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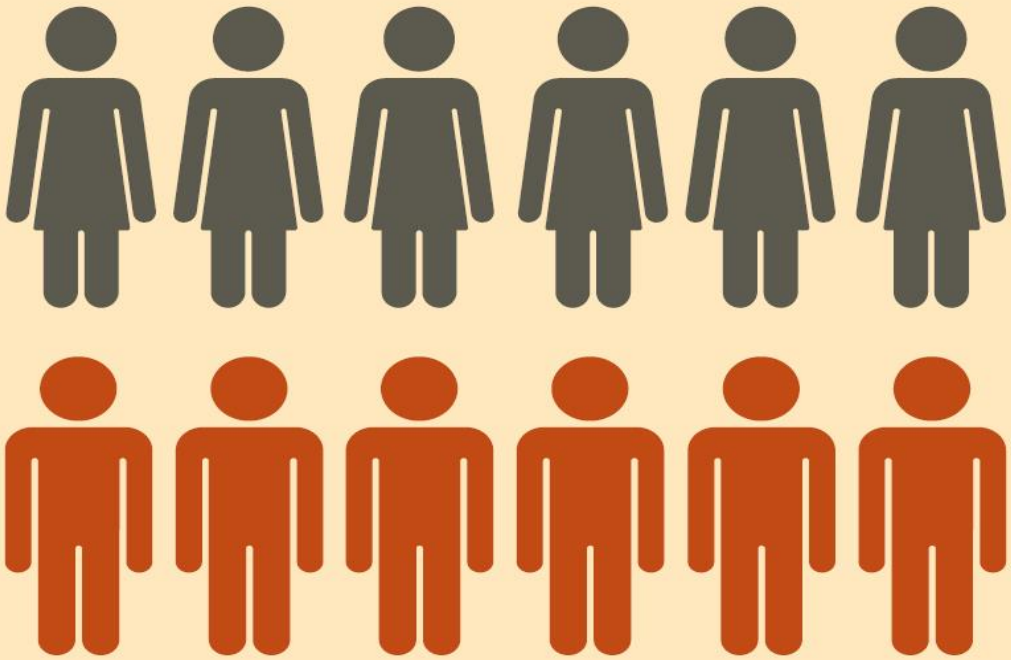
Gallup Pakistan
Health Cyber Letter

POPULATION AND HEALTH IN PAKISTAN



Editor's Note

The demographic transition provides explanations on different population dynamics where societies transition from high birth and death rates to low birth and death rates. Declining fertility and mortality rates have contributed to population declines over time. In a few high-income countries, what's also particularly concerning is that low fertility rates are leading to negative growth rates in the population which can have damaging economic repercussions in future. While fertility and mortality rates are two concrete ways to describe changes in the demographic transition, the drivers of these rates are often complex structural, social, and economic factors such as different wages and education levels as well as value systems to name a few, which deeply influence the ways in which fertility choices are made.

Pakistan is the 5th most populous country in the world with a fertility rate of 3.6 births per woman.[1] The population projections by the Institute of Health Metrics and Evaluation (IHME) place Pakistan at a vulnerable position by the next century as we are set to witness an approximately 360% forecasted increase in the population aged 60-70 which could pose significant threats to a country with a fragmented healthcare system. The weaknesses in overall health governance, service-delivery, information systems, shortage of human resources and financing, will inevitably lead the country to suffer from a population explosion and exacerbate the situation for the overly stretched healthcare system.[2]

For Pakistan, its epidemiological transition also represents a shift to an increase in noncommunicable disease related deaths from 2010 to 2019 with ischemic heart diseases causing 2.1, diabetes causing 2.9, and chronic kidney diseases causing 1 more death per 100,000. The burden of disease because of NCDs coupled with the population projections can have economic, social, and environmental implications for the country with lasting intergenerational impacts.

