magnus Group

MARCH 1-23

VIRTUAL EVENT

INTERNATIONAL PUBLIC HEALTH CONFERENCE

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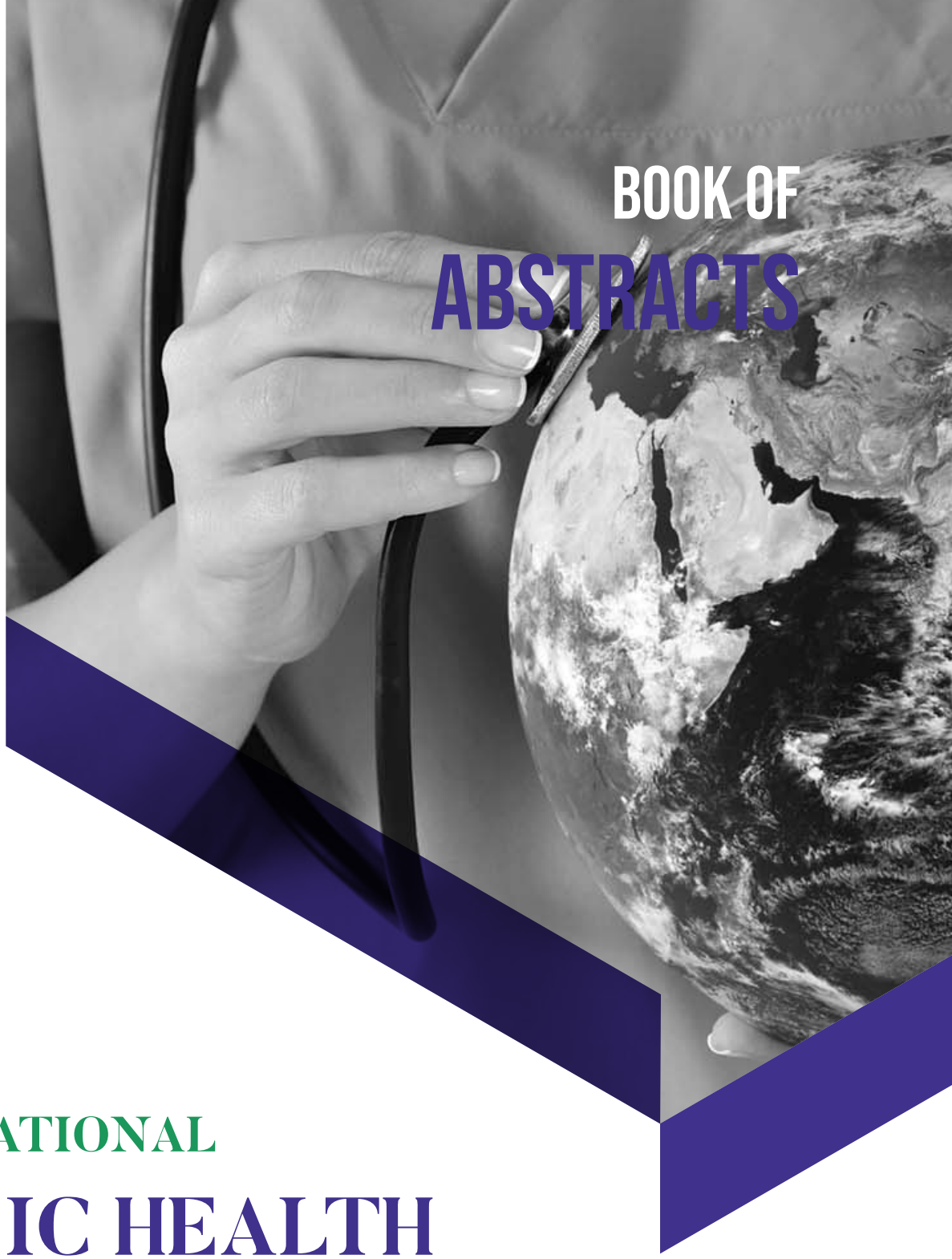

BOOK OF ABSTRACTS

INTERNATIONAL PUBLIC HEALTH CONFERENCE

21-23 MAR

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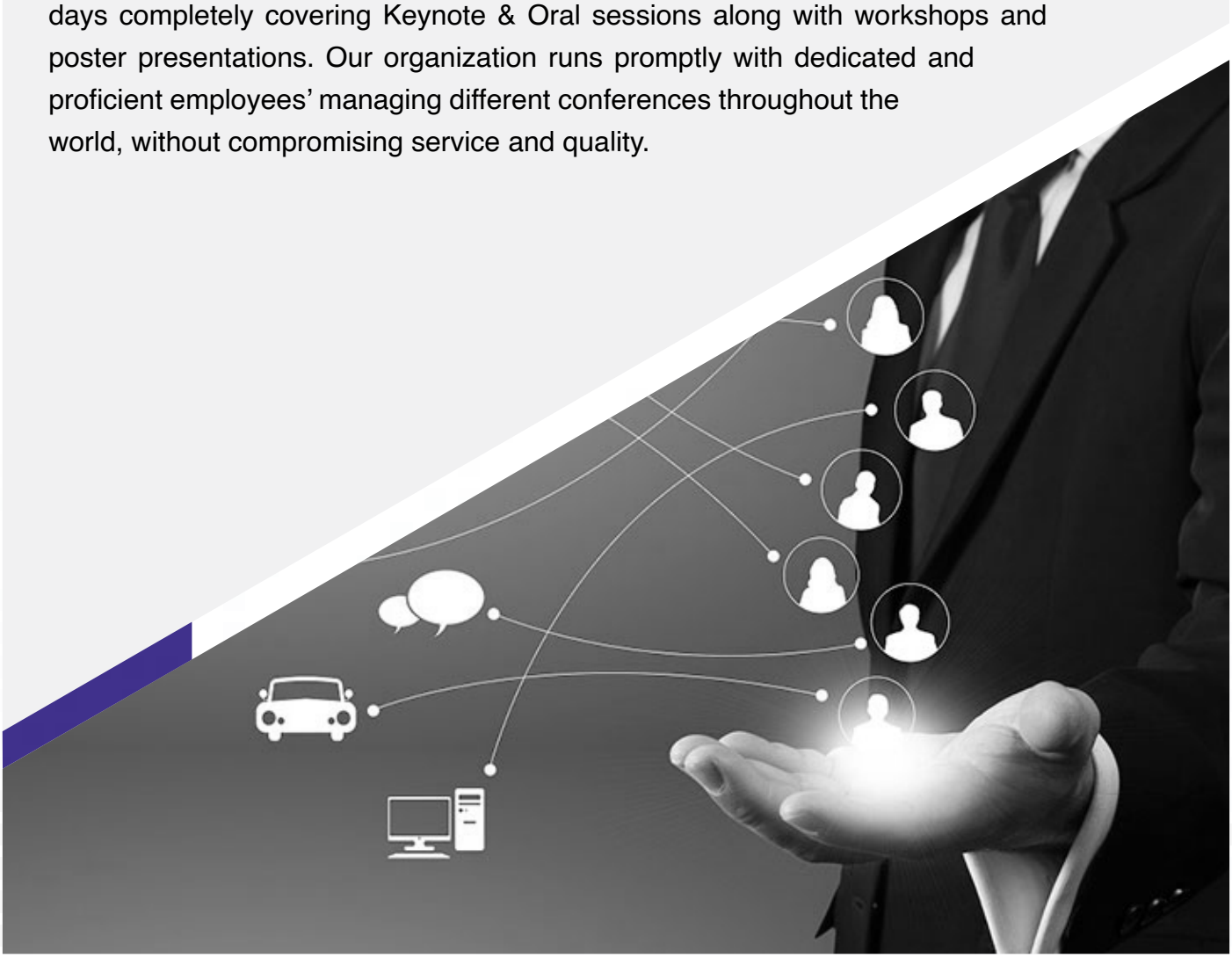
ABOUT MAGNUS GROUP

Magnus Group (MG) is initiated to meet a need and to pursue collective goals of the scientific community specifically focusing in the field of Sciences, Engineering and technology to endorse exchanging of the ideas & knowledge which facilitate the collaboration between the scientists, academicians and researchers of same field or interdisciplinary research. Magnus group is proficient in organizing conferences, meetings, seminars and workshops with the ingenious and peerless speakers throughout the world providing you and your organization with broad range of networking opportunities to globalize your research and create your own identity. Our conference and workshops can be well titled as 'ocean of knowledge' where you can sail your boat and pick the pearls, leading the way for innovative research and strategies empowering the strength by overwhelming the complications associated with in the respective fields.

Participation from 90 different countries and 1090 different Universities have contributed to the success of our conferences. Our first International Conference was organized on Oncology and Radiology (ICOR) in Dubai, UAE. Our conferences usually run for 2-3 days completely covering Keynote & Oral sessions along with workshops and poster presentations. Our organization runs promptly with dedicated and proficient employees' managing different conferences throughout the world, without compromising service and quality.



ABOUT IPHC VIRTUAL 2022

IPHC Virtual 2022 webinar serves as a podium for the interaction between experts in the areas of healthcare around the world and aims in sharing some research and translational studies on various advances in the related fields.

It is expected to bring together both reputable scientists in advanced stages of their and young researches from many related disciplines. The webinar expects many new ideas to emerge at the interfaces between disciplines aiming to solve the most important problems relating to the health and wellbeing of the humanity. With its strong emphasis on innovative approaches, the webinar offers a chance for scientists, academicians, doctors, nurses and physicians working in different areas of healthcare to learn new ideas that could help them advance their own research and forge new professional relationships and collaborations. Our honorary speakers will provide you with the most clinically up-to-date relevant information,

you'll leave better educated and more invigorated than you thought possible.

