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The Challenges and Constraints of Child Health and Nutrition in Pakistan in the Context of Poverty: A Qualitative Content Analysis with the Focus of Balochistan

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Abstract

Child survival and nutrition are still one of the chronic public-health and human-development issues in Pakistan. In spite of the improvement in mortality over the last 30 years, the country still has a high burden of preventable deaths, malnutrition (both chronic and acute), maternal ill health, food insecurity, poverty and inequitable access to essential health services. Furthermore, the challenges are especially high in Balochistan due to its geographical difficulties, lack of skilled health workers, lack of institutional capacity, lack of physical infrastructure, and the fact that the population is widespread. This study explores the systemic factors that impact child health and nutrition in Pakistan, especially in Balochistan, as well as the interplay of poverty, population dynamics, maternal health and the performance of the health system. The qualitative content-analysis method was used. The documentary corpus comprised the National Integrated Reproductive, Maternal, Newborn, Child and Adolescent Health and Nutrition Implementation Strategy and Action Plan 2016–2020, the corresponding province Balochistan strategy, the Demographic and nutrition surveys, Multiple Indicator Cluster Survey data, government reports and United Nations reports, as well as peer-reviewed academic literature. Systems thinking, the World Health Organization (WHO) framework of a health system and United Nations Children's Fund (UNICEF) conceptual framework on maternal and child nutrition guided the analysis. The results show that child health and nutrition outcomes are the product of interdependent constraints, rather than discrete deficiencies. There are several major themes: the links between poverty, high fertility, food insecurity, maternal deprivation and poor child development are mutually reinforcing; there is chronic under nutrition; child survival is not equal; there is low and delayed financing; there are shortages and maldistribution of skilled human resources; governance and information systems are fragmented; and sociocultural and geographical barriers to service use. These interactions are illustrated by the nutrition indicators of children under five in Balochistan: 46.6% stunting in the 2018 National Nutrition Survey, 18.9% wasting in the same survey and 31.0% children being underweight in the 2019-2020 Balochistan Multiple Indicator Cluster Survey (MICS). The paper argues that efforts to reduce child mortality and malnutrition must go beyond isolated programmes to work towards an integrated approach involving primary care, nutrition sensitive social policy and strengthening institutional capacity in the provinces.

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1. Introduction

Child health and nutrition are core measures of social, economic and institutional capability of a society. Clinical health services are a key determinant of survival in infancy and

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childhood, physical growth, cognitive development and protection from preventable disease, but maternal health, household food security, sanitation, education, gender relations, social protection, economic stability and effective governance are also. If these determinants are not strong, childhood disadvantage can build up (WHO, 2020). Low weight, stunted fetal growth; inadequate infant and young-child feeding can lead to wasting and stunted growth; repeated infection can lead to further stunted growth; poverty can delay health-seeking; and developmental deficits can lead to lower educational attainment and productivity in adulthood. Child malnutrition is thus, a consequence, and also a driver of intergenerational inequality (Soliman et al., 2021).

Pakistan has made measurable strides in child survival, but there is still a considerable burden of child deaths to be addressed. UNICEF's last estimates based on internationally comparable data show that the under-five mortality rate in Pakistan is about 56 per 1,000 live births in 2024, more than 140 per 1,000 live births in 1990. However, it was estimated that 381,000 children under the age of five died in 2024. A significant proportion of all child deaths are in the neonatal period (36 neonatal deaths per 1000 live births), which is important. The trends show an important policy paradox: there is national improvement and the absolute and relative burden is large, inequitably distributed, and significant and preventable (National Commission on the Rights of Child, 2025). Malnutrition is a similar problem. According to the Pakistan National Nutrition Survey (NNS) 2018, 40.2% children under 5 years of age were stunted, 17.7% wasted and 28.9% underweight. The overall trend was mixed over the long-term. Stunting declined from 43.7% in 2011 to 40.2% in 2018, and underweight prevalence declined from 31.5% to 28.9%; however, wasting increased from 15.1% to 17.7%. Chronic and acute malnutrition, micronutrient deficiencies and rising levels of childhood overweight are also part of the multiple burden of malnutrition that is emerging in Pakistan (Government of Pakistan & UNICEF, 2020).

These are national averages and do not show any great geographical variation. Balochistan, the largest province in terms of land area in Pakistan, has a sparse population density, tough topography, relatively weak transport and communications infrastructure, food insecurity, poverty and low coverage of health services, and lack of skilled personnel. The NNS 2018 revealed stunted, wasted, and underweight children under five years of age accounted for 46.6%, 18.9%, and 31.0% of the total children population of Balochistan, respectively. The situation was worse at district level; the stunting rate being 62.9% in Kalat and 61.6% in Kacchi. The MICS (2019–2020) then estimated 49.7% as stunted, 27.2% underweight, and 9.2% wasted in children under the age of five, but methodological and temporal differences prevent the estimates from being directly compared with those from the NNS (Government of Pakistan & UNICEF, 2020).

The nutritional problem is exacerbated by food insecurity. The NNS (2018) identified only about half of the population of Balochistan to be food secure, with 35.3% of the population identified as severely food insecure. The disparities between districts were very high, with a high proportion of severely food insecure people in Killa Abdullah (61.7%) and Chagai (78.4%) in the survey. This information shows that it's not just a lack of clinical nutrition services that need to be blamed for childhood malnutrition. Household income, agricultural conditions, markets, social protection, climatic shocks and intra-household

resource distribution are among the factors that affect the availability, affordability, diversity and stability of food (Government of Pakistan & UNICEF, 2020).