In this edition of our Health Cyberletter, we provide some insights into the population structure of Pakistan through data projections made by the Institute of Health Metrics and Evaluation. In tandem, we also provide a few data points representing population behaviors in Pakistan, through Gallup Pakistan's Health Surveys. Both data sources reinforce the need to address critical public health challenges which particularly render the country vulnerable in terms of its population and disease patterns. Given the stage at which Pakistan is in, both, in its demographic and epidemiological transitions, it's necessary for decision-makers to take more concrete action now to prevent dire health and economic consequences in future.

Mishalle A. Kayani

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[1] Hussain, I., Nausheen, S., Rizvi, A. and Ansar, U. (2022) "*Distance-Quality Trade-Off and Choice of Family Planning Provider in Urban Pakistan."* International Health 2023; 15: 428–434

[2] Zafar, S. & Sheikh, T.B. (2014). "*Only Systems Thinking Can Improve Family Planning Program in Pakistan: A Descriptive Quantitative Study."* International Journal of Health Policy Management. Vol.3(7). 393-398

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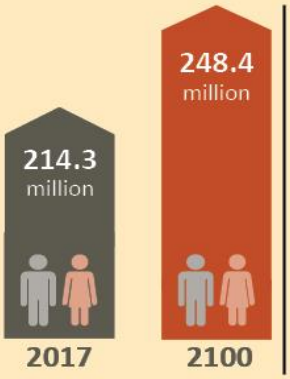
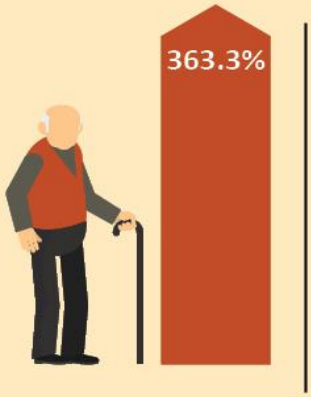


From 214.3 million in 2017 to 248.4 million in 2100, the population of Pakistan is forecasted to increase by almost 16% in 83 years



A staggering 363.3% increase is forecasted in those aged 60-70 in Pakistan by 2100, along with a 57.1% decline in those aged less than 30

Owing to improving national and international health standards, facilities and practices, the IMHE expects Pakistan's average life expectancy to increase by more than 10 years for both men

An increase in deaths can be observed by non-communicable diseases (NCDs) between 2009 and 2019, with ischemic heart diseases causing 2.1, diabetes causing 2.9, and chronic kidney diseases causing 1 more death per 100,000.

2.1 per 100,000

2.9 per 100,000

1 per 100,000

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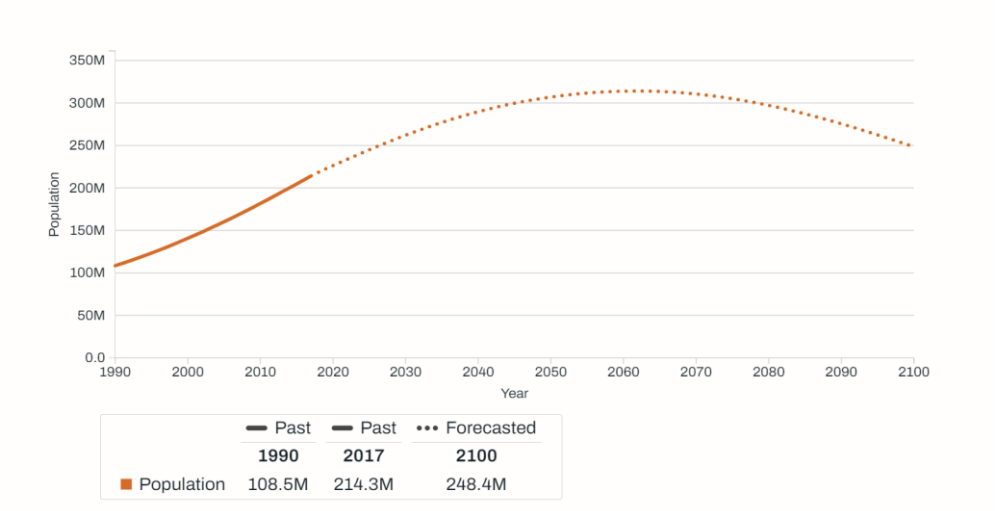
Source: Institute for Health Metrics and Evaluation (IMHE)

Note: The forecasting was done based on the Global Burden of Disease 2017 results.