KEYNOTE FORUM

DAY 01

INTERNATIONAL

PUBLIC HEALTH CONFERENCE

21-23 MAR

Paul Conway

University of Portsmouth, UK

Does pandemic triage undermine trust in the medical system? How lay people and medical practitioners view COVID-19 sacrificial decisions

The COVID-19 pandemic overwhelmed hospitals around the world, leading medical practitioners to face difficult trade-offs analogous to classic sacrificial dilemmas: harming a few patents would save a greater number of people. Such conditions may foster a 'strict utilitarian' approach saving the most lives by prioritizing care for patients with the best chance of survival (Mounk, 2020). However, medical decision-makers may worry that such decisions come across as convening 'death panels' (Truog, et al., 2020). Their concern is justified: laypeople tend to trust moral decision-makers who express emotional concern for individuals and reject sacrificial judgments (i.e., adopt a 'strict deontological' approach, Rom et al., 2017). Yet, healthcare professionals tend to demonstrate less emotional distress and less regret than laypeople when accepting sacrificial harm (Francis et al., 2018). Therefore, healthcare professionals facing COVID-19 sacrificial dilemmas risk appearing callous about sacrificial harm, potentially eroding public trust in the medical system and increasing reactance to medical advice (Kohn, et al., 2000). In the current work, we examined how medical practitioners versus laypeople view COVID-19 sacrificial decisions. In Study 1 (N = 208), we compared a new set of COVID-19 sacrificial dilemmas to a classic dilemma battery (Rom et al., 2017): Participants considered the *pneumonia dilemma* where refusing care to a pneumonia patient will save several healthier patients, the *coma patient dilemma* where removing life-support from a coma patient will free resources to treat multiple COVID-19 patients, and the treatment *dilemma* where administering an experimental treatment will kill a few patients but save many others. They also considered the crying baby *dilemma* where smothering a baby will save townspeople, the motorcycle *dilemma* where killing one motorcycle racer will prevent a fatal pileup, and the drug lord *dilemma* where killing a drug lord will reduce lethal crime. Participants imagined that a decision-maker either accepted or rejected sacrificial harm, and reported perceptions of decision-maker warmth, competence, and morality (Fiske, Cuddy, & Glick, 2006). Results replicated past work: participants rated decision-makers rejecting sacrificial harm as warmer and more moral but less competent than those accepting sacrificial harm, for both classic and COVID-19 dilemmas. Crucially, this pattern emerged for both COVID-19 and classic dilemmas. Next, we surveyed practicing healthcare providers (N = 614) and comparison samples of students (N = 604) and online workers (N = 1402). Participants considered each COVID-19 dilemma, indicated whether sacrificial harm is *appropriate* or *not appropriate*, and how warm, competent, and moral they feel. Contrary to expectations, online workers were more likely to accept sacrificial harm than either healthcare providers or students. Moreover, people who rejected sacrificial harm rated themselves higher in than competence, whereas people who accepted sacrificial harm rated themselves similarly in warmth and competence. However, healthcare providers rated themselves especially high in warmth and competence when accepting sacrificial harm. Finally, in Study 3 (N = 1209) online workers rated healthcare workers who rejected harm as warmer but equally competent to those accepting harm, and rated them differently in terms of focus on individuals and the group. Participants preferred healthcare workers who rejected harm for both their own doctor and to run the hospital, but overall trust was not affected. These findings have implications for trust in the medical system and suggest pragmatic communication strategies for healthcare workers facing difficult choices such as triage decisions during and beyond the pandemic.

Audience Take Away:

- This talk will provide unique insight into triage decisions during a pandemic
- Examining sacrificial decisions and self-perceptions of practicing healthcare professionals
- Examining also perceptions of healthcare professional sacrifices among the public
- Results suggest communication strategies healthcare workers can use to maximize trust in the medical system

Biography

Paul Conway is a Senior Lecturer at the University of Portsmouth, Department of Psychology studying moral decision-making. He earned a PhD from the University of Western Ontario in 2014, was a Postdoctoral Fellow at the University of Cologne 2013-205, and Assistant Professor at Florida State University 2015-2021. He won the 2014 Dissertation Award from the Society for Experimental Social Psychology, the 2014 Governor General of Canada's Gold Medal for Academic Excellence and the 2020 Rising Star Award from the Association for Psychological Science. He has published over 40 articles and been cited over 2000 times.

Michael G. Young and Rana Van Tuyl

Royal Roads University, Canada

The Impact of Covid-19 isolation practices on persons experiencing homeless concurrent disorders: A view from service providers in British Columbia, Canada

This research examines the impact of the COVID-19 virus on the delivery of services to persons experiencing homeless with concurrent disorders (PEHCD). The research involves two stages, a pilot study in Victoria, British Columbia, Canada and a subsequent larger study involving six other cities with large PEHCD populations. This presentation includes data from the completed Victoria pilot study and a summary of the preliminary findings from the expanded project. Participants for Victoria research were recruited by reaching out to known persons in organizations providing services to PEHCD. As an interdisciplinary study, three different kinds of organizations were targeted – social, health and criminal justice. A snowball approach was employed to identify participants and a mixed method design informed the methods used. A quantitative instrument with 30 questions was developed for this research to capture participants' experiences regarding service delivery before and after the advent of COVID-19. Participants were also invited to participate in an interview containing four semi-structured questions. The data for the Victoria study were collected between March and May 2021. The research on the other six cities is currently in progress, with analysis and final results scheduled for completion later this year in preparation for this conference. Regarding the first stage of the project, a total of 31 service providers from seven organizations participated in the research. Of those, eight volunteered to be interviewed. A total of 21 provided social services and three provided health or criminal justice services. Significantly, a majority of the organizations involved serviced more than 200 PEHCD a day. An initial review of quantitative results revealed several challenges experienced by participants including: (1) difficulties in accessing information relating to COVID-19; (2) limited access to safety supplies; (3) challenges with providing services and limitations on existing facility design; (4) staff shortages; and (5) increased overdoses due to isolation. Most organizations had adapted their services in response to COVID-19 and some had been invited to participate in meetings to collaborate with other organizations serving PEHCD. Finally, participants also provided examples of challenges where solutions were developed in response to COVID-19. Although in the early stages, qualitative data analysis shows the effects adaptations to challenges. A health care worker noted that bureaucracy was rearranged to provide a designated coordinator for mental health services. In addition, "pop-up" clinics were provided in areas frequented by PEHCD. Social service agencies rededicated open spaces for program delivery, provided personal safety equipment, and constructed "safe areas" using plexi-glass structures. A mobile shower system was also developed, as were toilet facilities. This Victoria research revealed several gaps in services for PEHCD resulting from the isolation practices associated with COVID-19. Organizations have been effective in adapting service delivery to meet newly formulated safety protocols. Despite challenges, service providers successfully continue to meet their clients' needs. However, social isolation practices, transformation of service delivery, and the resulting gaps in services resulting from the virus have further marginalized a disadvantaged population. Further exploration of this issue in other cities in BC will augment the Victoria study. Policy implications and recommendations will follow from this expanded research.

Audience Take Away:

- The audience will learn about successful strategies for adapting services to PEHCD during a crisis.
- Practitioners can expand their knowledge of the benefits of interagency cooperation.
- The results of this research can inform curriculum and policy development in health and social services programs
- Instructors can demonstrate the significance and benefits of interdisciplinary research.

Biography

Michael Young earned his Ph.D. in 2006 at Simon Fraser University in British Columbia. He teaches courses in related to criminal and social justice; he is currently the Director of the School of Humanitarian Studies at Royal Roads University. His research focuses on social justice issues affecting marginalized populations, including those experiencing homeless, addictions, mental health disorders and those in the criminal justice system. He has conducted applied research in several Canadian communities, including the Canadian Arctic. He has published over 30 articles and book chapters, and in addition to his current research, is working on a criminology/criminal justice textbook.

Rana Van Tuyl is a social sciences researcher and consultant supporting the development of workplaces and communities to co-create places of psychological safety and belonging. Pursuing a doctorate in social sciences from Royal Roads University, Rana's research interests embrace the connection between authentic inclusion, psychological safety, and communication to co-create places of belonging that enable people to participate more fully in workplace and learning environments.

Sanjib Basu

University of Illinois, USA

Democratizing data for public health

The Population Health Analytics, Metric and Evaluation (PHAME) center integrates novel technology with academic expertise to provide community-level data analysis, evaluation and visualization of public health data. The Center advances health equity through data-driven public health decisions and meaningful population health initiatives. The Chicago Health Atlas is a public and community resource for hyper-local and essential data of public health, community, social, economic, and environmental indicators. The new Chicago Health Atlas, hosted by the PHAME center, has its core mission of democratizing data for public health. This presentation will describe the democratization of data in the Chicago Health Atlas as well as modeling and data analysis of public health data

Biography

Sanjib Basu is the Paul Levy and Virginia F. Tomasek Professor of Biostatistics, Director, Center for Biostatistical Development, and heads the Section of Biostatistics in the School of Public Health at University of Illinois Chicago. Dr. Basu has been recognized as Fellow and Elected Member of professional societies, has a sustained list of publications and is currently serving in the Editorial Boards of multiple journals.

SPEAKERS

DAY 01

INTERNATIONAL PUBLIC HEALTH CONFERENCE

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Ling Claytor*[1], Arun Changolkar[2]

[2]Emergent BioSolutions, United States

[1]Emergent BioSolutions, Singapore

Economic burden of foodborne botulism outbreak in Vietnam

Objectives: Botulism is a rare bacterial infectious disease caused by Clostridium botulinum. The neurotoxin produced by the spore leads to serious paralytic illness and even death. There are seven forms of botulinum toxin, type A to G. Patients exposed to botulinum toxin can be treated with BAT® [Botulism Antitoxin Heptavalent (A, B, C, D, E, F, G) - (Equine)] product approved in the USA in 2013. In 2020, foodborne botulism outbreak was reported in Vietnam, and very little is known about the economic burden.

Methods: Per-day costs, as well as the length of stay in days for non-intensive care unit (NICU), intensive care unit (ICU), and mechanical ventilation days (MV-days) for Vietnam, were gathered from previously published literature.

Results: Thirteen foodborne botulism cases were reported in Vietnam in the 2020 outbreak. The average length of stay of the NICU, ICU, and MV per day was 168.5, 164 and 164 days, respectively.1 The NICU, ICU, and MV costs in USD were $109.832, $2,534, and $4,723 per day.3 Using this information, our conservative per patient cost estimates for non-ICU, ICU, and MV costs were $18,506, $415,576 and, $774,572, adding up to a total cost of $1,208,654 per-patient towards treating botulism. For 13 foodborne botulism cases, costs sum up to $15,712,507 to Vietnam's healthcare system.

Conclusions: This preliminary investigation demonstrates a significant economic burden due to foodborne botulism to Vietnam's healthcare system. Patients exposed to botulinum toxin A to G can be treated with BAT® [Botulism Antitoxin Heptavalent (A, B, C, D, E, F, G) – (Equine)] product that demonstrated exceptional clinical benefit with early (<2 days from symptom onset) versus later treatment (>2 days).4 BAT product could significantly reduce the length of stay, resource utilization, and significantly reduce the economic burden to the Vietnam healthcare system which needs further investigation.

Biography

Dr. Ling Claytor is a MD, PhD in Pediatric Cardiology with years clinical and industry experiences. She attained her medical training and PhD degree at The University of Hong Kong, Post-Doctoral and professional training at Oregon Health and Science University in the U.S. Furthermore, she has two Master Degrees in Biochemistry and Rehabilitation Sciences. Dr. Claytor takes numbers of medical leadership roles in the region. She is the Medical Director of Abbott Nutrition in Asia Pacific. Dr. Claytor joined Abbott from Roche where she served as Medical Director overlooking multiple functions including medical affairs, clinical operations, regulatory affairs, pharmacovigilance, logistic quality and medical compliance. Before that, she worked in positions of increasing responsibility in GlaxoSmithKline (GSK) and Bayer. She has published more than 20 papers in reputed journals and has been serving as an editorial board member of repute. She has over 10 years of working experience in the industry and more than ten years of clinical service, teaching, and academic research experience before joining pharmaceutical industries. Dr. Claytor has extensive institutional and pharmaceutical experience in Hong Kong, the U.S. and Singapore.