Maternal health and child survival as well as nutrition are closely linked. In Pakistan, maternal mortality ratio was estimated to be 186 deaths per 100,000 live births in the Pakistan Maternal Mortality Survey 2019, while there were significant variations among the provinces. The rate in Balochistan was found to be highest at 298 per 100,000 live births while the rates in the other four provinces were 157 in Punjab, 224 in Sindh and 165 in KP. In itself, maternal survival is important but maternal health is also integral to the health of newborns and children through antenatal care, nutritional status, birth spacing, skilled attendance, breastfeeding, household caregiving and women's ability to access appropriate health services (National Institute of Population Studies [NIPS] & ICF, 2020).

Also geographical inequality is reflected in service-utilization indicators. The provincial program data, which was derived from the Pakistan Demographic and Health Survey (PDHS) 2017-2018, shows that only around 38% of all births in Balochistan took place at health facilities and only around 35% of births were attended by skilled providers (NIPS & ICF, 2019). Results of the Balochistan MICS 2019-2020 showed that some progress was made as the institutional deliveries were about 40.4% and skilled attendance at delivery was 49.9%. However, there was significant under-representation compared to national level coverage (UNICEF, 2022).

Some major changes occurred within the institutional setting following the Eighteenth Constitutional Amendment (2010) of Pakistan. Health was further devolved to the provincial governments, which provided opportunities to create policies that are going to fit local geographic and demographic realities. Concurrently, devolution increased the needs for planning, financing, management, regulation, human-resource development, monitoring and coordination between different levels of government in the provinces. Devolution was correctly recognized as an opportunity and potential for fragmentation in the organization of reproductive, maternal, newborn child and adolescent health and nutrition services in the original paper the present study is based on. Due to persistent maternal and child health and nutrition problems, the Government of Pakistan has come out with a National Integrated Reproductive, Maternal, Newborn, Child and Adolescent Health and Nutrition (IRMNCAH&N) Implementation Strategy and Action Plan for 2016-2020. A provincial implementation strategy was prepared by Balochistan. These frameworks acknowledged that more than just disease interventions was needed for improvements. They highlighted Quality and Access, Maternal and Newborn Services, Nutrition, Financing, Community based programmes, Family Planning, Health System Strengthening, Monitoring, Accountability and Action around Social Determinants (Ministry of National Health Services, Regulations and Coordination [MNHSRC], 2016).

However, the presence of a detailed plan doesn't ensure that it can be implemented effectively. Delayed financing, significant funding gaps, lack of trained staff, lack of coordination between health and population-welfare systems, community health program weaknesses, underutilization of information systems, and limited community involvement were recognized as significant constraints in the source paper. These issues are analytically relevant because they are failures of several interdependent elements of the health system, and not of a single program. There's the economic vulnerability, too. Poverty has seen

significant changes in Pakistan since the inflation rates, job conditions, economic reforms, weather related shocks, and the agricultural productivity have all had an impact on the welfare of households. The national poverty level in FY2024 was estimated to be about 25.3% by the World Bank and is expected to decline to about 22.2% in FY2025 using the National poverty methodology adopted by the World Bank. The Bank noted, however, that the recovery was less for rural households due to poor agricultural growth. Therefore, it is better to characterize today's poor state in Pakistan as a consistent growing linear trend in terms of socioeconomic vulnerability rather than poverty (Barriga Cabanillas et al., 2025).

The present study thus takes a systems perspective of child health and nutrition. It looks at the interactions between health financing, distribution of health workers, service delivery, governance, health-related poverty, food insecurity, population characteristics, maternal health, gender and community-level factors. The Balochistan is not an exception, it is not an isolated region from the rest of Pakistan, and rather, it is a region where the nation's problems take a concentrated form. The aim of the study is to explore major systemic problems and constraints to child health and nutrition in Pakistan, especially in Balochistan and to analyze the interactions between poverty, population growth, maternal health, capacity of health systems and sociocultural factors in relation to child survival and nutrition outcomes. The study is focused on the research question that what is the interaction between poverty, population dynamics, health financing, human resource constraints, governance, accessibility of services and sociocultural factors on child health and nutrition outcomes in Pakistan with a focus on Balochistan?

2. Literature Review

2.1. Child Survival and the Ongoing Burden of Preventable Deaths

The child-survival curve of Pakistan shows good progress over the long-term but also a long-standing underperformance. Although there has been significant improvement in under-5 mortality rates since 1990, the national rate as estimated by UNICEF, at 56 deaths per every 1,000 live births is still high and means hundreds of thousands of under-5 deaths annually. The PDHS 2017-2018 also found stark disparities between urban and rural children – the estimated rate for under-five mortality was 83 per 1,000 live births for rural children, and 56 per 1,000 live births for urban children. The infant mortality rate in rural areas was 68/1,000 while it was 50/1,000 in urban areas (NIPS & ICF, 2019). Child deaths are concentrated in the poorer and geographically disadvantaged population and a reflection of the broader social production of child health. Children are not exposed to equal conditions of pneumonia, diarrheal disease, newborn complications, malnutrition, and vaccine-preventable diseases. Maternal education, housing, water and sanitation, food access, treatment, vaccination, transport, household decision making and the quality and availability of facilities mediate risk of illness and death.

In an effort to map and quantify socioeconomic inequalities in children's exposure to poor health outcomes, the inequality analysis based on a household-based health index by Naveed and Shah (2024) revealed that there are significant socioeconomic disparities in health outcomes among children in Punjab. While their study is not on Balochistan, rather on Punjab, it extrapolates to Balochistan and is relevant: the economic situations of households shape children's access to the resources they need to survive and develop in a healthy manner. Spending more and more money on individual interventions while doing nothing about the

health system can have only a minimal impact, as the WHO's health-systems framework explains. Good service delivery requires interconnected parts including the health workforce, financing, information, essential products and technologies, leadership and governance and accessible high quality services (WHO, 2007). Failure of one part can impair the function of the others. All these – skilled personnel, medicines, equipment, referral transport, reliable information and sustainable financing – are necessary for a health facility to deliver quality neonatal care.