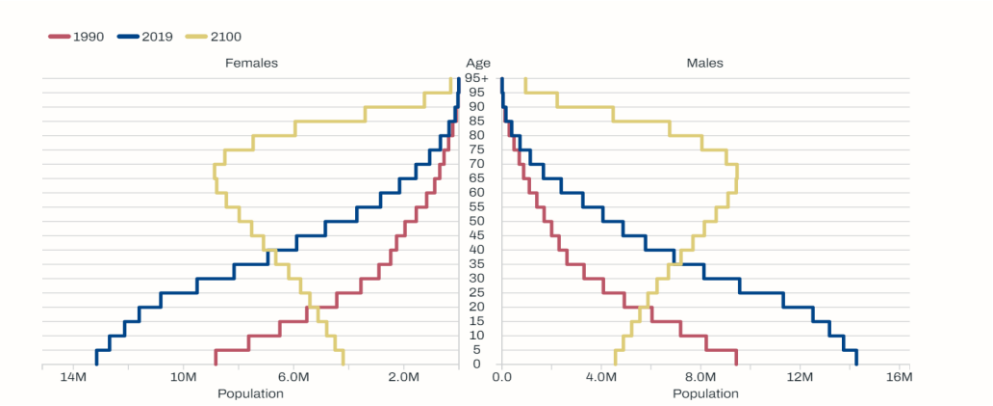
The Institute for Health Metrics and Evaluation (IMHE) is a research institute founded by the Bill and Melinda Gates Foundation, working in global health statistics and impact evaluation. [3]According to IMHE, the population of Pakistan is expected to rise steadily until around 2060, followed by a decline in the subsequent forty years.

1. **Population forecast for Pakistan: From 214.3 million in 2017 to 248.4 million in 2100, the population of Pakistan is forecasted to increase by almost 16% in just 83 years.**



Source: Institute for Health Metrics and Evaluation (IMHE)

2. **Forecasted Age-wise Population Distribution: A staggering 363.3% increase is forecasted in those aged 60-70 in Pakistan by 2100, along with a 57.1% decline in those aged less than 30.**



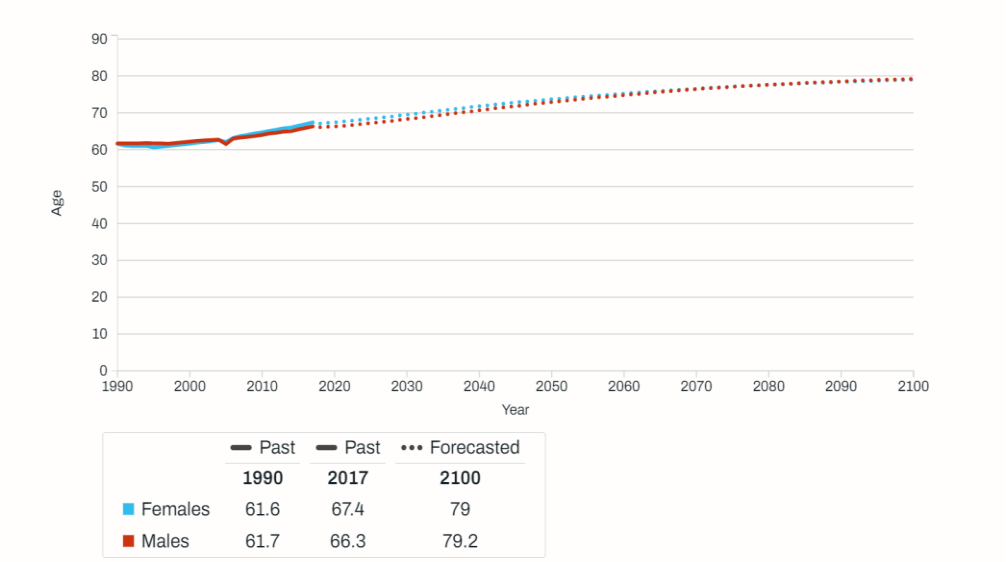
Source: Institute for Health Metrics and Evaluation (IMHE)

