021.
[99] Claire Mills, "Afghanistan: Fall of the Government and the Transition of Power," Research briefing no. 9299, House of Commons Library, 2021.
[100] https://www.dw.com/en/will-aid-for-afghanistan-strengthen-the-taliban/a-59181590.
[101] HealthNet TPO, "Afghanistan's Health Crisis: The System Is Functional. Now Donors Need to Fund It," October 8, 2021, https://reliefweb.int/report/afghanistan/afghanistan-s-health-crisis-system-functional-now-donors-need-fund-it.
[102] Apoorva Mandavilli, "Health Care in Afghanistan Is Crumbling, Aid Groups Warn," *New York Times*, September 12, 2021.
[103] Michelle Nichols, "In Test, U.N. Skirts Taliban to Pay Afghan Health Workers," *US News*, November 10, 2020,
https://www.usnews.com/news/world/articles/2021-11-10/in-test-un-skirts-taliban-to-pay-afghan-health-workers.

decided to channel additional humanitarian aid, including medical supplies, through independent organisations and UN agencies, while activating a "Disaster Assistance Response Team" outside of Afghanistan.[104] An EU emergency response was set up in October 2021 to deliver medical supplies and medicine to service providers, while avoiding the Taliban, and excluding long-term development projects.[105] In December 2021 international donors decided to release 280 million USD from a frozen fund to UN food and health services.[106] Meanwhile, the nutrition situation is likely to further deteriorate due to the combined impact of the economic crisis, unfavourable weather conditions, and COVID-19.

Conclusion

Between 2002 and 2020, transitional global assistance to Afghanistan and the presence of international actors boosted the economy, increasing household resources, albeit unequally. In addition to health system strengthening, a growing private sector responded to the demand for healthcare. Public health indicators, especially those related to childhood and motherhood improved from a very low baseline but remained poor from a world perspective. Global support for health system strengthening contributed to the achieved results.

Recent military and political developments exposed the institutional weakness of the MOPH and its quasi-total dependence on external resources. The resumption of international assistance may avoid a humanitarian disaster. Local ownership and commitment to realistic and measurable public health objectives will be necessary to rebuild a viable national health system. The experience of SEHAT and Sehatmandi should inspire a new government to develop national managerial capacity and to take direct responsibility for support and supervision of the health workforce within the country.

[104] https://www.usaid.gov/news-information/press-releases/sep-13-2021-united-states-nearly-64-million-additional-humanitarian-assistance-afghanistan, accessed January 13, 2022.
[105] https://www.devex.com/news/eu-weighs-restarting-development-work-in-afghanistan-avoiding-taliban-101821, accessed January 13, 2022.
[106] https://www.bbc.co.uk/news/world-asia-59617510, accessed December 14, 2021.

In the absence of an internationally recognised national government in Afghanistan, humanitarian assistance to the health sector is currently the only option. In accordance with international humanitarian law, health structures should be safe havens and civilian medical personnel must be protected. Health services can be pivotal in rebuilding social cohesion. International aid agencies are now strengthening the existing network of community health workers, linking the community and the formal health system. The aim is to rebuild trust and improve the use of the available services.

An international presence implies communication channels within the country. Professionals working in the health sector can facilitate exchanges with and between local communities, service providers, and authorities. Their understanding of social issues, especially in relation to the lives of women and children, may be invaluable at a time when impartial brokers are required to leave the moral quagmire created by decades of hostility.