2.2. Childhood Malnutrition Is a Multidimensional Development Problem

Malnutrition is frequently boiled down to the lack of food consumption. In contrast, contemporary nutrition frameworks recognize that the determinants of nutrition can be immediate, underlying, and enabling, and that nutrition status is the outcome of these. UNICEF's (2020) conceptual framework has adequate diets and care as short-term drivers of maternal and child nutrition. Access to nutritious foods, good practices, health and nutrition services, water and sanitation, education and social protection are all determinants of these. On a deeper level, resources, social norms and governance provide the enabling environment for the households to have or not have access to adequate nutrition. This model proved to be extremely helpful for Pakistan as there is a gap between food available and food not available in terms of nutritional deprivation. Child growth is affected by household purchasing power, women's education, breastfeeding and complementary feeding practices, sanitation, health care, maternal nutritional status, recurrent infection and intra-household food allocation.

The NNS (2018) is the most complete national evidence. The prevalence of stunting in Pakistan was 40.2%, wasting was 17.7% and underweight was 28.9% in children under 5 years of age. The figures of 46.6%, 18.9% and 31.0% were significantly alarming in Balochistan as well. The more recent State of Children in Pakistan 2024 also shows that the provinces of Sindh and Balochistan suffer the country's highest burden of stunting, wasting and underweight. The effects of malnutrition go beyond just the size of the child's body. Black et al. (2013) showed that under nutrition during childhood and in the mother is a risk factor for death, physical growth, cognitive impairments, and long-term economic consequences. Malnutrition thus becomes a "tool" by which poverty is passed on from one generation to the next. Growth and cognition that is stunted may lead to reduced school performance, reduced future earning potential and increased risk for chronic diseases. The link between this and nutrition interventions, both nutrition-specific and nutrition-sensitive, can be explained. Nutrition specific interventions are breastfeeding promotion, complementary feeding, micronutrient interventions, acute malnutrition management and maternal nutrition. Nutrition sensitive action is related to agriculture, food systems, social protection, women's education, sanitation, health services and poverty reduction.

2.3. The Intergenerational Continuum, Maternal Health

It is not possible to separate out analytically maternal and child health. The nutritional and medical condition of the mother before and during pregnancy affects the birth outcome and health of the fetus, maternal illness, anaemia, poor antenatal care, unsafe delivery and short birth interval can further increase the neonatal and infant risks. The poor maternal health may also impact breastfeeding and post-partum care giving ability. Major inequalities between the provinces were identified in the Pakistan Maternal Mortality Survey (PMMS) 2019. The maternal mortality ratio in Balochistan was estimated at 298 per 100,000 live births which

was nearly double of that in Punjab. Nationally, there were more maternal deaths in rural areas than urban areas, with 199 per 100,000 live births in rural areas and 158 per 100,000 live births in urban areas. These statistics illustrate the relationship between place of residence, access to health systems and maternal mortality (PMMS, 2019).

These differences in antenatal care support this explanation. In 2019, over 1/5 of all ever married women in Balochistan had zero antenatal care, which is considerably less in more well-served areas. There was a positive association between education and household wealth, and skilled antenatal care. Education and poverty are thus a background factor and a factor that influences access and utilization of potentially life-saving services by the mother. The nutritional status of mothers is a problem in itself (NNS, 2018). The NNS (2018) revealed that about 15.1% of non-pregnant female population in reproductive age in Balochistan was underweight. Meanwhile, 22.6% of them were overweight and 12% overweight and obese, indicating a transition from single to double burden of malnutrition. Health systems need to be able to respond to under nutrition, micronutrient deficiencies, and excessive weight, due to this epidemiological complexity.

2.4. Population and Dynamics of Poverty, Food Insecurity

Child health is impacted by poverty in various ways. Poor households can afford fewer resources to buy a variety of foods, to transport women and children to facilities, to pay for direct and indirect health costs, have fewer resources to support adequate housing and sanitation, and are less able to cope with economic or climatic shocks. Education also is tied to poverty. Maternal education has benefits on health knowledge, women's decision making, better use of health prevention services and fertility and investment into individual children. The source was able to visualize poverty, fertility and children's health as interdependent processes rather than as individual ones. It said poverty might limit access to education and family planning and high fertility levels might cause the spread of household resources to be thin across food, education and health needs. This link is theoretically possible, but it should not be regarded as an assumption that poor households invariably have large families and/or that high levels of population increase inevitably lead to poverty.

There is a more direct route to address food insecurity. The household food insecurity experienced in Balochistan was severe in NNS (2018) with around 35.3% of the households facing severe food insecurity largely due to their inability to access adequate food intake. Food insecurity may lead to chronic malnutrition, and to episodic acute malnutrition, especially in the context of diarrheal disease, drought, inflation, crop losses or income shocks to the household. This relationship is particularly important in Pakistan because of the recent macroeconomic instability in the country. Despite the significant pressures of FY 2024, the World Bank's (2025) estimates indicated that rural welfare continued to be low, and that overall national poverty would be slightly lower. Structural vulnerability in geographically marginalized communities, however, is not overcome through a short term improvement of a national poverty rate. Population growth also impacts system capacity in several other ways, such as increasing the demand for health workers, immunization, maternity and newborn services, nutrition services, schools, water, sanitation, and social protection. The problem isn't the size of the population itself, but whether services, job opportunities and public investments grow at a pace that is commensurate with the population's needs.

2.5. Health-System Devolution and Provincial Capacity

The institutional environment of health policy in Pakistan dramatically transformed after the devolution in 2010. Planning and implementation shifted to increased responsibility on provincial governments, leading to opportunities of locally responsive strategies. In theory, Balochistan could have its own delivery models to suit a sparsely populated province, instead of taking the SS4 model from the national context. Not only was that, though, the institution of devolution an opportunity to uncover some differences in provincial institutional capacity. With regard to effective decentralization, planning skills are needed, along with strong financial management, procurement, human-resource systems, information systems, program coordination and implementation at the district level. Administrative decentralization can lead to fragmentation when these capacities are low.