[3] "Pakistan." Institute for Health Metrics and Evaluation, www.healthdata.org/research-analysis/health-by-location/profiles/pakistan

This predicted increase in the number of older citizens and decrease in the younger population could help explain the downward slope of Pakistan's forecasted population, post-2060. The rate of population growth falls as the overall make-up of the population skews towards older aged individuals.

While this could be a positive sign for those worried about the high population growth in Pakistan in 2024, an inconsistent population make-up could produce unwanted economic and social results.

3. **Forecasted Life Expectancy: Owing to improving national and international health standards, facilities, and practices, the IMHE expects Pakistan's average life expectancy to increase by more than 10 years for both men and women;** from 67 for females and 66 for males in 2017, to around 79 for both in 2100.



Source: Institute for Health Metrics and Evaluation (IMHE)

This would bridge the gap between the life expectancy of an average Pakistani and the global average, which was 72.5 in 2017 and is expected to rise to 82 in 2100, according to Statista[4].

4. **Causes of Death in Pakistan**

There are positive signs for Pakistan as deaths by some of the most prevalent non-communicable diseases decline between 2009 and 2019, with stroke causing 2.5 fewer deaths per 100,000 people.

A decline of 47.1 deaths per 100k caused by neonatal disorders also presents a positive picture in terms of maternal healthcare in Pakistan. Tuberculosis also led to 13.7 fewer deaths per 100,000 people over the ten years, which is a promising sign.

[4] https://www.statista.com/statistics/805060/life-expectancy-at-birth-worldwide/

However, an **increase in deaths can be observed by non-communicable diseases (NCDs) between 2009 and 2019, with ischemic heart diseases causing 2.1, diabetes causing 2.9, and chronic kidney diseases causing 1 more death per 100,000**. While these numbers may seem small, NCDs contribute to 644 deaths per 100,000 in Pakistan every year.[5] According to a 2022 study by the World Health Organization, they contribute to 58% of all deaths in Pakistan.[6]

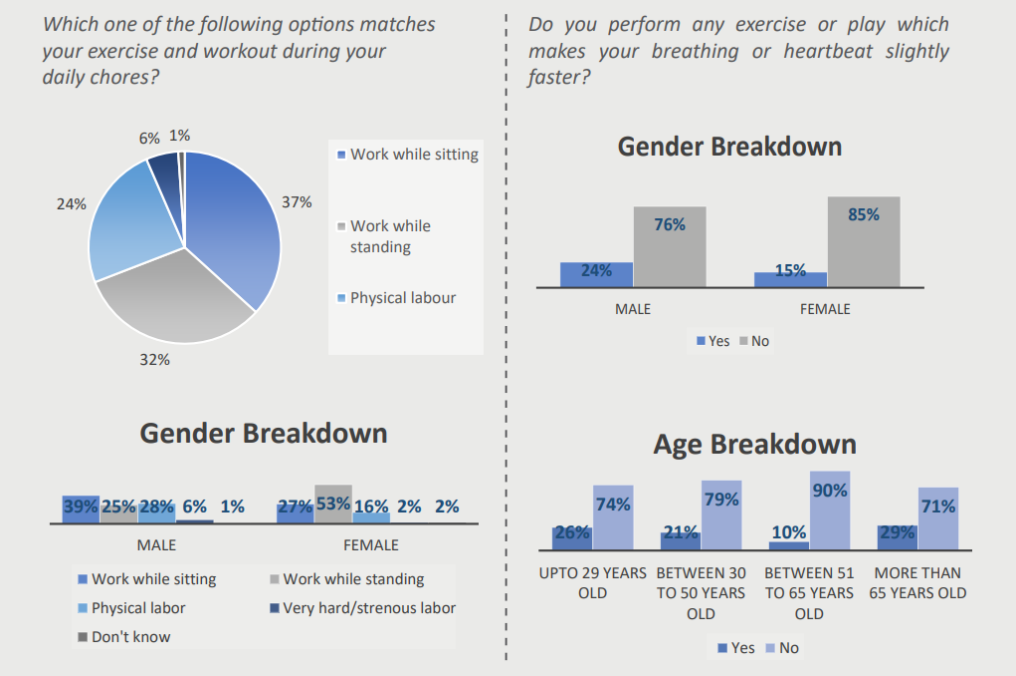
Communicable, maternal, neonatal, and nutritional diseases
Non-communicable diseases

