

EMPOWERING CHANGE

INSTITUTE FOR GLOBAL HEALTH AND
DEVELOPMENT'S YEAR-END REVIEW



THE AGA KHAN UNIVERSITY
INSTITUTE FOR GLOBAL HEALTH
AND DEVELOPMENT



. ANNUAL 2023 .



MESSAGE FROM THE DIRECTOR

Dr Zulfiqar Bhutta

DIRECTOR IGHD

AGA KHAN UNIVERSITY

“ I write to you at the end of a busy and productive year for the Institute for Global Health & Development (IGHD). When I last penned a message a little over a year ago, Pakistan was reeling from the devastating impact of unprecedented floods which displaced millions. While the acute crisis may have abated somewhat, the ripple effects on the lives and livelihoods of millions continue to be felt. We at the IGHD pivoted our work to respond to this challenge. Two major national conferences on this topic in December 2022 and November 2023 were accompanied by five major international consultations to consider issues of relevance to Pakistan, the AKDN and low- and middle-income countries at large. These workshops strategically placed in East Africa, Middle East, Pakistan and the UK focused on various domains of climate change related to health, food security, nutrition and humanitarian response, as well as research and evidence gaps. IGHD academics spearheaded several initiatives including developing a major gap map on climate associations and impact and strategies for promoting climate resilience and novel knowledge syntheses to inform policy. We welcomed many collaborators and agency leads to AKU and our field sites to see firsthand the beginnings of a program on climate solutions focused on the poorest of the poor and gender equality.

None of this would have been possible without the scholarship of IGHD faculty and students, to whom we owe so much. You will see a glimpse of their excellence in this Newsletter, and of course we welcome visitors to the campus. ”

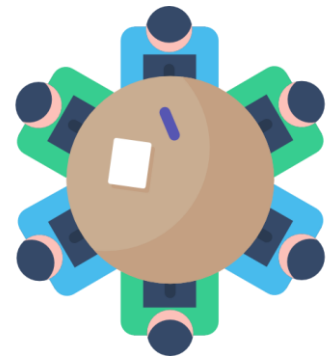


INSTITUTE FOR GLOBAL HEALTH AND DEVELOPMENT

WORKSHOPS & CONFERENCES

EXPLORING FRONTIERS

IN-DEPTH LEARNING WORKSHOPS AND CONFERENCE
ON CLIMATE CHANGE, ENVIRONMENT AND HEALTH
IN POLYCRISES



01 - CLIMATE CHANGE, ENVIRONMENT, AND HEALTH

July 26 to 28, 2023  Dubai, UAE

This workshop brought together global experts, Aga Khan University faculty, and Aga Khan Health Services partners to explore the impact of climate change, air pollution, and extreme weather events on human health. Participants discussed mitigation strategies, shared research findings, and networked to guide Aga Khan University and Aga Khan Development Network in formulating strategies for population-level adaptation and climate change mitigation.



02 - CLIMATE CHANGE, AGRICULTURE, FOOD SECURITY AND NUTRITION: BRAINSTORMING FOR RESEARCH & ACTION

August 16 to 17, 2023  Nairobi, Kenya

This workshop, held in partnership with relevant Aga Khan Development Network agencies and global climate and agriculture experts, focused on the nexus between climate change, agriculture, food security, and nutrition with a specific focus on the geographies that Aga Khan University and Aga Khan Development Network served. It explored the impact of climate change, including extreme heat, changing seasonality, water availability, soil fertility, and its pathways to impacting human health, nutrition, and development. The workshop also discussed biotechnology, global value chains, and ways for sustainable agriculture targeting the most vulnerable populations and the need for resilient food systems. It aimed to facilitate consideration of interventions to promote food security and relevant research to optimize nutrition for all in complex, long-standing crises.



03 - CLIMATE CHANGE, DISASTERS, HUMANITARIAN ACTION & PREPAREDNESS: BRAINSTORMING FOR RESEARCH & ACTION

November 02 to 03, 2023  London, England

This workshop, which was held in close collaboration with the Aga Khan Agency for Habitat, aimed to discuss the landscape of climate change and its impact on living conditions, conflict/insecurity, population migration patterns, and humanitarian emergencies. This was a common finding then affecting many parts of the world where Aga Khan Development Network and Aga Khan University operated. The workshop also discussed urban and rural response strategies to extreme heat events, floods, and glacial melting, and considered mitigation and adaptation strategies. The workshop also considered the then-current evidence gaps and opportunities for enhanced learning for the Aga Khan Development Network family.



04 - CONSOLIDATING RECOMMENDATIONS FOR ACTION TO ADDRESS CLIMATE CHANGE AND ENVIRONMENTAL HEALTH STRATEGY FOR AGA KHAN UNIVERSITY

November 26, 2023  Karachi, Pakistan

The fourth workshop was held in liaison with the conference on 'Climate, Environment, and Health' on 26th Nov 2023 in Karachi and aimed to finalize the priorities to address the strategy for climate change and environmental health. The goal was to collate prior background work and pool intellectual and other resources to complement investments and partnerships in analyzing the recommendations from the workshops. The expected outcome was a systematic prioritized list of actions and research questions by a specific area that could be a focus of attention over the next 12-24 months, either within existing or fresh projects of the Aga Khan Development Network. This exercise also led to the development of a final white paper of priority areas and recommendations for addressing those priority areas.



ANNUAL CONFERENCE: CLIMATE CHANGE, ENVIRONMENT AND HEALTH



05 - 'CLIMATE CHANGE, ENVIRONMENT & HEALTH IN PAKISTAN: OPPORTUNITIES FOR CHANGE' CONFERENCE HELD BY IGHD

📅 November 26 to 27, 2023 📍 Karachi, Pakistan

The IGHD conference, "Climate Change, Health, and Environment: Opportunities for Change," held in Karachi on November 27, with a preceding launch event on November 26, provided a comprehensive platform for addressing local and regional concerns in climate change and environmental health. Coordinated by Aga Khan University, the Institute for Global Health and Development at AKU (IGHD-AKU), Sustainable Solutions Development Network Pakistan (SDSN-PK), and Aga Khan Development Network (AKDN), the conference brought together a diverse community of global and local experts, researchers, and practitioners. The conference recorded 2615 registrations for the two-day event and saw active participation from 1169 individuals, both on-ground and online.