Some of these constraints were mentioned in the Balochistan IRMNCAH&N Implementation Strategy and Action Plan (2016-2020). The provincial strategy identified a significant funding shortfall (around 65% for a full implementation) and that delayed disbursement was a significant programmatic issue. That estimate pertains to the strategy period of 2016–2020, and shouldn't be presented as a current financing amount, but is historically significant as an example of the mismatch that can occur between the comprehensive policy design and available implementation resources. Fragmentation was identified in the same areas, in the Department of Health, Population Welfare Department, Lady Health Worker program, nutrition programs, Expanded Programme on Immunization, maternal and child health services and health-information structures. This fragmentation may lead to administrative duplication, loss of continuity of care and opportunities for multiple interventions to be provided from the same community or facility contact.

2.6. Human Resources, Geography and Service Accessibility

The conventional mode of service delivery is challenging in Balochistan due to its geography. In rural areas, distances from primary or referral services may be significant and transport costs can be a significant obstacle in obstetric, neonatal and childhood emergencies. Additionally, with low population densities, it is more expensive to have highly specialized staff and infrastructure at every community, which is necessary to maintain highly specialized staff and infrastructure at every community. The lack and retention of trained personnel, such as doctors, nurses, midwives, and other health care workers to provide care in remote areas was identified as a key barrier in the uploaded study. It also highlighted challenges to the Community Midwife program such as eligibility of candidates, poor quality of trainings, supervision, and retention of candidates, good compensation, and career progression (Kakar et al., 2025).

Solution to this problem is not just a matter of simply adding more health workers. Distribution matters. It is possible for one province to have sufficient numbers of staff in aggregate but not in the remote districts that it serves. Good rural workforce policy involves attracting people from the local community, having the right skill mix, providing housing and security, financial and career incentives, good supervision, ongoing training and development, and functional referral networks (Nawaz et al., 2021). Examining the role of sociocultural factors, gender, and community engagement. Assessing the importance of sociocultural factors, gender, and community engagement. Availability of health services does not necessarily translate to utilization. Factors such as whether families seek care can be

influenced by the mobility of women, the household decision-making process, trust in providers, language, household beliefs and perceptions, and prior experience with health facilities (Khan et al., 2023).

The provincial strategy identified limited mobility of women and their limited decision making power as a challenge in certain communities and other challenges as limited communication and community mobilization. Where health decisions are made collectively or where there are social service quality issues or mistrust, distance or gender norms, the use of mass media information alone may not be sufficient. One reason the community health workers are important is they can help fill this institutional-social gap. Frontline workers (Lady Health Workers, community midwives, vaccinators, nutrition workers and others) can deliver information and basic services in communities, and link households to service provision points. However, supplies, supervision, remuneration, training, community legitimacy, and referral capacities are essential to their effectiveness (Baloch & Bashir, 2019).

2.7. Research Gap

There is a good amount of literature available on malnutrition, child mortality, poverty, maternal health and issues in service delivery in Pakistan. The difference is not in terms of recognizing individual problems, but in terms of understanding how problems relate to each other. Research often focuses on specific issues (e.g., malnutrition, health financing, fertility, maternal mortality, and poverty) and policy programmes are frequently designed vertically by theme. Therefore, an integrated analysis that takes into account the interlinkages between household poverty, nutrition, maternal health, population dynamics, financing, workforce distribution, governance, information and community-level barriers is needed. The present study fills this gap, especially on the basis of qualitative content analysis with a special focus on Balochistan.

2.8. Analytical Framework

The study incorporates three complementary perspectives: the WHO health-systems framework, UNICEF's conceptual framework on maternal and child nutrition and systems thinking. One of the premises of systems thinking is that health outcomes only occur in an interactive way and not as simple one-way cause and effect processes. The lack of midwives, for example, can't be considered in isolation of financing, training capacity, deployment policy, housing, community trust, supervision, and transportation. Likewise, child wasting can relate to multiple of these factors, including inadequate dietary intake, infection, maternal nutrition, food prices, water quality, household poverty, feeding practices and treatment access. There are six key health system pillars identified in the WHO framework: service delivery, health workforce, information, medical products and technologies, financing and leadership/governance. These offer an institutional perspective in which interpretations of constraints on implementation can be set. UNICEF's nutrition framework brings in determinants which are not part of the formal health system. It distinguishes factors which are immediate determinants (diet and care) from factors which are underlying (food, practices and services) and deeper enabling (resources, norms, and governance). These methods allow for the health system and social context in which the health system functions to be studied

3. Research Methodology

This study used qualitative content analysis approach in order to explore systemic issues related to child health and nutrition which was studied particularly in Balochistan