Cause	2009 rank	2019 rank	Change in deaths per 100k, 2009–2019
Neonatal disorders	1	1	↓ −47.1
Ischemic heart disease	2	2	↑ +2.1
Stroke	4	3	↓ −2.5
Diarrheal diseases	3	4	↓ −21.3
Lower respiratory infect	5	5	↓ −14.7
Tuberculosis	6	6	↓ −13.7
COPD	7	7	↓ −3.7
Diabetes	10	8	↑ +2.9
Chronic kidney disease	9	9	↑ +1.0
Cirrhosis liver	8	10	↓ −1.1

Source: Institute for Health Metrics and Evaluation (IMHE)

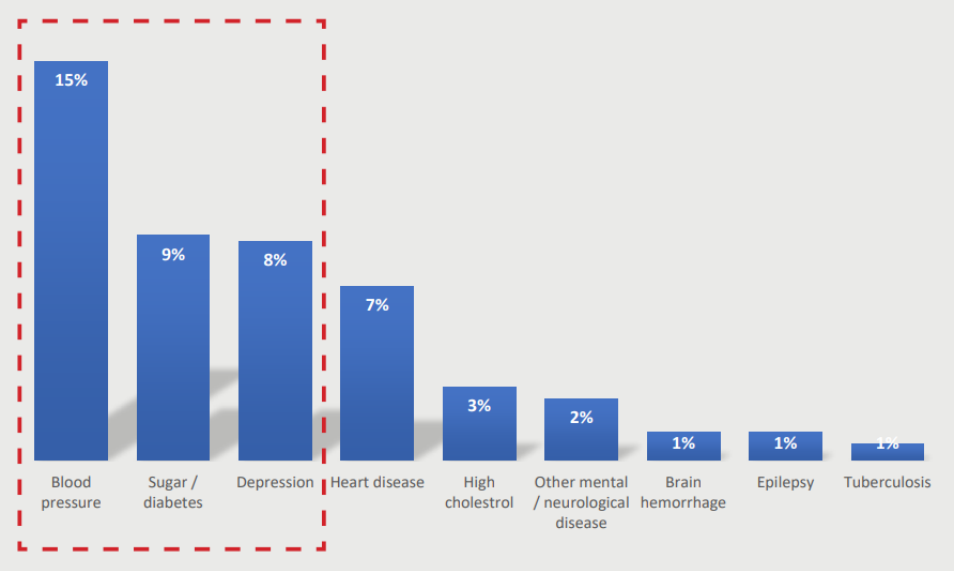
The rise in NCDs in Pakistan poses several challenges for a country with overburdened healthcare systems. Specifically looking at risk factors for NCDs, we have observed through data from Gallup Pakistan's Health Surveys that although physical activity is linked with positive health outcomes, people don't seem to be getting much of it in Pakistan. According to a nationwide survey conducted by Gallup Pakistan in 2022, that more than one-third of participants (37%) worked mostly while sitting and female participants were twice as likely to work while standing compared to their male counterparts (53% vs. 26%). Three-fourths of the population, across genders and age-groups, also reported not performing any activities that increased breathing or heart rate.