The conference facilitated in-depth discussions on critical intersections between climate change, health, and the environment, featuring prominent speakers such as Dr Sanjay Wijesekera, Dr Maureen Lichtveld, and Dr Jill Baumgartner. The event was honoured by the presence of distinguished figures, including the President of Aga Khan University, Dr Sulaiman Shahabuddin, who emphasized the university's commitment to addressing the challenges posed by climate change and highlighted the pivotal role of academic and research institutions in developing transformative and sustainable solutions.

“ This conference signifies our commitment to be at the forefront of addressing the pandemic of climate change ”

- Dr Sulaiman Shahabuddin
PRESIDENT
AGA KHAN UNIVERSITY



INSTITUTE FOR GLOBAL HEALTH AND DEVELOPMENT

PROJECTS IN SPOTLIGHT

FIELD BASED PROJECTS

EZAFFAW

EFFICACY OF ZINC FORTIFIED FERMENTED WHEAT FLOUR



PROJECT OVERVIEW

The EZAFFAW project, a triple-blind randomized control trial, involves 1044 participants from two age groups - adolescents (10-18 years) and adult women (19-40 years) - at high risk of zinc deficiency. The study aims to assess the efficacy of zinc fortification in improving zinc status, reducing zinc deficiency, and enhancing metabolic health. Conducted in Mithi District, Tharparkar Sindh, the trial is a collaborative effort with Shoaib Seed Corporation and HarvestPlus, Pakistan.



THE AGA KHAN UNIVERSITY
INSTITUTE FOR GLOBAL HEALTH
AND DEVELOPMENT



FORMAN
CHRISTIAN
COLLEGE
(A CHARTERED UNIVERSITY)



**Project Team visiting mills and kitchen*

MAJOR SUCCESSES/ACHIEVEMENTS

The project faced challenges such as participant recruitment, biochemistry sampling, and managing multiple feeding centers. However, it achieved remarkable successes, including record wheat crop yield, timely completion of baseline data and blood sampling, and positive community engagement. The project also contributed to the distribution of school bags to needy students.

IMPLEMENTATION:

The project's meticulous implementation includes the cultivation of high and low zinc wheat varieties, wheat flour production, zinc fortification, and fermentation techniques for flatbread preparation. A rigorous color-coding system is maintained throughout the process, ensuring unbiased study procedures. The trial involves providing participants with flatbread and a vegetable/pulse dish six days a week for six months.



**Food preparation and delivery*

“ The **EZAFFAW** project exemplifies IGHD-AKU's commitment to innovative research addressing critical health issues. As the trial progresses, the outcomes are anticipated to contribute valuable insights into combating zinc deficiency and promoting overall metabolic health in vulnerable populations. ”



- Dr Jai Das
PROJECT LEADER



**Data being gathered by the team*

EVENTS

The trial's inaugural meeting in September 2023 gathered key stakeholders from government agencies, healthcare providers, teachers, and community representatives. Awareness sessions conducted in schools addressed the causes and effects of zinc deficiency, empowering participants with knowledge on prevention and management.



Muhammad Khan Jamali
PROJECT MANAGER

STATEMENTS FROM THE PROJECT TEAM

“ The importance of conducting an efficacy trial on zinc fortified fermented wheat cannot be overstated. Zinc deficiency is a significant public health issue globally, particularly in developing countries where diets are often lacking in this essential mineral. Fermented wheat has emerged as a potential solution to address zinc deficiencies due to its ability to enhance the bioavailability of this nutrient. However, it is crucial to determine the efficacy of such interventions through rigorous trials to ensure their effectiveness and safety. ”

“ An efficacy trial provides invaluable data on the impact of consuming zinc-fortified fermented wheat on zinc status and related health outcomes, such as immune function and growth in target populations. This information would not only guide policy decisions but also inform scaling-up efforts for broad implementation. Therefore, conducting an efficacy trial on zinc-fortified fermented wheat is essential for evidence-based decision-making and improving public health by combatting zinc deficiency effectively. ”



Syed Anjum Abbas
ASSISTANT MANAGER

THE LAST MILE

COMMUNITY ENGAGEMENT AND CONDITIONAL INCENTIVES TO ACCELERATE POLIO ERADICATION IN PAKISTAN



PROJECT OVERVIEW

The Last Mile project is a groundbreaking initiative by the Institute for Global Health and Development at Aga Khan University, addressing the critical need for community engagement and incentives to accelerate polio eradication in conflict-affected and insecure areas of Pakistan. This quasi-experimental trial employs community mobilization and conditional incentives to motivate behavior change and reduce polio vaccine refusals and zero-dose polio vaccines.

IMPLEMENTATION

The study, initiated in 2022, encompasses geographic information system (GIS) mapping, formative research, and a cluster randomized trial across Districts Central of Karachi, Sindh, and Bannu, KPK, Pakistan. Clusters were formed based on population distribution, and Community Health Committees (CHCs) were established in intervention clusters. CHC members underwent training on intervention specifics, focusing on educating and motivating communities, especially chronic refusals, for polio vaccination.



**Project Team interacting with the community*



Mushtaq Mirani
PROJECT MANAGER

“ Despite so many challenges associated with the strategy of community mobilization through community health committees (CHCs), Community Mobilization and Incentivization strategy becoming the most effective strategy in decreasing Polio Vaccine Refusals and increasing the coverage of zero dose as well. These kind of interventions for childhood immunization can be an effective strategy for behavior change, enhanced acceptance and improve coverage of recommended all health interventions. ”



**Further team interactions within the community*

ISSUES/HURDLES

Challenges during implementation included refusals, doubts about vaccine effectiveness, polio workers' attitudes and hygiene concerns, repeated polio campaigns and widespread misconceptions. Despite these hurdles, efforts were made to address each challenge, emphasizing effective communication and community engagement for a successful vaccination campaign.

MAJOR SUCCESSES/ACHIEVEMENTS

The project successfully reduced polio vaccine chronic refusals and zero-dose polio vaccines in approximately half of the clusters at both trial sites. Incentives were distributed to CHCs that met targets for reducing refusals and increasing vaccination coverage. Benefiting the community as a whole, this unique initiative exemplifies the potential of community engagement and conditional incentives in enhancing public health outcomes.