Mu-Ting Li*, Qing-Wen Zhu, Xun Zhuang, Yin-Hua Jiang, Chun-Hu Li, Gang Qin

Nantong University School of Public Health, China

Assessing and modifying newborn genetic and hearing screening program in Nantong city, China

Background: Hearing loss (HL) is the commonest congenital sensory disorder, affecting 0.3-15.0 per 1,000 infants, with a median of 1.70. Approximately 60% of HL infants have an identifiable genetic etiology. MT-RNR1 variants and some variants of SLC26A4 have been associated with environmental factors and thus regarded as "preventable". Conventional universal newborn hearing screening (UNHS) may miss some HL and could not identify late-onset HL. Additionally, conventional UNHS could not elucidate the etiology which may indicate meaningful intervention.

Methods: We constructed a population-based cohort study used a 4-stage genetic and hearing screening program at 6 local hospitals in Nantong city, China. Participants were newborn infants born between January 2016 and December 2020 from the Han population. Limited genetic screening for 15 variants in 4 common HL-associated genes and newborn hearing screening (NHS) were offered concurrently to all newborns. Hearing rescreening and/or diagnostic tests were provided for infants with evidence of HL on NHS or genetic variants on screening. Expanded genetic tests for a broader range of genes were targeted to infants with HL with negative results of limited genetic tests.

Results: Among a total of 39 923 infants, 35 920 infants completed the follow-up and were included for analysis. Among the infants included in the analysis, all were from the Han population in China and 52.1% (18 724) were male. The modified genetic and hearing screening program revealed 151 cases of HL and 1454 cases of genetic variation. The limited genetic screening helped identify 33 infants who passed newborn hearing screening, reducing time for diagnosis and intervention; 479 infants with normal hearing with pathogenic SLC26A4 variation and 109 infants with MT-RNR1 variation were at risk for enlarged vestibular aqueduct and aminoglycoside-induced ototoxicity respectively, indicating early aversive or preventive management. Moreover, as of June 2021, the follow-up system identified 12 cases of HL, including 10 cases of genetic variation.

Conclusions: This study found that performing modified genetic and hearing screening in newborns was feasible and provides evidence that the program could identify additional subgroups of infants who need early intervention. These findings suggest an advantage for universal adoption of such a practice.

Audience Take Away:

- We found that the modified newborn genetic and hearing screening program lead to multiple benefits: (1) identifying 33 HL newborns missed by the conventional hearing screening, (2) providing etiologic information to 1454 subjects, and (3) targeting 588 children at risk of late-onset HL to improve prevention.
- This study's findings suggest that universal screening of a limited number of hotspot variants plus targeted screening for the hearing-impaired subpopulation would offer inexpensive and timely clinical benefits.
- The performance of Nantong's modified screening program highlighted the need for universal adoption of such a practice.
- Large observational studies are needed to evaluate the cost-effectiveness and long-term benefits of integrated genetic and hearing screening programs.

Biography

MPH Li specialized in Preventive Medicine at Inner Mongolia Medical University, China and graduated as BPH in 2018. She then studied for a MPH in Public Health at Nantong University, China in 2019. She was mainly engaged in research on the prevention and treatment of newborns hearing loss. After two years, she founded the Jianghe Muting Health Charity Center in order to pay attention to children's health of hearing. She has published 1 relative research article in SCI journal.

Salila Cetthakrikul[1,2] and Usaneya Perngparn[2]

[1]Walailak University, Thailand

[2]Chulalongkorn University, Thailand

Effectiveness of specific self-static stretching exercise on improving leg movement among market-vendors in Bangkok

Background: Prolonged sitting and standing can cause injury at back and leg muscle. It results in muscle discomfort, muscle fatigue and muscle pain that relate to back, legs and feet. The market-vendors must sit or stand at their shops for a long time for selling their products whole day. Thus, leg pain and suffering often occur in market-vendors. Although the stretching exercise is well-known for increasing muscle flexibility and reducing muscle pain in workers, the market-vendor group always ignore to perform due to their burdens. Easily exercise might be a strategy for changing their behavior. Specific Self-Static Stretching (SSS) Exercise is an easy program that can eliminate pain and help their movement. Therefore, the program was implemented to the market-vendor group.

Objective: This study aimed to determine the effect of Specific Self-Static Stretching Exercise on leg movement among the market-vendors in Bangkok.

Method: A quasi-experimental study with control group was used among 2 markets in Bangkok. Both markets are similar in term of the number of shops and type of market. Market A was selected as the intervention group while Market B was selected as the control group. Target population were market-venders aged 18 years and older. Visual analog scale (VAS), Chair Sit and Reach tests were used to assess the degree of muscle pain and leg muscle flexibility. Participants were market-venders who had muscle pain or muscle discomfort at legs or feet (VAS ≥ 3) or Chair Sit and Reach test showed poor muscle flexibility (≤ 5 cm.). A specific stretching exercise program was adjusted some posture to suite the need of the market-vendor group. It included 2 stretching exercise: Back of thigh stretch, and Calf stretch. The exercise protocol was move slowly to the end point of tightness, hold for 10 seconds, repeat 3 times, and perform 2 time in every day. This exercise program was conducted only in the intervention group by a physical therapist for the first month and then, the participants performed the exercise program for 3 months by themselves. The control group received only a leaflet about corrected postures for working. The Mann Whitney u test and Wilcoxon signed rank test were used for comparison before and after exercise program between group and within group, respectively.

Result: A total of 131 market-vendors (intervention group=56 and control group n=75) were recruited. Both groups were similar in baseline characteristics. After 4-month SSS exercise program, the degree of pain showed downward trend in the intervention group, but it was not different between groups. The intervention group showed significant increasing of right and left leg muscle flexibility ($p<0.001$, $p = 0.04$, respectively). And there were significant differences of right and left leg muscle flexibility between groups ($p<0.001$).

Conclusion: The SSS exercise can increase leg muscle flexibility among market-vendors in Bangkok. This exercise program is easy and suitable for the market-vendors group to perform continuously for improving their health. However, the limitation was this study collected data among market vendors only in urban area. So, this result might not generalize to other job sections or rural area.

Audience Take Away:

- Thai market vendors had leg muscle pain and very poor leg muscle flexibility due to prolonged standing and lack of suitable stretching exercise program. This study designed the specific static-stretching exercise program for the market-vendors. It was an easy program and take 2-3 minutes per session. So, the market vendors can perform correctly and regularly. For more useful and continuing exercise behavior, the specific exercise program should be designed for each worker group or each area by concerning job characteristics, lifestyle, and environment.

Biography

Dr. Salila works as lecturer at Department of Physical Therapy, School of Allied Health Sciences, Walailak University, Thailand. She graduated in physical therapy foe bachelor and master's degree at Mahidol University. She received her Ph.D. degree of public health at College of Public Health Science, Chulalongkorn University in 2019. Her areas of expertise include physical therapy, health risk behavior and health promotion and prevention program for worker population.

Pragya Pranjali*[1], Sanjeev Dham[1], Subroto Roy[2], Padamshree Pandey[2]

[1]Smile Foundation, India

[2]Special Projects and Institutional Partnership, India

Healthy eating and balanced in not expensive but it requires effective planning and strong community participation evidences from Gujarat and Punjab, India

Community engagement as the first step in preventive health intervention focuses on developing, empowering and building the capacity of the community to create interactions between the community members and the ecology that are health promoting rather than unhealthy. Public health nutrition (PHN) practice enables people to increase control over, and to improve their nutrition-related health. Thus effective PHN practice involves engaging the community or population at the first stages of intervention management. Successful preventive health interventions are greatly dependent on the participation and support of the community in which the intervention is developed and implemented. Community engagement as the first step in preventive health intervention focuses on developing, empowering and building the capacity of the community to create interactions between the community members and the ecology that are health promoting rather than unhealthy. Public health nutrition (PHN) practice enables people to increase control over, and to improve their nutrition-related health. Thus effective PHN practice involves engaging the community or population at the first stages of intervention management. Successful preventive health interventions are greatly dependent on the participation and support of the community in which the intervention is developed and implemented. The attainment of effective and sustainable outcomes is unlikely if health professionals plan interventions without consulting stakeholder groups or believe they are the experts in a field and know what is best for the community. Effective PHN practitioners are those that act as catalysts for community action, who empower others to develop intelligent strategies to deal with identified determinants of nutrition-related health problems. It should be noted that community engagement and development is not a structured or formulaic process but one that needs to be adapted and informed by the community itself. It has to be done in the context of individual communities. The Presentation will discuss the results achieved because of focused community engagement activities for nutrition enhancement program in Gujarat and Punjab for adolescent girls and pregnant & lactating women including children from 6 months until 6years, respectively. The community engagement strategies included, local food mapping- deciphering local palate and seasonality, competitions such as master chef competition- exploring local recipes and recognising them, kitchen garden- lateral as well as medial- promoting seasonal vegetables, promoting important events and days- reinstating the importance of micro- nutrients and macro nutrients and focusing on overall nutritional gains. The major impetus for these activities was also during pandemic period, when the competitions and recipes could conduct online and could be promoted digitally as well. The community engagement strategy further corroborates measurement plan with community participation- community health screening camps, home visits for community feedback along with frontline workers, developing village health action plan and social audit using Participatory Rural Appraisal (PRA) technique.

Audience Take Away:

- Community Engagement Strategy is very strong evidence based tool, to bring about social and behavioural changes with long term gains.
- Local food palate and eating patterns need to be promoted and recognised for more community buy-in.
- Setting right context for traditional pattern of eating and consumption of food is crucial for yielding long term gains in terms of sustainability.

Biography

Pragya Pranjali- is Social Scientist and Entrepreneur with a niche specialization Public Healthcare domain. Working for about more than 1.5 decades now, she has multiple faceted qualification towards her credit- public health management, demography, law, health communication etc. She expertises in developing measurement & learning framework for social and behavior aspects of healthcare thematic areas, in particular. Having several accolades and writings to her credit, she has a third eye- qualitative insight towards converting numbers in stories, thereby, advising program in long run. She has been contributing to several scientific blogs and researches in her working span.