province of Pakistan. In this study, the research question is about the relationship between policies, institutional constraints and socioeconomic determinants and documented health outcomes, which means the statistical test of a single causal hypothesis is not the objective of the study. For this reason, qualitative content analysis is chosen. The documentary corpus was purposefully designed to include authoritative policy, programmatic, statistical and academic documents. Core documents comprised the Government of Pakistan's National Integrated Reproductive, Maternal, Newborn, Child and Adolescent Health and Nutrition Implementation Strategy and Action Plan 2016 – 2020, Government of Balochistan's provincial IRMNCAH&N strategy, Pakistan Demographic and Health Survey 2017 – 2018, Pakistan Maternal Mortality Survey 2019, the National Nutrition Survey 2018, the Balochistan Multiple Indicator Cluster Survey 2019 – 2020, UNICEF and WHO reports, World Bank development and poverty assessments, and peer-reviewed scholarship on nutrition, poverty, child health, and health systems. Documents were reviewed iteratively, and coded deductively and with deductive categories that were identified based on information from the WHO health system framework and the UNICEF nutrition framework, such as financing, the workforce, governance, service delivery, health information, maternal health, nutrition, household food security, social norms, poverty, and population dynamics. Patterns that were not represented by any of the existing categories were then discovered with the use of inductive coding, including patterns of institutional fragmentation, geographical inequality, implementation gaps, and reinforcing cycles of disadvantage. Evidence was correlated from national and provincial sources to identify Pakistani federal level issues from issues which are more pronounced in Balochistan. Qualitative findings were used descriptively in quantitative statistics which were contained within the documents and were used to provide context to the findings not for the purpose of secondary statistical modelling. Official surveys and peer reviewed evidence were given a higher priority when claims were inconsistent in earlier documents or were deemed to be not up to date. There were no human subjects in this study and no personally identifying information was collected. Its main drawbacks are the fact that it is easier to assess policy design and documented system performance than to assess how a policy is implemented in the day-to-day operation of individual health facilities and in families.

4. Findings and Analysis

4.1. Despite Success in Survival, Persistent Child Malnutrition

There is a double picture here: Pakistan has made progress in child survival, but has a very high level of malnutrition and preventable mortality. It is significant that under-five mortality will drop to around 56 per 1,000 live births by 2024 and cannot be ignored. However, there has not been a corresponding improvement in nutrition. The NNS (2028) indicates that the national stunting rate is still around 40 per cent, indicating that survival and good development are not one and the same. The situation of malnutrition is particularly acute in Balochistan. Prevalence of stunting, wasting and underweight in the NNS 2018 were 46.6%, 18.9% and 31.0% respectively. With a lack of survey differences in mind, the Balochistan MICS 2019-2020 also showed even higher stunting rates (49.7%) and lower wasting rates (9.2%) reflecting both the persistence of chronic malnutrition and the importance of recognizing differences between surveys (Government of Balochistan, 2016-2020).

Stunting is analytically important because it indicates a chronic malnutrition and deprivation of environmental factors which is particularly high. Its determinants are cumulative, related to maternal health, fetal growth, breastfeeding, complementary feeding, repeated infection, sanitation, food security and poverty. The evidence then refutes the arguments which point to the household food choices as the sole cause of malnutrition. Conditions for good nutrition are created in food, health, water, sanitation, education, social protection and governance systems.

4.2. The Financing Constraints and the Gap between Policy and Implementation

Financing turned out to be a base constraint, impacting almost all the other aspects of the system. The Balochistan IRMNCAH&N strategy was very broad in scope, but was implemented in a resource base that could not afford everything that was proposed. The previous study found that a financing gap of approximately 65% is needed to implement the provincial action plan fully and that there was a problem with slow or inadequate fund release. Delayed or inadequate financing are not only of analytical importance in relation to the size of the health budget. While a program might be approved for funding, it may not be operating properly when funds are received after the critical implementation time, when district managers do not have enough fund allocation authority, or when it is not funded for recurrent expenditure for staff, fuel, supplies, supervision, and maintenance is not protected. Household level financing is also an issue. Families can also face transport costs, cost of medicines, diagnostic costs, accommodation costs and loss of income to access services even when access to services is free. These indirect costs are of great significance in geographically scattered Balochistan (MICS, 2019-2020).

It creates two financial barriers – firstly, health service provision may be underfunded and, secondly, poor families may not be able to afford to use the service. This accounts for the importance of combining financial protection and social protection as child health interventions. A catastrophic cost / high food price exposure household could either cut food intake or postpone health care. Reliable cash transfers, nutrition support, transport assistance and financial risk protection, however, can have an impact on health outcomes when delivered by a different sector than the health sector.

4.3. Human Resource Shortages and Geography of Inequalities

The next constraint has to do with the availability, distribution, skill and sustainability of health workers. The issue is more pronounced in remote regions of Balochistan where poor infrastructure, lack of accommodation and security concerns, and poor school education to children of health workers, combined with their lack of career opportunities and isolation from other professions, make it difficult to retain health workers. Lack of skilled birth attendants, nurses, midwives, and doctors in remote areas is repeatedly mentioned in the provincial strategy as well as in the uploaded source. However, the content analysis suggests that this is no mere lack of numbers. It's a distribution and support system issue (Government of Balochistan, 2016-2020; MICS, 2019-2020).

Having a health worker at a remote service point is not enough to ensure services are provided effectively if medicines are not available, accommodation is unsafe, referral transport does not operate, supervision is irregular, or opportunities for health workers to learn are lacking.

This is a problem shown in the community midwives. The programme aimed to enhance the availability of skilled birth attendants near the rural communities, but a shortage of well qualified candidates, the poor quality of training, the lack of supervision, the poor compensation for the candidates and the lack of retention of the trained staff was a great challenge in achieving this goal. The constraints in this section demonstrate how educational inequities in rural areas can significantly contribute to health-system inequities: places with the highest maternal health needs are also likely to have the lowest numbers of women who satisfy the formal criteria for qualified positions in the health system (Government of Balochistan, 2016-2020; MICS, 2019-2020).

The need for the workforce challenge therefore needs a localized approach and not temporary posting orders. Sustained availability from training rural women and men in underserved districts, establishing career pathways, supporting housing and transportation, using remote mentorship and integrating community-level providers into referral systems are more likely to yield sustained availability.

4.4. Fragmented, Coordinated and Weak Continuity of Care

Fragmentation was one of the most consistent institutional issues found. Services for children and mothers can be organized under the jurisdiction of health departments, population welfare, immunization organization, nutrition organization, Lady Health Workers, maternal and newborn services, disease-control organization, and in different information systems, among others. Services to children and mothers can be under the jurisdiction of health departments, population welfare, immunization structures, nutrition programs, Lady Health Workers, maternal and neonatal services, disease-control programs, and separate information systems, among others.