**Vaccination of children conducted by the team*

EVENTS

Regular one-to-one meetings were conducted by CHC members with fathers, mothers, and key stakeholders, along with monthly awareness sessions. A ceremony held at Major Ziauddin School included distributing incentives to CHCs, attended by local authorities and Polio Programme representatives.



**Awareness sessions conducted by project team*

EXAMPLE OF INCENTIVES



PUBLICATIONS

IEC materials, including pamphlets, were developed for community mobilization sessions. Quarterly reports were submitted to the funding agency, providing comprehensive updates on project progress. Protocol submitted in PubMed.



**Pamphlet Example*

STATEMENTS FROM THE PROJECT TEAM



Farhana Tabassum
CO-PROJECT MANAGER

“ In our commitment to a polio-free world, IGHD stood at the forefront with community engagement, trust-building, and innovative incentives. The project focused on behavior change, eliminating vaccine refusals, and boosting immunization coverage. Let IGHD's legacy continue to inspire a healthier future through participatory engagement and conditional incentives. ”

“ Each vaccination is a triumph in the ongoing fight against this persistent disease. ”

- Zahid Ali Khan
RESEARCH ASSOCIATE



INSTITUTE FOR GLOBAL HEALTH AND DEVELOPMENT

PROJECTS IN SPOTLIGHT

KNOWLEDGE SYNTHESIS AND
TRANSLATION

WOMEN IN SCIENCE



PROJECT OVERVIEW

The Supporting Women in Science initiative, a collaboration between the Institute of Global Health and Development at Aga Khan University and the University of Oxford, aims to bolster research capacity among women scientists from South-Central Asia and Sub-Saharan Africa. Through a competitive training and research fellowship program, the project addresses gender and regional disparities in research capacity, providing a phased training approach for early-career women scientists.

IMPLEMENTATION

The project is divided into three phases. Phase I involves online, self-learning modules, and Phase II evaluates participants based on participatory analysis and summative assessment. Successful candidates proceed to Phase III, where they engage in mentored distant research fellowships under the supervision of mentors from AKU and the University of Oxford. This phase includes financial support of up to USD 15,000-20,000 for implementing research proposals.



ISSUES/HURDLES

Challenges encountered include contracting external organizations, potential low program engagement from busy mentors, and occasional dropouts during Phase I due to the entirely online and self-paced nature. However, these challenges are being actively addressed, emphasizing the importance of flexibility for working women participants.

MAJOR SUCCESSES/ACHIEVEMENTS

The program has seen significant growth, with increasing cohorts and widespread geographic representation. Stats reveal a surge in popularity, receiving over 700 applications for the second round. The project spans 14 countries, and the diverse research areas cover child health, maternal and reproductive health, climate change and health, adolescent health, and health systems. The program has expanded to include a core curriculum course titled "Sustainable Development – Interdisciplinary Approaches."



**Pictures of the Fellows from the first cohort*

“ The programme represents a wonderful opportunity to accelerate and enhance the careers of female clinical academics and scientists in LMICs. In my experience to date, the participants are intelligent, highly motivated, very committed and a pleasure to work with. ”

PROJECT CO-LEAD

Dr Stephen Kennedy
Professor & Director
University of Oxford: OMPHI– Oxford, England





Dr Helen Nabwera
Associate Professor - Pediatrics
AKU-East Africa - Nairobi, Kenya

MENTOR

“ This is my first year as a mentor for the Women in Science program, so it has been a steep learning curve that has been made smooth by the excellent fellow that I am mentoring, as well as the structured and timely support from the program’s operations team. My mentee is very self-driven and keen to learn, so the progress we have made from the start of this interaction to date, has exceeded my expectations. I look forward to continuing this journey with her and watching her develop into a leading Global Maternal Child and Adolescent health researcher. ”



**PARTICIPATION BY WOMEN
SCIENTISTS FROM ACROSS THE
GLOBE**

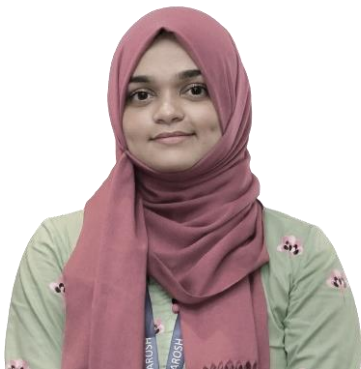
832
APPLICATIONS
TILL DATE

“ The transformative experience of the Supporting Women in Science program provided me with a golden opportunity to cultivate advanced skills for designing and executing top-notch research in alignment with global standards. This empowering journey from day one of my fellowship equipped me to confidently tackle new challenges. The program's visionary approach to addressing gender differentials and biases in research capacity is truly commendable, setting the stage for a brighter, more inclusive future in the realm of science. ”



MENTEE

Dr Arisha Sohail
Lecturer
Biochemistry Department,
Dow University of Health
Sciences
Karachi, Pakistan



PUBLICATIONS

The project has produced an information brochure and scholarly contributions that were presented at the 5th Biennial Scholarship of Teaching and Learning Conference. These publications delve into participant engagement and strategies for supporting teaching of the sustainable development goals.

STATEMENT FROM THE PROJECT MANAGER

The project manager reflects on the initiative as a crucial step in addressing research gaps and offering a transformative opportunity for female scientists from LMICs. Witnessing the brilliance and innovation emerging from the fellows is inspiring, and the initiative creates a powerful global network fostering collaboration and knowledge exchange. The dedication of mentors is commendable, contributing to the success of the program and the growth of fellows. The Supporting Women in Science program stands poised to exert a substantial impact, enhancing the research capacity of women in LMICs.

“ The initiative creates a powerful global network fostering collaboration and knowledge exchange ”

- Dr Narjis Fatima
PROJECT MANAGER

NEWBORN HEALTH

IMPROVING MATERNAL AND NEONATAL HEALTH



PROJECT OVERVIEW

The Newborn project, a collaborative initiative between the Institute for Global Health and Development at Aga Khan University and SickKids, Canada, is a pioneering effort aimed at identifying new evidence and updating existing interventions to improve maternal and neonatal health. Focusing on research gaps in Low- and Middle-Income Countries (LMICs), the project addresses the critical need for evidence-based strategies to enhance outcomes for mothers and newborns.