[5] https://jogh.org/2023/jogh-13-03045
[6] https://www.emro.who.int/emhj-volume-28-2022/volume-28-issue-11/burden-of-noncommunicable-diseases-in-pakistan.html



Source: Gallup Pakistan Survey, 2022

The self-reported figures of blood pressure and diabetes being the most prevalent NCDs among the Pakistani population also align with the data provided by the WHO and IMHE. These statistics further highlight the importance of tackling the increasing rick of NCDs among the Pakistani population, and the urgent need to raise awareness in the public not only about the diseases, but also lifestyle measures that could be adopted to decrease their prevalence.



Source: Gallup Pakistan Survey, 2022

GALLUP PAKISTAN PUBLIC HEALTH PROGRAM

Gallup Pakistan formally introduced the Gallup Pakistan Public Health Program earlier this year. Through this dedicated space, we hope to act as catalysts of change in the public health landscape by using innovative and collaborative solutions to tackle complex problems in the country.

Under this program, the streams of work currently include:

1. Let's Talk Public Health
2. Gallup Pakistan and CDC Sponsored Projects: Recent developments include the Cause of Death (COD) Training and Enhancing Integrated Mortality Surveillance Workshop held in Islamabad from February 6 – February 10, 2023
3. Gallup Pakistan and Digital Vaccine Register Project
4. Gallup Big Data Analysis of Pakistan Statistical Yearbook – Healthcare in Pakistan (2010 – 2020)
5. Gallup Big Data Analysis of Pakistan Statistical Yearbook – Live Births (2018 – 2020) – Pakistan Demographic Survey 2020
6. Gallup Pakistan 40-year report on Health

One of our pioneering initiatives as part of the Public Health Program is the ***"Let's Talk Public Health"*** series which was launched in March 2022. Through this platform, we conduct insightful conversations with experts/researchers/practitioners in the field, on public health challenges that Pakistan is facing today and we hope we can find ways to reimagine the concept of health as well as make meaningful contributions to the public health discourse in both, Pakistan and globally.

Links to our previous episodes can be accessed below:

- *Episode 1: Lifestyle and Non-communicable diseases (NCDs) – Conceptual, Empirical and Practical Perspective by Dr. Ijaz Gilani. https://youtu.be/uJcYQIj3GH4*
- *Episode 2: Pakistan's Healthcare Market, Medical Devices and Digital Health by Hammad Ijaz. https://youtu.be/Wz8QWExlHGg*
- *Episode 3: Health Perception Survey - WiN International and Gallup Pakistan by Mishalle Kayani and Laila Waqar. https://youtu.be/lFQp6Qp6GrQ*
- *Episode 4: Value of Community Co-design for Vaccine Confidence Interventions - A Case from Karachi by Rubina Qasim.: https://youtu.be/7TqlL3cM17A*
- *Episode 5: Science Behind Artistic Processes (Conducive Tools for Health Sector) by Dr. Habib Afsar. https://www.youtube.com/watch?v=1ZWK0EhZyD8*
- *Episode 6: Family Planning in Pakistan: Issues, Progress and the Way Forward by Dr. Adnan Khan. https://youtu.be/LyQfFv0w8oA*
- *Episode 7: The Menace of Self-Citation: An Audit of Two Years from Journals of KPK by Dr. Umema Zafar. https://youtu.be/UZrCBreD8No*
- *Episode 8: International Health Regulations (IHRs) and Pakistan by Dr. Saeed Ahmad. https://www.youtube.com/watch?v=t9sZOnzfiS8&t=64s*
- *Episode 9: Migration and Health by Dr. Roomi Aziz. https://www.youtube.com/watch?v=E89KBuiU52E*
- *Episode 10: Dispelling Development Myths: The Power of Community Engagement by Dr. Ayesha Khan. https://www.youtube.com/watch?v=WtFXmrnazzc*

- ***Episode 11: Nutrition and Health in Pakistan: A Conversation with Mishalle A. Kayani and Zainab Khan from Gallup Pakistan. https://www.youtube.com/watch?v=4LuHd77lK-M***

In our 11th episode of our "Let's Talk Public Health" series, we discussed findings from Gallup Pakistan's 7th Health Cyberletter, which focused on health and nutrition in the country. The discussion included unpacking the cultural and regional influences on the perceptions of diet and health for an average Pakistani. In addition to this, we discussed changes in nutritional preferences and how these have been shaped by socio-economic influences over the years. For the last section of our talk, we explored the possible social policy actions that could encourage adopting healthier nutritional habits to improve the overall health status of Pakistan.