Lack of coordination between the Department of Health and Population Welfare Department created risks of duplication of effort and poorly integrated planning and incomplete coordination of the different functions of LHW, nutrition, EPI, MNCH and health-information limited opportunities for comprehensive care, the source paper reports (Government of Balochistan, 2016-2020; UNICEF, 2024).

But in the case of households these administrative separations do little to explain the difference between them. A woman in pregnancy can need to be assessed for nutrition, take iron folic acid tablets, have a physical examination, receive vaccinations, receive family planning advice, prepare for delivery, and be referred to other services. A young child might require Immunisation, Growth Monitoring and Management of illness, Breastfeeding Counselling, Micronutrients and Assessment of Acute malnutrition (IRMNCAH&N policy, 2016-2020; WHO, 2022).

The services may be delivered vertically and require several contacts with various service providers. Opportunities to intervene get lost, referral systems become disjointed and unclear where to go for referral. The integrated RMNCAH&N policy was created with this in mind, however, the documentation indicates that whilst it has been integrated on paper, this does not necessarily lead to integration at service-delivery level. There's another dimension because of weaknesses in health-information. High quality district and facility information is critical to help identify high-risk zones, track stock-outs, assess coverage and measure mortality, and to allocate human resources. The provincial strategy identified issues with data quality, timeliness and use. The importance goes beyond technical. The lack of information

makes it difficult to ensure good governance and to know whether low performance is due to low demand, staff absence, funding, supply disruptions or reporting issues (IRMNCAH&N policy, 2016-2020; WHO, 2020).

4.5. Sociocultural Barriers and the Limits of Supply-Side Reform

The content analysis also shows that without changes to either facilities or staff, inequalities cannot be eradicated. Health services are not just a matter of individual families, but are part of networks of social relations. Some communities may need women to be accompanied, allowed to travel or provided with money to travel. Distance can thus not be seen as a purely physical distance: for a woman without means of transport, without sources of income and without decision-making power, a distance of ten kilometres could be seen as a significantly greater distance. The Balochistan strategy acknowledged the fact that the movement of women was restricted and there was a lack of awareness about reproductive, maternal, child health, and nutrition and family planning services. It also recognized that communication activities have not always been timely and culturally responsive and/or community-specific (WHO, 2024).

There are two implications from this. The first is that a low service use rate should not be deemed by default to be due to ignorance or "culture." Families might not go to facilities if they had previously visited and experienced absent providers, poor quality care, cost of care, disrespect, lack of medicines, and lack of access to a referral system. Demand and supply are thus related to each other. Secondly, it's not enough to just broadcast messages to get everyone involved. The use of trusted local workers such as Lady Health Workers can be used to facilitate discussions and conversations with mothers, fathers, elders, religious leaders and community groups on nutrition, breastfeeding, vaccination, and spacing of births, danger signs and timely referral (NNS, 2028; WHO, 2020).

4.6. Maternal Health as a Structural Determinant of Child Outcomes

The analysis verifies that maternal health is not a policy sector in its own right but it relates to child health. One of its main factors is that. The estimated maternal mortality ratio is 298 deaths per 100,000 live births in Balochistan highlighting the high risks involved in child birth and pregnancy. Another factor of limited access is low institutional delivery rate and low skilled-attendance rate. Add to these risks, maternal nutrition. A significant proportion of women (15.1%) in the reproductive age group who are not pregnant are underweight, in Balochistan (NNS, 2018).

A pathway is established between the mother and child that can de-socialize a child and pass on disadvantages. Under nutrition during adolescence can lead to under nutrition of the mother, which in turn can cause fetal growth restriction, in turn increasing the risk of illness and growth failure in the small or nutritionally compromised infant, and under nutrition of the mother during pregnancy can lead to under nutrition of the mother's own infant(s). Hence, a change in this cycle is needed not only after birth of a child but before he/she is born, and during his/her adolescence (NNS, 2018; WHO, 2020; World Bank, 2025).

It is also a finding that illustrates the significance of investing in girls' education as a health intervention. Education can postpone early marriages and pregnancies, give women health information, enhance their decision making power, increase employment opportunities and impact the investment in nutrition and care within the household. The three indicators,

poverty, food insecurity, and population growth, are interconnected. (NNS, 2018; MICS, 2019-2020).

4.7. Poverty, Food Insecurity, and Population Growth as a Reinforcing System

The most robust cross-cut is that poverty and food insecurity interact in a recursive manner with demographic pressures and poor health. The study that was uploaded has described this as a "vicious circle" and highlighted the importance of how poverty consequences limit access to education, nutrition, health and family planning, and how increased family size will limit available resources per child. The updated analysis upholds the underlying systems logic, but doesn't explain high fertility as just "a product of poverty". Child-survival prospects, women's education and autonomy, contraceptive availability, norms, desired family size, economic structures and uncertainty all influence the decision to have a child. Likewise, employment, assets, education, economic policy, climate, conflict, geography, household composition and social protection are poverty determinants (NNS, 2018; WHO, 2022).

It is thus a feedback relationship and not a one way causal chain. One way that this system becomes evident is via food insecurity. In NNS 2018, more than one-third of the surveyed population in Balochistan is facing severe food insecurity and consequently many households are not having adequate access to food. Households can maintain their caloric consumption by switching to less nutritious, less expensive foods – even before actual food consumption declines – as food prices increase and income decreases. Children are particularly at risk due to their need for nutrient rich foods for fast growth. Nutrient needs are even higher during illness because it increases the need for nutrients and decreases appetite and ability to absorb nutrients. Poverty, infection and malnutrition thus can be complementary on the biological level as well as the economic.