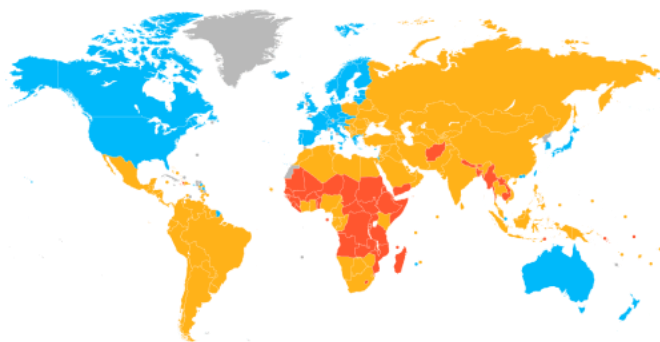
IMPLEMENTATION

Commencing in 2022, the project involved a meticulous scoping exercise, analyzing data from over 60 systematic reviews. Additionally, two de-novo systematic reviews were conducted, exploring interventions related to antenatal care, near-term and intra-partum care, nutritional strategies for pregnant women and neonates, perinatal and newborn care services, and the management of common birth defects. The project prioritized understanding and categorizing data based on geographical settings, with a specific focus on extracting evidence relevant to LMICs.



MAJOR SUCCESSES/ACHIEVEMENTS

Undoubtedly, the journey presented challenges. The necessity for accuracy led the team to repeatedly analyze data from numerous systematic reviews and extract LMIC-specific evidence. This rigorous process, undertaken within strict deadlines, demanded exceptional attention to detail. However, these challenges were met with remarkable success. The team demonstrated outstanding time management, coordination, and efficiency, reflecting a capacity to excel under pressure and deliver exceptional outcomes.



■ Low-Income Countries ■ Lower-Middle Income Countries
■ High-Income Countries

PUBLICATIONS

The project's findings are encapsulated in final draft manuscripts, slated for publication in the second quarter of 2024. These publications are poised to contribute valuable insights to the field of maternal and neonatal health, addressing critical research gaps.



“ Looking forward, we envision enduring collaboration that will pave the way for the attainment of even more significant milestones in our collective mission to advance global health. ”

- Rahima Yasin
PROJECT MANAGER



STATEMENT FROM THE PROJECT MANAGER

The project leader acknowledges the disparity in evidence originating from low-resource settings and emphasizes the urgency of bridging research gaps in LMICs. Expressing gratitude to the dedicated team members, the leader commends their collaborative spirit and tireless efforts. Looking ahead, the leader anticipates continued collaboration and the achievement of even greater milestones in the pursuit of advancing global health.



**Newborn Health Project Team*

ACKNOWLEDGMENTS

The success of the Newborn project is attributed to the dedication and contributions of team members Maha Azhar, Hamna Amir Naseem, Umaima Zaki, Ayesha Arshad, and Zoha Allahuddin. Their commitment to IGHD's mission and collaborative efforts have played a pivotal role in the project's success. The leader expresses anticipation for continued collaboration and the attainment of future milestones.



Maha Azhar

RESEARCH
COORDINATOR



Umaima Zaki

RESEARCH
ASSOCIATE



Ayesha Arshad

RESEARCH
ASSOCIATE



Zoha Allahuddin

RESEARCH
ASSOCIATE



Hamna Amir Naseem

RESEARCH
ASSOCIATE

BREASTFEEDING KNOWLEDGE



TRANSLATION OF RESEARCH-BASED BREASTFEEDING KNOWLEDGE

PROJECT OVERVIEW

The Translation of Research-Based Breastfeeding Knowledge project is a knowledge translation initiative supporting global breastfeeding goals and contributing to UN SDGs. The project aims to improve the accessibility and usability of research-based breastfeeding knowledge, making it freely available in lay-science language. Through human-centered design, the project seeks to organize, curate, and aggregate breastfeeding knowledge, reducing the time spent searching for papers and facilitating the journey from discovery to social impact.

IMPLEMENTATION

The project kicked off with a systematic approach, establishing the Technical Advisory Group (TAG) and formulating plans for the inaugural meeting. The team compiled stakeholder information needs, interviewed symposium participants, and prioritized 28 topics. By the end of 2023, significant milestones were achieved, including completing the search for high-quality reviews for all topics, concluding gap and transparency analysis, and obtaining partial consensus from stakeholders on project deliverables.



ISSUES/HURDLES

Timely responses from stakeholders and the TAG during the consensus-building process presented a challenge. However, the team's dedication and systematic approach helped overcome hurdles.



MAJOR SUCCESSES/ACHIEVEMENTS

Key achievements include a successful kick-off workshop, TAG formation, comprehensive stakeholder consultations, and substantial progress in tasks such as topic prioritization, gap analysis, and consensus building. The project has received a promising response from stakeholders, underlining its potential to inform global breastfeeding policies, programs, and practices. As we navigate the next phase, our team remains committed to leveraging the momentum gained, and ensuring that our endeavours continue to resonate with our target audience.



“ I see this project as a compelling illustration of the significance of conveying credible knowledge to healthcare professionals, decision-makers, advocacy groups, and community members, and ultimately creating a meaningful impact. ”

- Isbah Premjee
PROJECT MANAGER

EVENTS

The project witnessed two TAG meetings, 23 stakeholder consultations with global breastfeeding experts, and an upcoming Virtual Symposium in February 2024. The symposium aims to present the gap analysis and gather complete consensus from TAG and stakeholders.



STATEMENT FROM THE PROJECT MANAGER

The research community needs to transition its focus from solely producing evidence to the crucial task of translating that evidence and fostering positive changes in community behaviours and practices. I see this project as a compelling illustration of the significance of conveying credible knowledge to healthcare professionals, decision-makers, advocacy groups, and community members, and ultimately creating a meaningful impact.