In addition to our talk series, we've worked on several ***research projects with the Centers for Disease Control (CDC).***[7]

Project: ***Survey of Social and Behavioral Determinants of COVID-19 Vaccination Uptake and Evaluation of On-going National and Subnational Programming to Increase Demand for COVID-19 Vaccines. 2021***

Description: The project aimed to prepare for the rollout of COVID-19 vaccines by assessing social and behavioral determinants for under vaccination in the EMRO region. The multi-country assessment focused on understanding determinants of demand for COVID-19 and other vaccines among priority populations, particularly the role of rumors and misinformation on behavior, and a secondary focus on challenges in vaccine service delivery faced by healthcare workers and program administrators. This project also evaluated ongoing regional, country-level, and subnational planning efforts to introduce COVID-19 vaccines to high priority populations of healthcare workers, adults over 65, and high-risk adults. An important aspect of this project was data triangulation- collecting and reviewing diverse sources of data to compare, contrast, and develop a fuller picture of demand for COVID-19 vaccines in each selected country.

Project: ***A Cross-Sectional Survey on COVID-19 Knowledge, Attitudes, Practices (KAP) and Resiliency in Pakistan. 2021-2022***

Description: The goal of this study was to provide a nationally and regionally representative comprehensive understanding of knowledge, attitudes, and practices (KAPs) around COVID-19 as well as the mental health impacts and other personal effects of the pandemic by providing context specific evidence to help address COVID-19 more effectively. Measuring key cognitive and behavioral factors associated with COVID-19 will help inform recommendations for effective public health management of the disease, such as behavior change strategies, communication strategies to counteract misperceptions around COVID-19, address stigma, community and home-care strategies, and the deployment of food or cash assistance, to vulnerable households.

[7] Funding for this conference was made possible (in part) by the Centers for Disease Control and Prevention. The views expressed in written conference materials or publications and by speakers and moderators do not necessarily reflect the official policies of the Department of Health and Human Services, nor does the mention of trade names, commercial practices, or organizations imply endorsement by the U.S. Government.

Project: ***Track and Trace of COVID-19 Suspected Cases – Pilot Program Working with Faith-Based Organizations. 2022***

Description: Engaging faith communities to advance COVID-19 risk communication and mitigation represents a pivotal opportunity to accelerate pandemic control. The project goal was to pilot a program in which contact tracing and advocacy around non-pharmaceutical intervention (NPIs) is done by FBO's and lessons can be learned and shared with policy-makers dealing with COVID-19.

Project: ***Estimating Excess Deaths and Improving Mortality Surveillance and Civil Registration Systems in Pakistan during COVID-19. 2022-2023***

Description: This project aims to estimate and improve the capacity for estimation of excess deaths and their causes in selected areas of Pakistan; understand and inform as to causes of increases in preventable deaths; and to attempt to integrate relevant partners and systems to build sustainable capacity in mortality surveillance and in National Public Health Institutes.

Cause of Death (COD) Training *(Monday, February 6 to Wednesday February 8, 2023)*

Over the course of 3-days, health stakeholders such as doctors from public and private hospitals, the district health office (DHO), Ministry of Health (MoH) and the Civil Registration and Vital Statistics Unit (CRVS) in Islamabad, participated in a training module led by the Centers for Disease Control and Prevention (CDC-US) with Gallup Pakistan's support. The technical training focused on assigning cause of death, the use of ICD-10/11 coding for maternal mortality (MM) and perinatal mortality (PM), and birth and death record assessment and management. Participants also took part in practical exercises using digital platforms like DORIS and AnaCOD as well as group case studies to appropriately fill out death registration forms and discuss mortality management with respect to participants' institutions.