**Renate Schramek*, Claire Lichteiker*,
Edwin Naroska, Todor Dimitrov**
University of Applied Sciences, Germany

Support in the home care of people with dementia through an accompanied personalized humanrobot interaction RUBYDemenz

Due to their prevalence, dementias are an ever-greater challenge for society as well as for the elderly. In Germany around 1,6 million people are affected by dementia today. This figure will rise to 2,8 million in 2050 (Alzheimer Europe, 2019). Therefore, the development of technical assistance and support systems is significant for society as well as for the persons and families, in order to be able to deal with the related challenges in the best possible way and to enable a good life with care at home. In Germany, the majority of people with dementia (PWD) would like to be able to continue living in their own homes. The Researchproject "RUBYDemenz" (2020-2023, BMBF) means an intervention of a personalized human-robot-interaction (HRI) with a psychosocial support of the users by specially trained accompanying persons. The accompaniment, the use of the robotics and the respective effectiveness in the home situation with care for PWD are tested and investigated. The focus is also on the effect of the individualized functions (e.g. increasing the activity and self-efficacy of PWD, promoting communication and social participation) and questions such as how the psychosocial, individual support together with the use of robotics can strengthen communication between informal caregivers and PWD. The robotic system can interact with the users by means of natural language, generate and capture emotions, emotional expressions and emotional effects are created. The system can detect the context of the users, analyse the user activities and the environment via camera. From this, the system determines whether and how it can react. Personal characteristics and wishes of the users are taken into account. Sensitive data (images, sounds) are processed locally (privacy and data protection). The system offers dynamic programs to activate the PWD (e.g. conversations, guessing games), to support the daily routine (e.g. appointments, reminders). It can identify stressful situations, have a calming effect and, if necessary, inform contact persons. The new structuring, activation, feedback and communication system is introduced by specially trained accompanying persons - they train the users with the HRI. The training for the attendants and the training for the users is based on a newly developed competence- model (robotic-competence-model). The participants are involved in the preparation of the curriculum content in order to achieve the greatest possible gain in competence and to build up resources together with the users. The aim is to enable people to use assistance technology, to stay in their own home for as long as they want or to maintain their quality of life. The training of companions, the use of HRI and psychosocial support are currently being tested and examined in several months of practical trials in the homes of PWD. Design issues and optimization needs in development, curriculum, training, research and practice follow a participatory research approach. The existing ethical, legal and social aspects are continuously recorded in the research and discussed with the users. Existing areas of tension, e.g. between robotics and the users, are researched.

Audience Take Away:

- The relationship between assistance and support systems in the field of community health is presented. The role of personal assistance in the field of community health will be critically reflected against the background of available robust data, the potentials and challenges will be highlighted.
- The audience learns how HRI is accepted and how it can be used by the target group in the home context and which concepts are behind the acceptance and use.
- Basic necessary learning processes (competence gains) of the users are shown.
- The results of previous research are fundamental to benefit from the technology.
- The auditorium can hear which research design is used to measure effectiveness. Initial results on the effectiveness of the Robotic System and HRI for technology adoption by older people in home care situations will also be presented. The specially designed and implemented learning model will be presented. This can be transferred to other contexts and technologies / technical developments.

Biography

Prof. Dr. Renate Schramek directed the Geragogik-Research-Institute in Witten (2004-2015). She habilitated at the Fernuniversität in Hagen in 2018 and has since been Professor of Health Didactics at the Department of Community Health. She leads several research projects in the field of community health. Since 2015, she has been publishing and researching with the project consortium "Ourpuppet" on the topic of care support with an interactive technology for informal caregivers" and on "RUBYDemenz" on the support in home care of people with dementia through a personalized human-robot-interaction". She is in the board of the society for Health Didactics.

Sonjia Kenya*[1], BreAnne Young[2], Allan Rodriguez[3], Stuti Dang[4], Pan Yue[2], and Olveen Carrasquillo[1]

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Addressing COVID-19 disparities through an HIV framework

The prolific spread of COVID-19 in the U.S. has overburdened our clinical healthcare system and magnified significant gaps in the delivery of care. In a matter of months, stark disparities in COVID-19 morbidity and mortality rates emerged in communities of color, evoking a pattern of poor outcomes parallel to that of HIV in minority populations. Evidence suggests that the disparities in COVID-19 outcomes are heavily rooted in socioeconomic inequities, many of which overlap as drivers of HIV disparities among Black communities across the Nation. Miami Dade County, in particular, experiences some of the greatest racial disparities in HIV outcomes. While Blacks comprise just 17% of County residents, they accounted for nearly half of people living with HIV in 2018 and 64% of AIDS-related deaths, indicating critical gaps in the HIV care continuum among this population. Similarly, Black Miami residents accounted for 21% of COVID-19 related deaths as of April 2020, resulting in a mortality rate of 6.1% compared to 3.9% among Whites. One promising strategy to overcome such social and economic barriers to care has been the use of Community Health Workers (CHWs). Identified by the Department of Homeland Security "essential infrastructure workers" during the response to the COVID-19 emergency," CHWs play a critical role in public health and safety as well as community well-being. Respected and well-known by their neighbors and local residents, CHWs have a deep understanding of the health and social needs of the community that make them effective at improving local health outcomes. Over the last decade, our CHW-led interventions have established a robust network of community partners to improve access to HIV testing and linkage care among Black adults in Miami's high-risk regions. CHW interventions have a similar potential to support COVID-19 screening and vaccination efforts by promoting awareness, dispelling myths, and ensuring access to highly vulnerable communities. Few health systems, however, have explored this approach in response to the pandemic. Leveraging our existing CHW network, we have adapted our CHW-led HIV screening strategies to increase COVID-19 vaccination efforts among Miami's high risk minority communities. To ensure our approach is aligned with community values and norms, we have partnered with nine community-based organizations to identify acceptable approaches to incorporate COVID-19 education and vaccination into our existing CHW protocols. From July through September 2021, CHWs provided 20,064 local residents with education on the COVID-19 virus, its risk factors, and the safety of the vaccines; 1,276 individuals were screened for COVID-19, and 2,713 people received the vaccine. These preliminary findings support the use of CHW-led interventions as effective and adaptable strategies to improve access to care and reduce disparities is a variety of health outcomes.

Audience Take Away:

- This initiative aims to translate CHW-led strategies for HIV prevention to an expanded COVID-19 prevention and service-based program for diverse, resource-poor minority populations in South Florida. This presentation should be of interest to a broad readership, including healthcare disparity researchers and anyone interested in developing CHW interventions for disadvantaged communities. Herein, we will explore the overlap between the COVID-19 pandemic and the HIV epidemic for minority communities and discuss the efficacy of CHWs in improving the delivery of care among high-risk populations.

Biography

Dr. Kenya earned her bachelors' degree from UCLA, and two master's degrees along with her doctorate from Columbia University. Since joining the faculty at the University of Miami in 2008, her research has focused on translating clinic-based care to community settings using CHW strategies. The Associate Director for the Center for AIDS Research Behavior & Social Science Core, She has worked with several distinguished HIV experts and published more that 50 research articles on HIV/health disparities. She has also received numerous honors for her community-based work in HIV prevention, including "Woman of the Year" from the Miami-Dade Women's Commission.

Godfred O. Antwi
Suny Brockport, USA

Social-Emotional support and health related quality of life in US cancer survivors

Objective: Individuals with a history of cancer diagnosis (cancer survivor) are likely to experience poor health-related quality of life (HRQoL). The aim of this study was to examine the cross-sectional association between perceived social-emotional support and HRQoL in a nationally representative sample of US cancer survivors.

Methods: Pooled data from the 2016 and 2017 Behavioral Risk Factor Surveillance Survey were analyzed among 4,360 cancer survivors representing 1,258,828 US cancer survivors. HRQoL was assessed by the Centers for Disease Control and Prevention's four core Healthy Days measures (i.e., self-related general health, activity limitation days, poor mental and physical, health days). Multivariate logistic regressions were used to examine independent associations between perceived social-emotional support and each of the four HRQoL measures, adjusting for age, sex, race/ethnicity, marital status, education, employment status and Body Mass Index.

Results: Of the 4,360, an estimated 8.38% reported that they rarely/never received social-emotional support. Regarding HRQoL measures, 32.50% self-reported fair/poor general health, 13.91% and 24.97% reported frequent days of poor mental health and poor physical health respectively, whereas 43.88% reported frequent activity limitation days. Relative to those who reported that they always received social-emotional support, those who reported that they rarely received social-emotional support were more likely to report frequent days of poor mental health (AOR = 3.68, 95%CI: 1.98–6.83) and activity limitations (AOR = 2.05, 95%CI: 1.24–3.39). Likewise, relative to those who reported that they always received social-emotional support, those who reported that they sometimes received social-emotional support, were more likely to report frequent days of poor mental health (AOR = 3.57, 95%CI: 2.34–5.44) and activity limitations (AOR = 1.46, 95%CI: 1.12–1.91). Although the odds of reporting fair/poor general health and poor physical health were greater for those who reported that they rarely/never- and those who reported that they sometimes received social-emotional support than those who reported that they always received social-emotional support, these differences were not statistically significant.

Conclusion: Among cancer survivors in this study, lower social-emotional support is associated with poor HRQoL, particularly with frequent days of poor mental health and activity limitations.

Audience Take Away:

- Participating in a support group may help improve the health-related quality of life of cancer survivors
- Healthcare providers and behavioral interventionists should equip cancer survivors with knowledge and skills needed to build social support networks.
- Interventions targeted at survivors with lower social-emotional could potentially help improve their quality of life.

Biography

Dr. Godfred O. Antwi is an Assistant Professor in the Department of Public Health and Health Education at SUNY Brockport. He holds PhD in Public Health with a focus on Health Behavior and Epidemiology from the Indiana University, Bloomington-School of Public Health. With research interests in Cancer Prevention and Control, Substance Abuse and Health-Related Quality of Life Research, Dr. Antwi studies modifiable health-related behaviors including tobacco use, alcohol use and physical activity as well as psychosocial and demographic factors that contribute to cancer health disparities.

Brigitte van der Zanden
Eu Prevent, Netherlands

COVID-19 in the inner-eu border regions: Challenges and lessons learned

In Europe around 37% of the citizens live in a border region. The population living in the border regions encountered tremendous challenges during the pandemic as their life was regulated by different national policies at different sides of the borders, whereas they might live and work at different sides of the border. This means that besides the general impact COVID-19 had on the lives of the citizens in these border regions, it would also be interesting and probably necessary to find out if living in these border regions had an extra health-related effect. That was the reason for several joint research projects to be initiated. These projects analysed and compared the impacts of COVID-19 on the population in some border regions within the European Union: the border region between The Netherlands, Germany and Belgium. The main research questions raised in this paper are therefore: what is the health-related impact of COVID-19 on a border region? This takes into account the different national policies. Has for example closing a border an effect on the distribution of COVID-19, both domestically and cross-borderly? Both qualitative and quantitive approaches are employed in the pursuit of answers. In addition, the perspective the citizens from different border regions has been examined and will be presented, as it provides a deep insight in understanding the impacts of a pandemic like COVID-19. The existing problems and challenges encountered in these border regions may present common features with many other border regions not only in Europe, but also worldwide. Thus the lessons learned here can hopefully be of use for many other parts of the world as well. One of the major lessons we have learned is to promote structured and systematic cross-border cooperation, especially when confronted with a virus that knows no border when transmitting. Therefore, our paper will provide good illustrations on how to realize a cross-border cooperation in a sustainable way and exactly in which way we can complement each other cross-borderly to scale up the health care capacity.