Abeer Tasleem

RESEARCH
ASSOCIATE



Sawera Hanif

RESEARCH
ASSOCIATE



Zoha Allahuddin

RESEARCH
ASSOCIATE

Maryam Hameed
Khan

RESEARCH
ASSOCIATE



ACKNOWLEDGEMENT

Throughout the entire journey, this project encountered various challenges, and I firmly believe that my team made substantial contributions to overcoming them. The culmination of this project is a testament to their relentless efforts. Therefore, I would like to extend my heartfelt gratitude to Maryam Hameed Khan, Abeer Tasleem, Zoha Allahuddin, and Sawera Hanif for their exceptional dedication and contribution

CLIMATE CHANGE

SCOPING SURVEYS



CLIMATE CHANGE DISASTERS AND MENTAL HEALTH INTERVENTIONS

The project team working on the '**Climate Change: Systematic Review on Climate Change Disasters and Mental Health Interventions**' is dedicated to scrutinizing the effectiveness of interventions addressing mental health challenges arising from climate change-related disasters. Starting this journey in August 2022, their meticulous screening of over 9000 studies identified 38 studies meeting inclusion criteria. Despite facing challenges due to team changes, they are currently finalizing the manuscript and summarizing the findings. This effort aims to provide crucial insights for policymakers, healthcare professionals, and researchers, contributing to evidence-based policies and programs that enhance mental health and resilience in communities affected by climate change.



STATEMENT FROM THE PROJECT TEAM



Abeer Tasleem | RESEARCH ASSOCIATE

“ In climate change and mental health, our research illuminates vital insights for policymakers, enhancing evidence-based programs and fostering resilience. ”

“ Evaluating interventions and identifying literature gaps guides evidence-based policies, fostering mental health resilience in climate-affected communities. ”



Ayesha Ali | PROJECT MANAGER

CLIMATE CHANGE AND EFFECTIVENESS OF A WIDE RANGE OF ADAPTATION INTERVENTIONS FOR URBAN HEAT STRESS

The Institute for Global Health and Development (IGHD) undertook a comprehensive systematic review aimed at assessing the efficacy of diverse adaptation interventions addressing urban heat stress. This encompassed an array of strategies, ranging from landscape modifications to alterations in building materials and ventilation systems, as well as initiatives targeting human adaptation to extreme heat. The findings from the review indicate the viability of various materials in facilitating human adaptation to extreme heat conditions. Noteworthy examples include the positive impact of modifying asphalt materials for pavements, implementing green roofs, and incorporating vertical gardens—especially prevalent in high-income countries.

Building upon these findings, IGHD is gearing up for the next phase of its research agenda. The institute is poised to initiate a community trial designed to empirically test the effectiveness of these adaptation strategies, particularly in low-resource settings characteristic of low- to middle-income countries such as Pakistan. This trial is anticipated to provide invaluable insights into the practical applicability and success of these interventions within the unique socio-economic contexts of regions facing heightened challenges posed by urban heat stress. The intention is not only to refine and tailor these strategies but also to contribute to the global discourse on sustainable health interventions in diverse environmental conditions.



STATEMENT FROM THE PROJECT TEAM



“ To understand and address heat stress, our research is more than data and statistics—it's about empowering communities with actionable insights. Together, we're unravelling the threads of knowledge to weave a fabric of resilience for a healthier, heat-resilient future. ”

Maha Azhar | RESEARCH COORDINATOR

“ As we navigate the complex terrain of urban heat stress adaptation, our commitment is to turn knowledge into action. Guided by evidence, we strive to forge a path towards sustainable solutions that can make a tangible difference in communities worldwide. ”

Dr Bhavita Kumari | PROJECT MANAGER



CLIMATE CHANGE HAZARDS AND HEALTH OUTCOMES

Launched in September 2022, the 'Scoping Review on Climate Change Hazards and Health Outcomes' is actively engaged in swiftly mapping and summarizing evidence on climate change effects in Low- and Middle-Income Countries (LMICs). The project places a specific emphasis on understanding how these effects impact marginalized communities and unfold within humanitarian crisis contexts. Despite encountering delays and challenges in maintaining consistency due to shifts in project direction, the team has successfully identified and scrutinized over 150 reviews meeting stringent inclusion criteria. Their comprehensive analysis has not only illuminated existing research but also pinpointed crucial gaps, guiding the formulation of potential adaptation measures aimed at mitigating adverse health effects in LMICs.



Celebrating significant milestones, the team has achieved a thorough gap analysis, presented project data with insights, and is currently in the meticulous process of finalizing the comprehensive manuscript. Reflecting on the project's progress, Isbah Premjee underscores the paramount importance of deeper research into climate change effects and expresses gratitude to the team for their unwavering commitment and valuable contributions in advancing our understanding of the intricate relationship between climate change hazards and health outcomes in diverse and vulnerable communities.

STATEMENT FROM THE PROJECT TEAM



“ Working on the 'Scoping Review on Climate Change Hazards and Health Outcomes' has been a journey of exploration and discovery. In unraveling the complexities, we strive to contribute meaningful insights that empower communities to confront the health challenges posed by climate change. ”

Abeer Tasleem | RESEARCH ASSOCIATE

“ As we navigate the dynamic landscape of climate change impacts on health, our mission is to bridge knowledge gaps and pave the way for effective adaptation. Each challenge encountered is an opportunity to refine our approach, and together, we're forging a path towards a resilient future. ”

Isbah Premjee | PROJECT MANAGER



INSTITUTE FOR GLOBAL HEALTH AND DEVELOPMENT

EXCELLENCE
RECOGNIZED

ACHIEVEMENTS AND AWARDS



Accolades and Acknowledgements received by the IGHD Team



IGHD DIRECTORS DR ZULFIQAR A. BHUTTA AND DR JAI K. DAS NAMED AMONG THE TOP 0.1% OF GLOBAL RESEARCHERS IN 2023

IGHD's Director and Assistant Director, Dr Zulfiqar A. Bhutta and Dr Jai K. Das, are among the top 0.1% globally, as recognized in the 2023 Highly Cited Researchers list. Dr Bhutta is honoured in Clinical Medicine, and Dr Das receives an acknowledgement for a Cross Field Scholarship, reflecting their significant influence in diverse research areas. This prestigious accolade, with only 6,849 individuals globally recognized, underscores their exceptional impact based on a meticulous evaluation of 188,500 Highly Cited Papers. Dr Das, boasting an H-Index over 70, is lauded for 200+ international peer-reviewed papers. Actively shaping global health policy, both contribute to WHO guideline committees.