Enhancing Integrated Mortality Surveillance Workshop *(Thursday, February 9 to Friday, February 10, 2023)*

On February 9 and 10, 2023, Gallup Pakistan and the Ministry of National Health Services and Coordination held a workshop in Islamabad to discuss potential ways to strengthen mortality surveillance in Pakistan. Participants included doctors from public and private hospitals in Islamabad, development organizations and other key actors involved in health surveillance and management systems in Pakistan. Participants had the chance to learn from insightful presentations on existing health infrastructure which included detailed information on data collection processes. In addition to this, participants also actively engaged in group exercises which involved the identification of problems as well as solutions to problems in current surveillance systems at different levels of implementation ranging from the community level up to the facility and institutional levels.

Lastly, during this year we also worked on a ***Digital Vaccine Register Project***, the details of which, you can find below:

The ***Zindagi Mehfooz*** **(ZM)** application has been designed as a digital repository of enrolment and vaccination records of women and children on a web-based dashboard, currently being leveraged as a micro-data collection tool in the health centers of Sindh, Pakistan. The scope of the research study was to evaluate the impact of the application on immunization service delivery, registry coverage, uptake of immunization services, and data use patterns.

The qualitative aspect of the evaluation included a series of focus group discussions, key informant interviews, and observations across health facilities/offices in the districts of Jacobabad, Shikarpur, and Naushahro Feroz with the goal of understanding the perceptions of all the stakeholders involved (ZM staff, caregivers, vaccinators, supervisors/coordinators, district managers, and provincial managers) regarding the use and impacts of the ZM application.

Gallup Big Data Analysis of Pakistan Statistical Yearbook – Healthcare in Pakistan (2010 – 2020) *https://gallup.com.pk/wp/wp-content/uploads/2022/12/Health-pr.pdf*

As a developing country, Pakistan has been struggling with developments in the health sector. Even though there has been constant development happening, the country still has a long way to go. Undertaking an analysis of facts and figures available in The Pakistan Statistical Yearbook 2022 published by the Pakistan Bureau of Statistics, we provide an overview of the growth in the health sector over the last decade.

Key Findings:

(1). The number of health institutions in Pakistan increased by 10% from 2011 to 2020.
(2). Almost 37% increase in the number of beds was seen in health institutions from 2011 to 2020.
(3). 61% increase in the number of doctors as compared to 135% increase the number of dentists in the country from 2011 to 2020.
(4). 69% increase in lady health visitors, 50% increase in the number of nurses and 40% increase in the number of midwives was seen in the previous decade.

Gallup Big Data Analysis of Pakistan Statistical Yearbook – Live Births (2018 – 2020) – Pakistan Demographic Survey 2020

This series aims to present the important learnings from the Pakistan Demographic Survey 2020 for policy makers, the public, as well as for marketers in an easy and understandable way. In particular, this edition looks at number of Live Births from 2018 to 2020. The total number of live births over a period of time can have implications for state of healthcare across the urban-rural divide, and between provinces, and the age stratification can tell us what age group of women are having the greatest successful pregnancies. The series' main aim is to provide data. Implications of these data points for development sector as well as wider socio-political ramifications is something we would like to trigger in relevant circles.

Key Findings:

(1). Number of live births by age of mother: During 2018-20, women in their late twenties delivered the highest number of live babies, at 31% of the total number of live births.

(2). Number of live births by place of delivery and age of mother: Nearly 1 in 4 Pakistani children (24%) were born at home between 2018 and 2020. 65% of live births in Balochistan were homebirths (greatest proportion out of all provinces).
(3). Number of live births by type of attendant at birth and age of mother: Between 2018-20, 60% of children born in Pakistan were delivered by doctors. 16% were delivered by traditional birth attendants (Dai) and 12% by nurses. Out of live births conducted under a doctor's overview, 60% took place in rural areas while 40% were in urban areas.

In addition to all the initiatives, Gallup Pakistan is also working on producing a ***40-year report on Health in Pakistan*** which is a compilation of findings from health research conducted by the organization over the last 4 decades.

For any queries, please contact:

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