Audience Take Away:

- This paper is based on the findings from several joint research projects carried out under the framework of euPrevent projects. These projects often involve not only academics, but also national public health authorities, professionals and experts from various countries. The results arising from these projects will be of great value as it builds a bridge between scientific knowledge and policy/decision making.
- A whole dataset was established through these projects. Data was collected on the prevalence of antibodies of a large population in the border areas, and was associated with national response policies. In Europe, every country collects data and processes them with different standards and criteria. Moreover, these data are often restricted to nation-wide, and regional data are still lacking. Therefore, we have collected regional and cross-border data and make them compatible so that we could compare these data more easily. The ultimate goal is to visualize these data in a so-called Euregional Health Atlas, where the health situation of the population living in some inner-EU border regions was presented. This will fill in the gap of regional data in Europe and will transfer our knowledge to the professionals and even the general public.
- What we have experienced during the pandemic is that national health policies were not always easy for citizens to implement, especially in a cross-border setting. On the other hand, civil participation is crucial in the domain of public health especially because this concerns the interest of the public at large. Therefore, we have organized theme-based dialogues in the forum of “citizens’ summits” where people could share their personal experiences during the pandemic, in their own languages. The insights from citizens help the researchers depict a full picture of the problems and challenges presented by the pandemic.
- In all, this paper is aimed at various types of audiences, including academics, health practitioners and professionals, and even policy makers. Hopefully the multi-disciplinary approach may provide a new perspective for all the audiences.

Biography

Brigitte van der Zanden is the director of Foundation euPrevent, the Netherlands. She obtained master degree at the University of Maastricht, the Netherlands in the Faculty of health sciences in 1999, and is currently working on her Ph.D at the University of Maastricht.

Chanvo S. L. Daca*[1,2,3], Fredinah Namatovu[2], Miguel San Sebastian[2], Carlos Arnaldo[3], Barbara Schumann[2,4]

[1]Directorate of Planning and Cooperation, Mozambique
[2]Umea University, Sweden
[3]Eduardo Mondlane University, Mozambique
[4]Linnaeus University, Sweden

The evolution of socioeconomic and geographical inequalities in woman and child health in Mozambique between 2014-2019

Over the last years, Mozambique has implemented many initiatives such as health sector plans and strategies to ensure equitable access to health care services. While there have been some achievements in terms of coverage, the effects of these plans and strategies on socioeconomic inequalities in health care have not been analysed. The present study assesses women's and children's socioeconomic inequalities in health care access between 2014-2019.The present studies were based on two cross-sectional surveys conducted in Mozambique. The 2015 Immunization, Malaria and HIV survey and the 2018 Malaria Indicator survey. Data from women of reproductive age (15 to 49 years) were analysed to evaluate health care coverage across three indicators: Insecticide treated net usage and fever treatment of children, and Fansidar malaria prophylaxis of pregnant women. Absolute risk differences were calculated between socioeconomic variables using binomial regression analysis for each time period. The Slope Index of Inequality was calculated for health outcomes by each socioeconomic variable and period. A multiplicative interaction term between the socioeconomic variables and period was included to assess the changes in socioeconomic inequalities in health care. Access to health care increased in all the studied outcomes between 2015. Significant reductions in inequality related to use of insecticide treated net (ITN) were observed for all socioeconomic variables. However, we did not observe any reduction in socioeconomic inequalities for fever treatment and Fansidar prophylaxis. While socioeconomic inequalities in the use of ITN decreased during the plan implementation period, this was not the case for fever treatment and Fansidar prophylaxis. Policy decision makers must target underserved populations to address health inequalities, specifically for non-educated women living in rural regions.

Abdullah A gafar
Al Razi university, Yemen

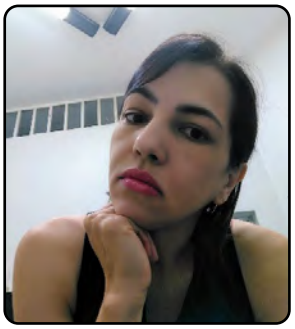
Prevalence blood pressure among chewers khat in sana'a -Yemen

Background: Hypertension is a growing public health problem, with remarkable contribution to cardiovasculardiseases morbidity. Worldwide, an estimated one billion individuals have hypertension, and approximately 7.1 million deaths per year are attributable to hypertension. Clinical and statistical studies suggest possible additional newer risk factors for hypertension, including Qat chewing , independent of classical factors such as dyslipidemia, tobacco smoking, having diabetes or impaired glucose tolerance. In yemen, qat chewing is a widely practised socio-cultural habit. It consists of placing the green-leaved plant into the mucobuccal fold and chewing it for several hours. This study was conducted to determine the prevelance of blood pressure among chewers qat in sana'a –Yemen.

Methods: We compared systolic and diastolic blood pressure of adults 35-65 years of age who reported regular chewing of Qat during the preceding five years to those who never chewed Qat during the same period. Study participants were recruited from purposively selected urban and rural villages of Sana'a in Yemen during march -may 2021. The comparative groups, chewers (340) and non-chewers (340), were identified from among the general population through a house-to-house visit using a screening questionnaire. They were frequency-matched for sex and age within a five-year range. Data were collected through structured interviews and physical measurements including blood pressure, weight and height. Two-tailed, p-value <0.05 was regarded statistically considerable.

Results: The findings of the investigation: the prevalence of hypertension was significantly higher among Qat chewers (14.2%) than non-chewers (11.5%). A considerably high proportion of chewers (30.1%) than non-chewers (21.2%) had sub-optimal diastolic blood pressure (> 80 mmHg). The mean ±sd diastolic blood pressure was significantly higher among Qat chewers [78.0 ±12.3)] than non-chewers [73.9 ±11.7], $P < 0.05$. Similarly, Qat chewers had significantly higher mean (sd) heart rate [76.3 ±11.5] than non-chewers [74.9 ±12.6], $P < 0.05$. There was no significant difference in mean systolic blood pressure between the two groups.

Conclusions: Our study revealed that Qat chewing may contribute to elevated blood pressure, with a more pronounced effect on diastolic blood pressure. A considerably higher proportion of Qat chewers have sub-optimal DBP. The findings suggest that Cathinone might have a sustained effect as peripheral vasoconstrictor among regular Qat chewers. The association of regular Qat chewing and elevated blood pressure levels in the population has significant relevance for public health. Programs for the prevention and control of high blood pressure in the population need to devise strategies to counter the expansion of Qat chewing and other substance use behaviors



Lilane Maria Alves Silva

Federal University of Triangulo Mineiro, Brazil

Transition and factors associated with the level of physical activity combined with sedentary behavior of the elderly

During the presentation, health aspects related to the level of physical activity combined with the behavior of the elderly will be discussed. Physical activity and sedentary behavior are emerging issues in public health, especially in developing countries. A research was conducted in order to verify transition and factors related to physical activity combined with sedentary behavior among the elderly followed for 24 months. It was a longitudinal observational study with people aged 60 years or over living in the urban area of Uberaba, Brazil. The data from sociodemographic, health, and physical tests in 2014 and 2016 using the Mini-Mental State Examination (MMSE), the Katz Index, the Lawton and Brody Scale, the Short Physical Performance Battery (SPPB), and the International Physical Activity Questionnaire (IPAQ) were collected. For the combined evaluation it was considered a cutoff point of 150 minutes of physical activity per week and the percentile 75 (420 minutes/day) for sedentary behavior constituting the groups: Unsatisfactory (insufficient sum of physical activity and sedentary behavior), intermediate (loss of only one of the two components) and satisfactory (sufficient sum of physical activity and sedentary behavior). The statistical descriptive and inferential analysis was performed using the Statistical Package for Social Sciences™, version 21.0, considering $p<0.05$. The results showed that of the 374 elderly, 61 (16.3%) improved their physical activity and sedentary behavior condition, 226 (60.4%) remained in the same category and 87 (23.3%) got worse. Unsatisfactory levels of physical activity and sedentary behavior were related to the eldest group ($p=0.031$), the absence of professional activity ($p<0.001$), the dependence for instrumental activities of daily living ($p=0.013$), and a worse physical performance ($p<0.001$). In this way, it was possible to identify a relationship between sociodemographic and health factors with physical activity and sedentary behavior, reiterating the need for further research on the subject.

Audience Take Away:

- Active aging is a challenge worldwide. Physical inactivity is a mortality risk factor.
- Sedentary behavior is an emerging topic in public health and the combined approach with physical activity allows a deeper scrutiny of their relationship and their implications for health. Besides not achieving the recommended values of physical activity, older people tend to spend too much time on tasks that require minimal energy expenditure, such as staying in a sitting position.
- Understanding the approach may help professionals in guiding the elderly in the adoption of a more active lifestyle.
- Understanding the approach may also help in the development of more effective public policies for this specific population group, that has its peculiarities.

Biography

Lilane Maria Alves Silva studied Physiotherapy at the University of Uberaba, Brazil. She concluded her graduation in 2007, the master's degree in 2013 and received the PhD in 2019, in Health Care from the Federal University of Triângulo Mineiro (UFTM). She is a specialist in General Hospital Physiotherapy from UFTM (2009) and in Public Health Management from the University of Uberlândia (2013). She is also a Technician in Radiology and Diagnostic Imaging in Health at Clinics Hospital and she joined the Public Health research group at UFTM, Brazil, in 2011. She has been publishing public health study articles ever since.

Chi-Chung Chen*, Ying-Chun Li
National Sun Yat-sen University, Taiwan

Factors affecting body fat control behavior

Introduction: Overweight is one of the increasing global public health problems. Overweight may lead to many disease occurrences. How to control overweight becomes important research question. Body fat significantly affects overweight condition. The purpose of this study is to understand the people's cognitive awareness of body fat, related behaviors affecting body fat control, and future willingness to control body fat. This study uses Health Belief Model to explore the important factors that affect people's behaviors related to body fat control.

Methods: A questionnaire was designed based on the five constructs of Health Belief Model. The samples were collected by means of online questionnaires from June to August of 2020. A total of 497 valid questionnaires were received and analyzed for reliability and validity. Statistical analyses include t-test、One-way ANOVA、Chi-Squared test, and logistic regression.