Dr JAI K. APPOINTED TO THE INTERNATIONAL PEDIATRIC ASSOCIATION'S COMMITTEE ON NUTRITION



IPA International Pediatric Association
Every Child · Every Age · Everywhere

Dr Jai K. Das, a distinguished expert and Assistant Director at the Institute for Global Health and Development, has recently been appointed to the prestigious International Pediatric Association's Committee on Nutrition for the term 2023-2025. Additionally, Dr Das holds the position of Assistant Professor in the Department of Pediatrics and Child Health at Aga Khan University. With his profound expertise and experience in the field of child health and nutrition, Dr Das is poised to make significant contributions in spearheading impactful initiatives and addressing emerging issues in this critical domain.



Dr ZULFIQAR A. BHUTTA AWARDED SITARA-E-IMTIAZ

Dr Zulfiqar A. Bhutta, a distinguished member of AKU's community and Director of the Institute for Global Health and Development, was honoured with the Sitara-e-Imtiaz award on August 14, 2023, Pakistan's 76th Independence Day, in recognition of his unwavering dedication to advancing global health and development.

PRESTIGIOUS RECOGNITION:

DR. ZULFIQAR A. BHUTTA RECEIVES HENRY G. FRIESEN INTERNATIONAL PRIZE IN HEALTH RESEARCH FOR GLOBAL CHILD HEALTH CONTRIBUTIONS

Renowned as a distinguished university professor and the founding director of the Institute for Global Health and Development at the Aga Khan University, Dr Zulfiqar A. Bhutta has been honoured with the esteemed Henry G. Friesen International Prize in Health Research for his exceptional contributions to global child health. The award, established in 2005 by the Friends of Canadian Institutes of Health Research (FCIHR), annually recognizes researchers who have made substantial impacts on health research worldwide. Evaluated for the quality and impact of his research, as well as his contributions to the broader health research community, Dr Bhutta's achievements have earned him this prestigious accolade.



STANFORD UNIVERSITY RECOGNIZES DR BHUTTA AND DR JAI IN THE TOP 2% OF GLOBAL SCIENTISTS

In the 2023 iteration, Dr Bhutta and Dr Jai have been named among the top 2% of scientists globally by Stanford University. This prestigious list, now in its sixth iteration, identifies the world's leading researchers, encompassing standardized data on citations, h-index, and a variety of bibliometric indicators.



WHAT WORKS GLOBAL SUMMIT 2023

DR JAI DAS APPOINTED TO THE SCIENTIFIC COMMITTEE AT WHAT WORKS GLOBAL SUMMIT 2023

Dr Jai Das was invited to serve as a Member of the Scientific Committee at the What Works Global Summit (WWGS) 2023, held in Canada in October 2023. The summit, the largest of its kind, convenes researchers, leaders in evidence-based decision-making, and practitioners to share cutting-edge evidence-synthesis research, research methods, and practice strategies aimed at enhancing the well-being of individuals, families, and communities globally.

IGHD LEADERS TOPPED GLOBAL RANKINGS 2023 FROM RESEARCH.COM

In the 2nd edition of Research.com rankings, Dr Zulfiqar Bhutta and Dr Jai Das from the Institute for Global Health and Development secured the number 1 spot among scientists in Medicine and Social Sciences & Humanities in Pakistan, ranking in the top 1% globally. Additionally, Dr Bhutta and Dr Jai were acknowledged as one of the best scientists of 2023 and one of the rising stars of 2023, respectively.



GRANT SPOTLIGHT

HIGHLIGHTING IGHD'S NEW GRANTS IN 2023

Explore IGHD's Grant Highlights from the Past Year. Discover the Remarkable Projects, Visionary Principal Investigators, and Generous Sponsors Behind Our Impactful Initiatives.



HEAT ADAPTATION

Evaluating Interventions to Help Manage the Health Effects of Heat

Sponsored By



The Wellcome Trust

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EXTREME HEAT AND PREGNANCY

Biological Vulnerability to Extreme Heat in Maternal and Child Health Application



NONALCOHOLIC LIVER DISEASE (NAFLD) SURVEY - SAFAR

A cross-sectional study from Sindh province of Pakistan on the risk factors in Adolescent and young adults

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INSTITUTE FOR GLOBAL HEALTH AND DEVELOPMENT

KNOWLEDGE
DISSEMINATION

EDUCATION

KNOWLEDGE DISSEMINATION THROUGH WORKSHOPS, TALKS, AND ENGAGEMENTS IN VARIOUS EDUCATIONAL FORUMS

EMPOWERING VULNERABLE COMMUNITIES:

Dr JAI DAS AT THE UNIVERSITY OF MICHIGAN'S CLIMATE VULNERABILITY AND HEALTH SEMINAR

Dr Jai Das, IGHD Assistant Director, delivered a keynote at the University of Michigan's Climate Vulnerability and Health Seminar on September 22, 2023. [Access the seminar recording here.](#)



IGHD CONTRIBUTES TO CLIMATE AND HEALTH INITIATIVES

AT WELLCOME TRUST WORKSHOP



Dr Zulfiqar Bhutta, IGHD Director, represented IGHD at a recent Wellcome Trust workshop in Mombasa, September 11-12, 2023. Focused on the impact of climate change on health, the workshop involved project leaders from low- and middle-income countries addressing heat-related health risks. The workshop concluded with a program theory of change, igniting project teams' enthusiasm for implementing fresh ideas, and highlighting the importance of ongoing collaboration in this critical field.

Dr JAI DAS JOINS KEY DISCUSSION ON CLIMATE-RESILIENT HEALTH SYSTEMS IN PAKISTAN

In a key event on September 11, 2023, Dr Jai Das from IGHD participated in a Round Table Discussion in Islamabad. The discussion, focused on building climate-resilient health systems in Pakistan, was chaired by the Federal Minister of Health and organized by the Ministry of National Health Services, Regulations & Coordination (NHSR&C), with the support of the British High Commission and partners. The event aimed to heighten awareness of climate change's impact on public health and foster collaboration for implementing a "Framework of Action" in Pakistan.