4.8. The Policy Implementation Gap

The National and Balochistan IRMN strategies show that the issue in Pakistan is not only that they lack knowledge on what interventions work but also because they lack strategies to implement them. Many of the priorities already identified were already picked up by the strategies: skilled maternal and neonatal care, nutrition, community services, family planning, financial protection, strengthening of health systems, monitoring, social mobilization and action on other determinants. The main challenge is to translate a strategic vision to a consistent institutional action.

The discussion in the source document also concludes that problems with delayed funding, workforce challenges, inadequate supportive supervision, devolution issues and lack of monitoring capacity have limited implementation. It is one of the most significant of the current analysis. In many instances, the problem with health policy seems to be "implementation dilution." A strategy sets out a number of priorities (usually 10 or more) but due to the lack of resources, departments will implement a number of items from the strategy. Different development partners provide their support for different programmes. Measurable activities are encouraged over institutional reform with short cycles of project development. Training is not supervised for a long period of time. The purchasing of equipment without the support of maintenance budgets. There are no reliable supplies and community interventions expand. Monitoring is done on activity quantity but not quality or outcomes. This can manifest as a seemingly all-encompassing policy framework, with the delivery of that policed being

disjointed. This can be a policy framework that feels like it's all over the place, and a delivery of that policed that is piecemeal.

5. Discussion

The results prove that child health and nutrition in Pakistan is beyond the narrow biomedical perspective. The burden is created due to linking maternal health with household resources, food systems, health services, education, sanitation, gender relations, and governance. Balochistan is where these interactions come to the fore. Stunting and food insecurity sit alongside poor geographical access, a relative lack of skilled staff and relatively low maternal-health coverage as well as a high degree of socioeconomic disadvantage. But however it would not be analytical to see the health outcomes of Balochistan as a product of geography. Policy and institutional considerations -- roads, location of facilities, incentives for the workforce, communications, referral systems, social protection, and public financing -- make geography a health determinant.

The findings are very supportive of UNICEF's multidimensional nutrition approach. But with the prevalence of household food insecurity, sufficient food is not available and with women's poor access to health services and information, good care cannot be maintained. Services, food, practices, resources, norms and governance are, therefore, not just independent but also work together. The results similarly validate the WHO health-system framework. Limited funding influences the workforce recruitment and availability of workforce; workforce shortages negatively impact service delivery; information is fragmented and has an impact on weak management; weak governance impacts on low accountability; and poor service quality impacts on low community demand. The blocks have an analytical distinction and yet they are operationally dependent on each other.

Coverage is particularly relevant, as is the difference between coverage and effective coverage. The mere presence of a facility is not evidence of its availability, working staff, equipment, affordability, cultural appropriateness, accessibility or quality care. Likewise, a community worker can be officially deployed but not be able to work without medicines, supervision, transport and payment, and referral assistance. This is part of the reason why you may not see the results you'd expect when you just add a few more facilities or another few more employees. The same situation exists with nutrition. Nutrition interventions can identify and treat children with acute malnutrition but, if household food insecurity, unsafe water and maternal under nutrition and poverty are not addressed, repeated cases will continue if children are acutely malnourished. UNICEF's Nutrition Strategy 2020–2030 thus focusses on comprehensive, multi-sectorial interventions in nutrition, health, water and sanitation, education and social-protection sectors.

The poverty dimension has to be interpreted with care, too. Poverty was rightly identified as a central determinant, but was sometimes assumed to be a linear process and on the measurement of poverty relied on weak or not comparable estimates. More complexity is reflected in contemporary evidence. In recent times, Pakistan's poverty rate has seen a dramatic rise whilst the World Bank estimated it to improve by FY2025. The more persistent issue of structural vulnerability is that millions of households are near the poverty line and, as a result of illness, food price inflation, drought, job loss, flooding or other shocks, can quickly pull them back into poverty.

So child-health policy ought not to be restricted to those whose family income falls below a certain threshold before affording them protection. The first two years of life and pregnancy are especially vulnerable to the effects of nutrition deprivation due to the long-term developmental implications.

Also as important is the gender aspect. Evidence of maternal mortality, under nutrition among women, low skilled delivery coverage, limited mobility and unequal access to education illustrate that children's health is partly dependent on women's status. Post-natal policies are one-sided.

There is also a need to re-think Population policies. There is a need to differentiate the high fertility problem, not just an administrative problem of population control. A rights-based approach is focused on the availability of high-quality, voluntary family-planning services, girls' education, maternal survival, child mortality reduction, women's autonomy and economic security. Fertility transitions can take place when children are not at risk of dying, and women have real reproductive options, as opposed to being coerced.

The experience gained from IRMNCAH&N strategies over the last four years (2016-2020) is a valuable lesson. Pakistan and Balochistan had fairly well developed policy structures. This means that future strategies need to spend as much effort on implementation architecture as on prioritization to reflect this failure, and to ensure a complete translation of these into outcomes.

This includes detailing funding streams, staff roles and responsibilities, district implementation processes, coordinated service packages, supply chains, supervision, data systems, community accountability and measurable equity outcomes.

6. Recommendations of the Study

Establish an Integrated Maternal, Child Health and Nutrition Delivery Platforms based on PHC. The first advice is to shift away from fragmented maternal, newborn, child health, nutrition, immunization, family planning and community programmes and towards a truly integrated primary health care platform, in particularly the under-serviced districts of Balochistan. Integration should not be limited to policy level, but should be at the point of service. All significant engagement with a pregnant woman, mother, adolescent girl, new-born or young child should include a tailored nutrition assessment, nutrition counselling, immunization or vaccination, maternal care, child growth monitoring, information about family planning, illness management and referral. This will require coordinated planning between health, population-welfare, nutrition, EPI, LHW and maternal-child health systems at the provincial and district levels, as well as information systems that can share information amongst each other, monitoring indicators that can be pooled or aligned, and clear referral responsibilities. This is where remote area workforce policy should fit into. Gaining staff from underserved areas, training of female staff, incentives for service in the rural areas, housing, tele-mentoring, promotion and supportive supervision are more sustainable than placing staff in rural areas for a short time. Recurrent costs – supplies, transportation, supervision, community outreach and referrals – should be addressed and funded along with buildings and equipment. The number of activities should not be the only thing captured on district-level dashboards; other items that should be included are effective coverage, stock-outs, workforce attendance, referral completion, maternal and neonatal deaths, malnutrition outcomes, and inequalities between remote and better-served communities. This will directly solve the

financing, workforce, coordination and information gaps identified in the 2016 provincial strategy and boost the health system's capabilities, not create another vertical project.