Results: In the analysis of demographic characteristics for Health Belief Model, the Perceived Susceptibility dimension has a significant correlation with gender and work status; the Perceived Benefits dimension has a significant correlation with gender; the Perceived Barriers dimension is significantly correlated with gender, age, monthly disposable income, and place of residence. People's self-perception of their body shape will affect their willingness to control body fat. Those who are slightly overweight and dissatisfied with their body shape are more willing to control body fat. The Perceived Susceptibility, Perceived Benefits and Cues to Action in the Health Belief Model can predict people's willingness to control body fat.

Conclusions: The results of this study showed that the Health Belief Model is useful in exploring the people's body fat control behavior. Based on the people's cognition of body fat control, the model can predict their willingness to implement body fat control behavior and suggest effective improvement programs accordingly.

Audience Take Away:

- Understanding of the use of the five dimensions of the Health Belief Model to investigate people's willingness to control body fat and identify influencing factors.
- The importance of early prevention, intervention and treatment of related chronic diseases caused by body fat and obesity as shown by the results of the analysis.
- Provide relevant reference information for future survey and research for the promotion of Health Belief Model to study other related disease control.

Biography

Chi-Chung Chen, doctoral candidate of the department of Business Management of National Sun Yat-Sen University, Taiwan (2021), Enterprise Tutor of the Department of Business Management (2019), Chairman of I/O GREEN CORPORATION (2007-present), Engaged in the management of R&D, marketing and production of medical device products. His areas of research are ecosystem, business model, competition and cooperation strategy, and medical device product management.

KEYNOTE FORUM

DAY 02

INTERNATIONAL PUBLIC HEALTH CONFERENCE

21-23 MAR

Yiannis Koumpouros

University of West Attica, Greece

mHealth initiatives to tackle the COVID-19 pandemic

The COVID-19 pandemic has brought about significant changes in all areas of human life: the way we live, communicate, train, work, etc. The rapid spread of the virus in combination with the significant and unpleasant consequences for human health has been the trigger for a unique global collaboration in the scientific community to find a solution as soon as possible. At the same time, it has driven technological innovations at a frantic pace in order to support people, communities and enterprises operate. The unprecedented conditions created led to the need for social distancing and isolation in order to prevent further spread of the virus. In this context, the term “tele-” was added to almost any activity. Tele-work, tele-education and of course tele-health have been adopted in all their forms in order for people and businesses to face the new challenges. The new normality caused significant changes in the maturation of the public, eventually bending technophobia and technological illiteracy. The combination of mobile communications, smart phones, wearables and the Internet has created technological innovations that have come to stay. Mobile health (mHealth) is on the rise, providing important solutions to tackle the pandemic, proving its usefulness in all directions, bringing to the fore many start-ups. However, issues of personal data protection, privacy, confidentiality of sensitive health data, etc., remain open in order to support the continuity of health care in compliance with applicable national legislations.

Biography

Yiannis Koumpouros (BSc, MSc, MBA, PhD) is Ass.Professor in the University of West Attica, Department of Public and Community Health. Specialized in health informatics, e-health, m-health, telemedicine, assistive technologies, rehabilitation, user’s satisfaction assessment,and strategic management.Expert for the European Commission in the e-health and m-health sectors, and evaluator of numerous R&D projects. Responsible for the WHODAS 2.0 scale cultural adaptation for the World Health Organization in Greece. Top-level managerial experience in the private and public healthcare sector (chairman of hospitals, member of the board of directors, business development and strategic management director, etc.) Chairman of several committees in the Ministry of Development Regular member of the Consultative Technical Council (Ministry of Internal Public Administration and Decentralisation) etc He has published more than 70 papers in reputed journals and conferences and has been serving as an editorial board member of repute. He has participated in more than 50 R&D funded projects in the field of healthcare and ICTs.

Purushottam A. Giri*, Chandrakant S. Pandav

IIMSR Medical College, India

Public private partnership PPP in health and nutrition: A case study of iodine deficiency disorders in India

According to the World Health Organization (WHO), Iodine Deficiency in foetal life and early childhood remains the single most important and preventable cause of mental retardation, globally. Even mild iodine deficiency can prevent children from attaining their full intellectual and physical potential Sustainable elimination of Iodine Deficiency Disorders (IDD) is directly linked to economic growth. The Intelligence Quotient (IQ) score of children living in an 'Iodine Deficient' environment is nearly 13.5 IQ points less than those living in iodine sufficient environments. Each individual consumes, on an average, 12 grams of salt per day. Salt is therefore fortified with Iodine under the Universal Salt Iodization (USI) program to address Iodine Deficiency Disorders (IDD) in the country. Since the implementation of the USI in India, salt iodization has achieved remarkable success. As of now, iodized salt reaches 92.4% of the population in the country (India Iodine Survey, 2018 – 2019). Universal Salt Iodization (USI) is one of the most successful public health interventions. It has been credited with the elimination of IDD in the world.

Public - Private Partnership (PPP) Model - It refers to any arrangement between the government and the private sector for the common good of the people. Whilst the public sector is seen as representing a pool of resources to the delivery of key public services, the private sector is regarded for its ability to harness its expertise in realizing substantial incremental values of those resources. The public sector's potential will not be fully realized without the private sector. Private sector's participation can expand opportunities with new and innovative approaches, and better business and management expertise. The benefits of working with the private sector include improved access and reach, better efficiency, opportunity to regulate and establish accountability, improve quality, and practice rationale. Given the respective strengths and weaknesses, neither the public sector nor private sector alone is in the best interest of any program, including the sustainable Universal Salt Iodization (USI) program. There are very few examples of Public Private Partnerships in the field of health and nutrition in India. Of the few, none are as large-scale and significant as in the case of the Universal Salt Iodization (USI) program. The farming, processing, packaging, and marketing of salt in India is largely in the hands of private entrepreneurs. More than 95% of the salt production in the country is handled by the private sector. In such a situation, effective and sustainable elimination of Iodine Deficiency Disorders (IDD) will only be possible if the public sector, and the private sector collaborate in perfect harmony to develop, produce, and promote the daily use of adequately iodized salt. The public sector, which has the mandate and responsibility to improve the health and nutrition of the population, and the private sector, which has experience and expertise in food production and marketing, are clearly two very important pillars. As a result of their synergy, success has been achieved and we are all befitting from it. Over the years, surveys have shown that there has been admirable achievement towards sustainable elimination of Iodine Deficiency Disorders (IDD). From the various national surveys such as the National Family and Health Survey (NFHS), Comprehensive National Nutrition Survey (CNNS) (2016-18), and the India Iodine Survey (IIS) (2018-19), one can see that the cooperation from salt industry is one of the key factors in achieving high coverage of adequately iodized salt in India today.

Audience Take Away:

A very significant percentage of the population (23.7%) continues to consume inadequately iodized salt (16.1%), or nil iodized salt (7.6%). Thus, there is still a need to reach the unreached population. The harmony and enhancement of partnerships between the public and private sectors is one of the elements that needs to be strengthened to ensuring sustainable elimination of iodine deficiency disorders (IDD). Therefore, The PPP model is very much required to cover the 'last mile' of the Universal Salt Iodization (USI) program in India. With this information the audience would be

encouraged to have a research regarding IDD and role of PPP model in eliminating various nutritional disorders.

Biography

Dr. Purushottam A. Giri is currently working as Professor and Head, Dept. of Community Medicine at IIMSR Medical College, Badnapur Dist. Jalna, Maharashtra, India. He has more than 175 scientific research paper publications to his credit in indexed National and International medical journals.

Hamid Mcheick

University of Quebec, Canada

Software adaptation framework for COPD disease

Chronic obstructive pulmonary disease (COPD) is one of the most severe public health problems worldwide. Pervasive and context aware computing create a new opportunity to redesign the traditional pattern of medical system. While many pervasive healthcare systems are currently found in the literature, there is little published research on the effectiveness and adaptation of these paradigms in the medical context. We designed and validated a rule-based ontology framework for COPD patients. Unlike conventional systems, this work presents a new vision of telemedicine and remote care solutions that will promote individual self-management and autonomy for COPD patients through an advanced decision-making technique. This framework organizes and manages patients' data and information, as well as helps doctors and medical experts in diagnosing disease and taking precluding procedure to avoid exacerbation as much as possible. In this talk, I will highlight the main components of this framework and show methods to adapt it based on the context of patients.

Audience Take Away:

- Understand and Model the context of patient
- Design healthcare framework for COPD disease

Biography

Professor Hamid Mcheick is a full professor in computer science department at the University of Québec at Chicoutimi, Canada. He has more than 20 years of experience in both academic and industrial area. He has done his PhD in Software Engineering and Distributed System in the University of Montreal, Canada. He is working on design and adaptation of distributed and smart software applications; designing healthcare framework; and designing smart Internet of Things and edge framework. He has supervised many post-doctorate, PhD, master and bachelor students. He has nine book chapters, more than 60 research papers in international journals and more than 140 research papers in international/national conference and workshop proceedings in his credit. Dr. Mcheick has given many keynote speeches and tutorials in his research area. Dr. Mcheick has gotten many grants from governments, industrials and academics. He is a chief in editor, chair, co-chair, reviewer, member in many organizations (such as IEEE, ACM, Springer, Elsevier, Inderscience) around the world.

SPEAKERS

DAY 02

INTERNATIONAL

PUBLIC HEALTH CONFERENCE

21-23 MAR

Elahe Ezati*[1], Saeed Bashirian[1], Majid Barati[1], Manoochehr Karami[1] and Behrooz Hamzeh[2]

[1]Hamadan University of Medical Sciences, Iran
[2]Kermanshah University of Medical Sciences, Iran

Evaluation of the determinants of hookah use based on the protection motivation theory during the prevalence of COVID-19

Introduction: In recent decades, hookah use has been considered a common method of smoking. Since hookah use is one of the factors exacerbating COVID-19 disease, the present study aimed to identify the determinants of hookah use based on the protection motivation theory (PMT) during the of COVID-19.

Materials & Methods: This descriptive-analytical and cross-sectional study was conducted on 560 people aged 13 years living in Hamadan. Data were collected electronically using a researcher-made questionnaire consisting of three parts. The first, second, and third parts included demographic information, questions about hookah use, and information about the constructs of PMT, respectively. Data were analyzed using SPSS22 software.

Findings: The mean age of the participants was 28.8 ± 9.6 years. In the regression analysis of perceived reward structures (β = .378), perception sensitivity (β = 0.208), self-efficacy (β = .0166) were respectively the important predictors for the intention of hookah use behavior. Overall, the constructs of the PMT explain 71% of the variance of the changes in the behavioral intention construct in the participants. No significant relationship was observed between self-efficacy constructs (r = 0.039) and perceived cost. Before the of COVID-19, 41.8% of participants reported a history of hookah use, which dropped to 35% during the COVID-19 pandemic.