DR BHUTTA AND DR DAS PARTICIPATED IN THE

MICRONUTRIENT FORUM'S SIXTH GLOBAL CONFERENCE, "NUTRITION FOR RESILIENCE"

In October 2023, Dr Zulfiqar Bhutta and Dr Jai Das from IGHD participated in the Micronutrient Forum's "Nutrition for Resilience" global conference in The Hague. Focused on challenges like food price spikes and climate-related disasters, the event emphasized the vital link between micronutrients and resilience, especially for vulnerable populations. Discussions included cutting-edge nutrition research and data-driven decision-making. Dr Bhutta and Dr Jai Das highlighted the critical role of nutrition in building resilience

[Click Here for More Information on MNF2023](#)



Dr ZULFIQAR BHUTTA OFFERS INSIGHTS ON

CLIMATE ACTION AND RESEARCH IMPACT AT 'WE DON'T HAVE TIME CLIMATE WEEK NYC'



During We Don't Have Time Climate Week NYC, Dr Zulfiqar Bhutta, IGHD Director, emphasized the vital role of research in tackling the climate crisis. Aligning with IGHD's commitment to the Sustainable Development Goals and the Paris Agreement, his message underscores the institute's dedication to shaping a healthier, more equitable, and sustainable world through research-driven solutions.

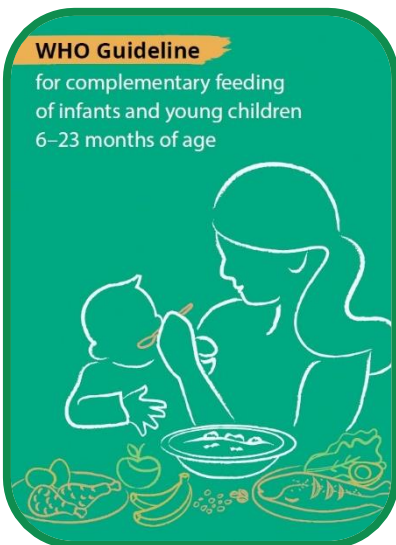
[Watch Dr Bhutta's Panel Discussion Here](#) - Starting at 2:59:42.

IGHD EMPOWERS HEALTHCARE PROFESSIONALS WITH

THE COCHRANE REVIEW WORKSHOP

In September 2023, a team of five IGHD researchers and support staff, including Dr Jai Das, Dr Nadeem Zuberi, Dr Ayesha Arshad Ali, Dr Rahima Yasin, and Mr Akber Ali, conducted a three-day Cochrane review and evidence synthesis workshop in Islamabad. Held at Combined Military Hospital, Rawalpindi, the workshop engaged mid-career healthcare professionals from diverse medical fields. Through interactive teaching sessions, group activities, and presentations, the event facilitated valuable insights and knowledge exchange.





IGHD'S ENHANCE

WHO GUIDELINES FOR INFANT AND YOUNG CHILD FEEDING

The Institute for Global Health and Development (IGHD) played a key role in shaping the latest 'WHO Guideline for infant feeding.' Two systematic reviews by IGHD compared animal milk to infant formula for 6-11-month-old non-breastfed/mixed-fed infants and determined optimal complementary feeding timing. IGHD's contributions enhanced evidence-based recommendations for healthcare providers, policymakers, and program managers, promoting optimal growth and development while preventing malnutrition.

[Click Here for More Information on WHO Guideline](#)

IGHD'S PARTICIPATION AT COP28

NAVIGATING CLIMATE CHANGE'S IMPACT ON NUTRITION AND INFECTIOUS DISEASES

Drs. Zulfiqar Bhutta and Jai Das from the Institute for Global Health and Development, actively engaged in COP28, the 28th annual United Nations climate meeting held in Dubai, UAE. Dr Bhutta contributed insights to a panel discussion addressing the intersection of climate change and nutrition, while Dr Das actively participated in a roundtable focusing on the impact of climate change on infectious diseases. Their involvement underscores IGHD's commitment to addressing the complex challenges at the nexus of climate change, health, and sustainable development.



ADVANCING PEDIATRIC HEALTH:

IGHD'S IMPACTFUL ROLE IN WHO'S GUIDELINE DEVELOPMENT

IGHD had the honour of participating in a pivotal closed-door meeting hosted by the World Health Organization (WHO) on the development of pneumonia and diarrhoea management guidelines for children under 10 years of age. The IGHD team, comprising Dr. Jai Das (Assistant Director), Ayesha Arshad (Research Associate), Kanza Naqvi (Assistant Manager), Zain Hasnain (Research Associate), and Mustafa Zubairi (Research Associate), presented their findings on Children and Diarrhoea. This event, held in Geneva, Switzerland from November 28 to December 1, 2023, aimed to address a crucial gap in existing WHO guidance, specifically focusing on children aged 0 months to 10 years. The meeting's objectives included presenting and discussing key findings from systematic reviews and drafting recommendations for the management of pneumonia and diarrhoea in this age group.



**World Health
Organization**

NURTURING TRANSFORMATION

KEY INSIGHTS FROM OUR CLIMATE CHANGE AND HEALTH WEBINAR



Our webinar, "Climate Change and Health: Impact of Extreme Heat on Women and Children & Possible Solutions," held on July 12, 2023, addressed the critical nexus of climate change and health. Moderated by Dr Zulfiqar A. Bhutta, Director of the Institute for Global Health and Development, AKU, the session featured insightful presentations. Dr Ana Bonnell discussed the effects of heat strain on fetal well-being, while Dr Jai Das presented interventions for managing heat-related health effects in Pakistan. Christopher Burman, a renowned urban technologist, explored solutions for heating and cooling at an urban scale. The webinar underscored the urgent need to recognize and address the health risks associated with climate change, especially for vulnerable populations. Closing remarks were provided by Dr Amina Abubakar, Professor and Director of the Institute for Human Development, AKU.

[Click Here to View the Webinar](#)

Discover the vital intersection of nutrition, food security, and sustainable agriculture in our recent webinar held on December 8, 2023. Chaired by Dr Zulfiqar A. Bhutta, Director of the Institute for Global Health and Development at AKU, this session delved into the core of a healthier, more equitable, and sustainable world. The presentations featured insights from Mr Apoorva Oza, Global Programme Lead in Agriculture and Climate Change at Aga Khan Foundation, on sustainable agriculture practices in rural India; Dr Erick Boy, Leading nutrition expert and research coordinator at HarvestPlus, discussed the journey of biofortification to enhance nutrient content in crops, and Dr Emmanuel Sulle, Director of Research at the Arusha Climate and Environmental Research (AKU-ACER) at the Aga Khan University, shared his experiences from a living environmental lab in Tanzania. We were honoured to have Dr Kausar Abdullah Malik, Caretaker Federal Minister for National Food Security and Research, Pakistan, as our Chief Guest for closing remarks. Stay tuned for more insightful events shaping the discourse on global health challenges from the IGHD community.