Create a Child Nutrition and Poverty Reduction Compact involving multiple sectors in Balochistan. The second is to make child malnutrition a provincial human-development issue which goes beyond the Department of Health. A formal multispectral compact should bring together health/nutrition interventions with food security, agriculture, water/sanitation, girls education, social protection, poverty alleviation, local government and population welfare. Geographic targeting should focus on districts where the proportion of stunted, wasted children, food insecure households, children whose mothers are deprived of services, and children whose mothers are deprived of food is highest. Nutrition-sensitive social protection can safeguard the diets of mothers and children during economic shocks, drought, and food-price increases, as well as pregnancy and infancy, through linkages to accessible, not punitive health and nutrition services. Safe water, sanitation, maternal education, nutrition for adolescent girls, breastfeeding promotion, age appropriate complementary feeding, and voluntary family planning are all important components of the same strategy, and should not be analyzed or budgeted separately. Community engagement should involve the use of Lady Health Workers, teachers, women groups, local leaders, religious scholars, fathers and community groups to create a locally credible message, not through the use of a single message from a top-down communication campaign. Most importantly, the strategy must include women and girls as actors to promote health and not as only recipients of maternal services. Educating girls in secondary school, allowing women to move, providing reproductive choice, economic participation, and food assistance, can have multiple impacts on fertility, maternal mortality, food allocation, care provision, and child development. Such a multi-sectorial agreement would turn the "social determinants" concept into a clear governance framework that sets out clear goals, funding commitments and accountability.

7. Conclusion

Child health and nutrition continue to be a key indicators for Pakistan's development capability. Although the country has made significant strides in child survival, the numbers of children who die as a result of preventable causes, those who are chronically malnourished, those with food insecurity, and those mothers who are ill have not disappeared. What has not been reduced is the number of children who die as a result of preventable causes, the number of children who are chronically malnourished, the number of children who are food insecure, and the number of ill mothers. Recent data reveals that around 40% of children under five years of age in Pakistan are stunted and the situation in Balochistan is even worse. The province recorded a high level of stunting (46.6%) and high rates of wasting (18.9%) and underweight (31.0%) in the NNS 2018; and stunting rates of around 50% continued to be observed in the later MICS evidence.

The main finding of this study is that this is not a one fault effect. They are created in the interaction of disadvantageous systems. A child from a food insecure household can be born into an undernourished mother, have a diet lacking in food diversity, have frequent infections due to limited access to water and sanitation, live well outside of a functional health facility and have limited financial resources if a family becomes ill and needs transportation to a health facility. Geographical and economic obstacles are health-system failures when a facility is not available or there is not enough appropriate staff, medicines, or referral capacity.

Ineffective data utilization and institutional fragmentation further reduces the response if programs are independent of each other. Balochistan, therefore, exemplifies the linkages between health outcomes and geographical, poverty, gender, educational, food security, and governance dimensions.

The policy post-Eighteenth amendment was a significant opportunity for the provinces to create locally relevant health systems. The National and Balochistan IRMNCAH&N strategies of 2016 were significant attempts towards making the global and national maternal and child health commitments come to life. But, the history of the document shows this gap between the strategic vision and operational capability is consistently present. Limited and delayed financing, lack of health workers, shortcomings in Community Midwife program, disorganized and weak departmental structures, weak information use, and a lack of contextualized community engagement hindered implementation.

The experience has a policy lesson for the broader. To create a second strategy is not likely to improve the health of children unless the government's systems can be relied upon to fund, staff, supervise, provide, coordinate, monitor and modify the strategy. The linkages between poverty, population and children's health are also systemic. The lack of resources due to poverty hinders access to nutritious food and education, health care, sanitation, and family planning. A poor maternal and child health situation then can impact on human-capital development and on the economic productivity of the household. High fertility puts strain on household and public resources, while child survival, women's education, reproductive autonomy, service availability, and socioeconomic security all affect fertility. It is therefore impossible to make a single cut in this cycle.

The best response is a multi-faceted intervention at a number of points at once. The provision of maternal and child health services should be unified, and extended to people living in remote areas. Health workers need to be supported, they should not be posted. The nutrition interventions need to be linked to prevention and treatment. Social protection should protect vulnerable households against shocks that have a negative impact on the maternal and child diet. Gender equity in education and empowerment of women should be seen as an essential enabler of health. Food security, water and sanitation, voluntary family planning, primary health care and poverty reduction should be regulated as complementary parts of single human-development strategy. Equity has to be the organizing principle for Balochistan, in particular. District and community averages may mask the high levels of nutrition and survival risk in specific districts and communities. Resources should be distributed on the basis of need, geographic location, level of deprivation, skills shortages, burden of disease, and not the population size.

Finally, enhanced child health and nutrition is not just a public-health goal. It is an investment in the human capital and social stability, educational achievement, economic productivity and intergenerational equity of Pakistan. Today's kids will become tomorrow's adults and how they are now healthy and nutritious will determine how they will be able to function as adults. A society that allows poverty, where children live, or their gender to affect their chances of life and healthy development creates inter-generational inequality. An effective health and social system that can stop that process can turn instead turn child survival into child thriving.

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