Conclusion: A greater correlation between the constructs of the PMT concerning protective behaviors against COVID-19 emphasizes designing educational programs based on this theory and the role of media to increase people's knowledge in preventive behaviors.

Biography

Elahe Ezati has completed his PhD Health Promotion Hamedan University of Medical Sciences, postdoctoral studies from Stanford University School of Medicine. She is has published papers in journals about hookah smoking in women and has been serving as an member of Health Education Association.

Muhammad Abbas
Riphah International University, Pakistan

Facing the threat of COVID-19 in Pakistan: A nation's dilemma

Objectives: In this article, we assess the resources, strategies, laboratory testing, awareness campaigns, and different treatment plans initiated by the government of Pakistan.

Methods: A comprehensive literature search was performed using Medline/PubMed, Embase, Web of Science, and Google Scholar and official websites of Government of Pakistan and international organizations to identify empirical literature published in English from 2019 to June 2020.

Results: It was not until the end of December 2019 that the first case of coronavirus disease 2019 (COVID-19) was discovered in Hubei province, China, with Wuhan the epicenter of it, sending the nation into an 11-week lockdown. It was the first of its kind and never seen before; hence, based on its novelty, the Chinese authorities named it novel coronavirus (2019-nCOV). Until January 23, 2020, there were only 17 cases in Wuhan, which surged to around 60,000 on February 16, 2020, with 2000 deaths. The World Health Organization declared it a global pandemic on January 30, 2020. Pakistan reported its first case of severe acute respiratory syndrome coronavirus 2 in February in Karachi. At the time, we did not realize the threat we were facing, and with even fewer resources at our disposal, it would turn out to be a major disaster in the coming days in Pakistan.

Conclusion: The COVID-19 crisis will likely have both short-term and long-term consequences for the general population, healthcare workers, and patients alike. But we need to get ahead of ourselves and come out on top for only not our survival, but also the survival of our population and healthcare system.

Biography

Dr. Muhammad Abbas is an Assistant Professor in the Department of Pharmacy Practice at Riphah Institute of Pharmaceutical University, Riphah International University since 2021. He received a Pharm-D from COMSATS University in 2015, and an MS Clinical Pharmacy from China Pharmaceutical University. He received his Ph.D. in Pharmacy with specialization in Clinical Pharmacy from the Nanjing University in 2021. He has expertise in both clinical and laboratory research. His research interests include medical oncology, clinical pharmacy practice, pharmacotherapy, pharmaceutical care, and new drug development. Dr Abbas has made over 45 scholarly contributions, including nearly 30 peer-reviewed research papers (Citations= 930; h-index = 14; i10-index = 21; Dec 2021). This research has been exclusively funded by Chinese government, provincial/territorial and municipal agencies. For his research efforts he was awarded a Nanjing University Research Achievement Award for outstanding research.

Alastair Kiszely
University Hospital Bristol, UK

Common injury patterns from standing electronic scooter users: The bristol experience

In the drive towards carbon neutrality, E-scooter UK-wide trials have been introduced by the Department of Transport, including a 12-month trial in Bristol from October 2020. The increasing usage of E-scooters has resulted in a surge of traumatic injuries associated with this new mode of transportation. The demographics and trends of injury patterns within the UK are yet to be reported. We report an overview of the experience from our Trauma and Orthopaedics (T+O) Department, set in a Trauma Unit in Bristol, from January 2021 to June 2021. During this period, we were referred 53 patients with E-scooter related injuries. Typically, patients were between 20 to 40 years old, with an average age of 31. Alcohol was a notable risk factor for injury, 26% of those referred to our department being under the influence of alcohol at the time of their injury. 73% of the injuries sustained were to the upper limbs, 62% being right sided, with hand and elbow injuries the most common. 20% of all patients referred required operative management, with an average length of stay in hospital of 2.5 days. We conclude that the economic burden of E-scooter related injuries to a T+O department can be significant. Most patients require imaging, splints and multiple follow up appointments, in addition to those requiring hospital admission and operative management. Our findings highlight the impact this novel form of transport has upon T+O departments and the injury patterns sustained, informing future service provision and public health awareness.

Johanna Deuke*, Renate Schramek* and Andre Hellwig
University of Applied Sciences, Germany

Digitization of modules in the health sciences for future oriented competences in the increasingly digital healthcare sector perspectives of an interdisciplinary approach regarding digital literacy

The University of Applied Sciences (HS Gesundheit) in Bochum is a state university in Germany that specializes in a range of courses in health professions. The Department of Community Health's (DoCH) bachelor's and master's degree programs provide special knowledge and skills for promoting health in the field of community health. Competencies for the practice of various health professions with direct client contact and for the care of people and groups in the structures of the health care system are established. Graduates are prepared for trans- and multidisciplinary work contexts. Due to the increasing digitalization of society and the health care system, it is necessary to adapt the range of courses. Current findings from the teaching evaluations (2019 und 2020), which was recently carried out purely digitally due to Covid-19, show that measures to promote digital skills in the student lifecycle, especially in the first semesters, are necessary. A better compatibility of studies and family or studies and employment can also be taken into account by digitizing parts of the degree programs. In the digital semesters, it became apparent that first-year students in particular are confronted with a high level of flexibility - e.g. with expectations of the free design of learning and work locations, definition of working hours and independent learning and working behavior, although there is still a leadership expectation (participatory). These expectations can be met in particular through flexible, digitally supported formats. The first results of the conception phase for innovative cross-degree blended learning formats are currently being developed and discussed. The experience gained in the digitization process at HS Gesundheit can make a significant contribution to universities around the world in the implementation of digital and hybrid offers. User-centered technology support, for example through the location-independent use of expanding realities and interactive, gamified learning content, is developed in the subject areas of public health, medical and scientific fundamentals, social and behavioral science fundamentals, scientific methods and fundamentals of communication and interprofessional cooperation. For this purpose, based on the analysis of existing teaching content and its didactic implementation, an agreement on new competence goals dominated by the changed requirements and the didactic communication will take place - this is done on the basis of the existing evaluation results and studies. At the same time, an overarching concept for the comprehensive blended learning format is being developed. As part of the digitization project, the results and challenges of the procedure are presented in retrospect. Modules as well as module components will be developed as a blended learning format for a cross-disciplinary and interdisciplinary basic course in health in the university's bachelor's courses and anchored in the curricula. The basic health science course should be characterized by flexibility, permeability and increased study motivation, as well as being geared towards the individual learning process.

Audience Take Away:

- Presentation of basic findings for the further development of study modules for future-oriented academic training in health care and health promotion
- References to the training of future-oriented competencies in an increasingly digital health care and health promotion
- First didactic drafts for new forms of learning in academic training in the health sciences

Biography

Johanna Deuke (M.A.) is a research assistant in the Department of Community Health at the University of Applied Science in Bochum. She completed her bachelor's degree in the field of vocational teaching within the health and care professions in 2018. She got her Master of Arts degree at the University of Duisburg- Essen in adult education with a focus on media education in 2021.

Renate Schramek habilitated in education science in 2018 at the Fernuniversität in Hagen. Sie and has been Assistant Professor since 2017 and in 2018 she is Full Professor of Health Didactics at the Department of Community Health. She leads several research projects in the field of community health. She is Member of the German Society for Educational Science, in the Scientific Advisory Board of the Centre for General Scientific Continuing Education at the University of Ulm and Board of the Interdisciplinary Association for Didactics in Health.

Li Yin
Karolinska Institute, Sweden

The effectiveness of the Swedish approach to combating the first wave of COVID-19

In combating the negative impact of the COVID-19 pandemic, the Swedish approach was far more relaxed than the approach commonly adopted by its neighboring countries. There has been ongoing controversy about the effectiveness of the Swedish approach relative to the common approach. Here, we present an analysis of the effectiveness of these approaches on public health outcomes -- COVID-19 mortality, total mortality and COVID-19 transmission -- during the first wave of COVD-19.

The key to the analysis was to adjust for ever-changing public health outcomes in addition to stationary confounding covariates such as gender, age and social economic status. During the first wave of COVID-19, the pandemic progressed quickly. The government adopted different interventions to reflect ever-changing pandemic situations during different periods in the first wave of the pandemic. As a consequence, the intervention during a period had influence from previous public health outcomes as well as on subsequent public health outcomes. In other words, public health outcomes were not only the outcomes of earlier interventions but also the confounding covariates of the subsequent inventions. In this analysis, we used methods in sequential causal inference to carry out the adjustment for the ever-changing public health outcomes.

From this analysis, we have the following findings. First, the Swedish approach performed far worse than the common approach for the public health outcomes. The Swedish measures in the later period of the pandemic presented considerable improvement and performed even better than the common measures in terms of total mortality.

Audience Take Away:

First, the controversy about the effectiveness of different approaches in combating COVID-19, and second, the critical role of a strong and swift early measure at the beginning of the pandemic outbreak in combating the resurgence of COVID-19 or outbreaks of any respiratory virus.

Biography

Li Yin is a senior statistician at Karolinska Institute, Sweden. He specializes in causal inference and missing data, study design, observational study, and Epidemiology

Xiaoqin Wang
University of Gavle, Sweden

Prolonged effect of the early Swedish measure on public health and economic outcomes during the first wave of COVID-19

Background and purpose: In combating the negative impact of the COVID-19 pandemic, the Swedish approach was far more relaxed than the approach commonly adopted by its neighboring countries, Norway, Finland and Denmark. Notably, the two approaches differed remarkably during the initial period of the pandemic: the common approach had a far swifter and stronger early measure than the Swedish approach. Here, we analyze the long-term influence of the early measure of these approaches on public health and economic outcomes during the first wave of the pandemic.

Challenges and solutions: pandemic progression was a complex stochastic process in which measures yielded outcomes and outcomes in turn influenced subsequent measures. In this context, the measure taken during a certain period not only had a short-term influence on the immediate outcome in this period but also a long-term influence on the outcomes in the subsequent periods. In recent decades, one of the most exiting methodological developments in statistics is sequential causal inference, which addresses such complex stochastic processes. (Hernan & Robin (2020), Causal Inference: What If. Chapman & Hall/CRC, Boca Raton; Wang & Yin(2020), New G-Formula for the Sequential Causal Effect and Blip Effect of Treatment in Sequential Causal Inference, Annals of Statistics, 48, 138-160.)

Achievements: The Swedish approach performed far worse than the common approach for the public health outcomes, and the poor performance was largely due to its early measure during the initial period of the pandemic. The Swedish approach performed worse than the common approach for unemployment, but its early measure led to less poor performance for unemployment than for the public health outcomes.

Audience Take Away:

- A strong and swift early measure at the beginning of the pandemic outbreak is critical to combat the resurgence of COVID-19 or outbreaks of any respiratory virus,
- General methodology of evaluating the prolonged effect of a government policy on public health and economic outcomes.