[Click Here to View the Webinar](#)

CULTIVATING CHANGE

HIGHLIGHTS FROM OUR NUTRITION, FOOD SECURITY, AND SUSTAINABLE AGRICULTURE WEBINAR



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CELEBRATING THE STELLAR ACHIEVEMENTS
OF OUR STANDOUT STARS IN 2023



MUTI UR REHMAN | Manager Finance
IGHD

With more than 14 years of experience, Muti Ur Rehman excels in project management, business administration, and operations. His extensive experience working with diverse stakeholders makes him a valuable institute asset. Muti' Ur Rehman's expertise in budgeting, financial modelling, team management, and internal control systems plays a crucial role in our organization's success.

AKBER ALI | Manager Administration
IGHD

Akber has consistently demonstrated his commitment to professional excellence and organizational service throughout his decade-long tenure at Aga Khan University. In his current role, he plays a vital role in supporting the Director of the Institute for Global Health and Development (IGHD) by handling various administrative tasks, ensuring the smooth operation of the office, and effectively managing grant schedules. Akber's dedicated efforts in maintaining office resources significantly contribute to the seamless functioning of the IGHD. With a wealth of experience, a strong work ethic, and a commitment to professional growth, Akber stands out as a key contributor to the ongoing success of the IGHD.



RISING STARS

IGHD'S SUMMER INTERNSHIP 2023 UNLEASHES TALENT AND SEEDS FUTURES!



The Institute for Global Health and Development (IGHD) hosted an enriching Summer Internship Programme in 2023, welcoming six talented individuals to join our team. Muhammad Rafay (IBA), Aimen Atiq (IBA), Rumaina Pyarali (Bahria University), Ujala Masood (IBA), Mariam Mairaj (Habib University), and Wajid Ali (IBA) dedicated three months to contributing their skills and enthusiasm across various departments within IGHD.

In July 2023, as the internship program concluded, it marked the end of a transformative journey for most of our interns. However, the dedication and exceptional performance of Muhammad Rafay and Wajid earned them the opportunity to continue their association with IGHD as they were both hired on a part-time basis. This transition not only highlights their commitment but also underscores IGHD's commitment to fostering talent and providing growth opportunities within our organization.

We are proud of the contributions made by all our interns during their time with us and look forward to witnessing the continued growth and success of Muhammad Rafay and Wajid as valued members of our team.



TRAILBLAZING FUTURES

OUR TEAM'S JOURNEY TO NEW HEIGHTS THROUGH
HIGHER EDUCATION



ZAHRA
ALI PADHANI



THE UNIVERSITY
of ADELAIDE

Zahra Ali Padhani, Manager (Research) at the Institute for Global Health and Development, transitioned from Research Assistant to her current role through dedication and collaboration with Dr Jai Das and Dr Bhutta. Holding a master's in Health Policy and Management, she has an impressive publication record in journals like Cochrane, BMJ, and Lancet Global Health. Currently pursuing a Ph.D. at the University of Adelaide, her research focuses on preconception health risk factors among adolescents and their impact on perinatal, maternal, and child health.

FAAREHA

ANSAR SIDDIQUI



JOHNS HOPKINS
BLOOMBERG SCHOOL
of PUBLIC HEALTH



Faareha Ansar Siddiqui, a dedicated professional passionate about enhancing lives, especially in rural Pakistan, began her journey as an intern at the Institute for Global Health and Development. Her exceptional drive secured a permanent role as a Research Associate, where she focused on childhood vaccinations and nutrition. Recognized for her valuable contributions through numerous journal papers and collaborative reports for the World Health Organization, Faareha now brings her academic prowess and extensive research experience to Johns Hopkins Bloomberg School of Public Health, poised to make a substantial impact in global public health.



MARYAM HAMEED KHAN



Maryam Hameed Khan served as a dedicated Research Associate at the Institute for Global Health and Development and has played a pivotal role in diverse projects. Notably, she contributed significantly to an Evidence Gap Map of Interventions for Non-Communicable Diseases among Children and Adolescents. Leading the translation of a breastfeeding knowledge project, she collaborates with the Family Larsson-Rosenquist Foundation. Actively involved in public health, Maryam analyzes trends and assesses the impact of devolution on RMNCAH&N service provision in Pakistan for Countdown 2030. Maryam is currently pursuing her Master of Public Health (MPH) in Epidemiology and Biostatistics at Johns Hopkins University.

SHAZWIN SYED ALI



EMORY
UNIVERSITY



Shazwin Syed Ali, a dynamic Research Coordinator at the Institute for Global Health and Development, was the driving force behind the organization's climate change project. Focused on heat-related challenges, she adeptly prepares research tools, conducts stakeholder analyses, and connects key individuals and agencies. Shazwin's invaluable expertise shapes effective interventions with a real impact. She is currently furthering her education with a Master of Public Health in Behavioural, Social, and Health Education Sciences at Rollins School of Public Health, Emory University in Atlanta, Georgia.



ALISHIA SHAFIQ



Alishia Shafiq, a dedicated Research Associate at the Institute for Global Health and Development, stood out for her invaluable contributions to advancing research. With a specific focus on bridging the gap between human and AI research, she played a crucial role in a paper systematically comparing these domains and studying the decision-making process behind the Community Mobilization and Community Incentivization trials. Alishia's expertise and commitment make her a vital asset. She is furthering her education with a Master of Arts in Forensic Psychology at John Jay College of Criminal Justice in New York.

INSTITUTE FOR GLOBAL HEALTH AND DEVELOPMENT

INSIGHTS
UNVEILED

RESEARCH PUBLICATIONS



List of the research publications featuring the involvement of IGHD. This collection showcases the studies they participated in or contributed to throughout the year.

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THANK YOU



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