Biography

Xiaoqin Wang is an associate professor at the University of Gävle, Sweden. She specializes in causal inference, analysis of missing data, Bayesian analysis, longitudinal study with time dependent covariates, applied statistics including study design, case-control study, and survival analysis.

Pragya Pranjali*[1], Sanjeev Dham[1], Subroto Roy[2], Padamshree Pandey[2]

[1]Smile Foundation, India

[2]Special Projects and Institutional Partnership, India

Standardizing the process of establishing the program implementation priority through socio behavior change analysis a case study from tribal district of Gujarat, India

The adolescence period is an intense anabolic period when the requirements for all nutrients increases. The adolescents are more vulnerable to the malnutrition. The food habits and lack of nutritional awareness are considered to be the main factors in determining nutritional status. The nutritional status shows the quality of life and the use of resources depends on the influencing behaviour. Here, the OAM theory had been used which suggests that there are three independent work system components which shapes the research characteristics and also help to contribute the success of the organisation. According to the theory, organisational interests are best served by a system that attends to the areas of research opportunity, ability and motivation (OAM). The OAM framework also clarifies the function and meaning of motivation in theoretical models.

Opportunity: Relevant constraints, such as the availability of time and resources, also enable the behaviour. Typically, we seek opportunities to complete a task that will result in a benefit to ourselves or to others. The nutritional supplements available with the ANM account for 77.8 percent. But the consumption of IFA tablets account for 14.3 percent. During the pregnancy, the respondent had not consumed the IFA tablets. But she had received the supplementary food from the Anganwadi. The health worker visited one time for the health check-up. And during pregnancy, the respondent also visited the health facility. In few villages, girls are getting the IRON tablets and they are not facing any kind of health problems such as vomiting or indigestion etc. due to tablets. Awareness about anemia is very less.

Ability: Abilities are the level of cognitive, emotional, financial, physical or social resources a person can apply to perform a specific behaviour. Around 14 percent of adolescent girls or the respondents between age group 14-17 and 18-19, have no knowledge about the reasons and the consequences of anaemia who were consuming the IFA tablets. There was lack of discussion with mothers' which accounts for 14 percent. And 15 percent were having lack of discussion with anyone who was consuming the IFA tablets. Whereas 95 percent of adolescent girls were facing lack of discussion with any health personnel, who were non-consumers the IFA tablets. And more than 85 percent of respondents, who were non-consumer of IFA tablets, were not attending MAMTA DIWAS or any other discussion forum, exhibition etc. The adolescent girls who were not attending class held specific to them includes 14 percent from consumers of IFA tablets and 86 percent from the non-consumers of IFA tablets. And 3 respondents from IFA consumers and 4 respondents from IFA non-consumers have not heard about any advertisements related with social support.

Motivation: The needs and wants of an individual may influence them to behave in a certain way. Motivation is the incentive for behaviour. Threat (Risk Assessment): 12 respondents who were consumers of IFA tablets were facing lack of understanding of consequences of anemia (mild to moderate) and 78 respondents were the non-consumers of IFA tablets.

Audience Take Away:

- To develop a standardized method to prioritize the issue to be address in a programme implementation framework.
- The OAM analysis works on the odds ratio- that is attack ratio and deciphering which exposure plan/ strategy will enable in addressing the issue and targeting the segmented population.
- This will enable the program designer and implementor have a focused approach towards designing an achieving the desired outcome.
- The analysis helps in computing odds ratio which in programme glossary will lead towards better understand on estimating the step wise- short- and long-term gains.

Biography

Pragya Pranjali is Social Scientist and Entrepreneur with a niche specialization Public Healthcare domain. Working for about more than 1.5 decades now, she has multiple faceted qualifications towards her credit- public health management, demography, law, health communication etc. Her expertise in developing measurement & learning framework for social and behavior aspects of healthcare thematic areas, in particular. Having several accolades and writings to her credit, she has a third eye- qualitative insight towards converting numbers in stories, thereby, advising program in long run. She has been contributing to several scientific blogs and researches in her working span.

Julia Lelis Vieira* and Maria Cristina Pereira Lima
Sao Paulo State University, Brazil

Education for leisure as a public health strategy – Health promotion with low financial cost

Leisure experiences can be a valuable tool for maintaining physical and psychological well-being. Studies show that experiencing leisure in free time is associated with better quality of mental and physical health. In the last five years, there has been an increase in the number of publications investigating leisure and its benefits for the mental health of adult individuals in transition to retirement (LAZAR; NGUYEN, 2017; LIN; JENG; YEH, 2018; LI; HSU; LIN; , 2019; MELLA et al., 2017; BARBOSA; MURTA, 2019; FANCOURT; TYMOSZUK, 2019; FU; LI; MAO, 2018; DENG; PAUL, 2018; KO; YEUNG, 2018). Physiologically, it is possible to observe such effects when the brain stimulation areas of experiences in the field of sensory skills, memory, motor coordination and emotions are analyzed (RUBIN & SAFDIEH (2008). These effects occur through the release of neurotransmitters known to act in the stimulation of positive emotions - serotonin, dopamine, gamma-aminobutyric acid, noradrenaline and oxytocin, thus generating sensations such as: control of mood, sleep, pleasure and well-being, as well as a feeling of tranquility, creativity, focus, proprioception, cognitive performance and motor, feeling of euphoria and depending on the region acting in the brain an increase in pleasure (ALVES JR, 2018). Science has already proven the physiological efficiency of these neurotransmitters in the physical and mental health of the human being, however there is a gap between this knowledge and how to stimulate such biochemical releases in the human organism in the daily life of each individual. In this sense, the proposal one of the most discussed topics is education for leisure as a public health strategy, using leisure spaces and free time as low-cost tools with beneficial effects on physical and mental health.

Audience Take Away:

- The objective is to carry out an education about leisure – theoretical concepts and practical possibilities in life with minimal monetary cost.
- This education for leisure will bring, regardless of age, education, race or financial condition, the opportunity for everyone to experience leisure in a conscious way and thus practice a healthier life with less risk to physical and mental health.

Biography

Dr. Julia Lelis Vieira holds a degree in Physical Education from the University of Franca (2007), a degree in Physical Education from the University of Franca (2006), a master's and doctorate in Public Health from the Universidade Estadual Paulista Júlio de Mesquita Filho (2015/2022). She has experience in the area of Public Health, with an emphasis on Health Promotion for different audiences, working mainly on the following topics: leisure activities, leisure for specific groups and mental health.

Rodrigo Guerrero Velasco
University of Valle Cali, Colombia

Application of a method to prevent violence the cat of Cali, Colombia

We applied a method traditionally used by epidemiologists to control diseases of unknown causes to the control of a social problem, violence. The method is based on a precise definition, careful observation, identification of risk factors, formulation of hypotheses, design, application and evaluation of interventionsi In accordance with World Health Organization we defined violence as the use -or threat of use-of physical force with the intention to inflict injury. From revision of literature and our own observations we accepted that violence was multifactorial and identified several risk factors: deficient law enforcement; availability of firearms; increased social alcohol consumption; organized crime; inequity and poverty; biological; and cultural factors. To improve quality of data the city of Cali began an Epidemiological Surveillance System (ESS) also called Observatory of Crime to conduct careful analyses of victim's age and sex, time, type of weapon and identify homicide trends Initial interventions led to successful interventions on restriction of alcohol selling and carrying firearms that were carefully documented. Simultaneously other risk factors like improving the capacity of the police and judicial systems were applied. With support of the National government a strategy to find and neutralize organized crime gangs operating in the city were carried out. Most violent communes, which were also the poorest, benefited from a well- funded, comprehensive investment program, called TIO, an acronym for Territories of Investment Opportunities. GINI Coefficient, showed a significant I improvement of Cali inequality. As shown in included homicide rates of Cali were drastically reduced during the application the public health method.

Biography

Rodrigo Guerrero Velasco is the mayor of Cali, Colombia. He has spent his life in academia, teaching epidemiology for undergraduate and graduate students at the Universidad del Valle, where he has worked in various administrative capacities such as the Head of the Department of Epidemiology, Dean of Health Sciences, University President and the Secretary of Health of Cali. He is an Honorary Professor and active member of CISALVA, Violence Research Center of Universidad del Valle, and is also a member of the Institute of Medicine (National Academy of Sciences). In 2008, Dr. Guerrero was elected city counselor of Cali and, in 2011, he was re-elected for a second term as Mayor of Cali. His academic life has been intertwined with social development work, initially as the head physician in a health center and later as Director of the Fundación Carvajal. More recently, he has dedicated time to the work of Vallenpaz, a nonprofit organization devoted to helping peasants in conflict-ridden rural areas of Colombia. He graduated as an MD from the Universidad del Valle in Cali, Colombia and later received an M.Sc. and Ph.D. in Epidemiology from Harvard University, Boston, MA.

Akshay Patil
Tata Memorial Center, India

Mediation analysis of the efficacy of the nimotuzumab-cisplatin-radiation (NCR) improve overall survival (OS): A HPV negative oropharyngeal cancer patient (HPVNOCP) cohort

Objective: Mediation analysis identifies causal pathways by testing the relationships between the NCR, the OS, and an intermediate variable that mediates the relationship between the Nimotuzumab- cisplatin-radiation (NCR) and OS.

Introduction: In randomized controlled trials, the primary interest is in the mechanisms by which an intervention exerts its effects on the outcomes. Clinicians are often interested in how the intervention works (or why it does not work) through hypothesized causal mechanisms. In this work, we highlight the value of understanding causal mechanisms in randomized trials by applying causal mediation analysis in a randomized trial in oncology.

Methods: Data were obtained from a phase III randomized trial (Subgroup of HPVNOCP). NCR is reported to significantly improve the OS of patients locally advanced head and neck cancer patients undergoing definitive chemoradiation. Here, based on trial data, the mediating effect of NCR on patient overall survival was systematically quantified, through progression-free survival(PFS), disease-free survival (DFS), Loco-regional failure (LRF), and the disease control rate (DCR), Overall response rate (ORR). Effects of potential mediators, on the HR for OS with NCR versus cisplatin-radiation (CR), were analyzed by Cox regression models. Statistical analyses were performed using R software Version 3.6.3 (The R Foundation for Statistical Computing)

Results: Effects of potential mediator PFS was an association between NCR treatment and OS, with an indirect-effect (IE) 0.76(0.62 – 0.95), which mediated 60.69% of the treatment effect. Taking into account baseline confounders, the overall adjusted hazard ratio of death was 0.64 (95% CI: 0.43 – 0.96; P=0.03). The DFS was also a significant mediator and had an IE 0.77 (95% CI; 0.62-0.93), 58% mediated). Smaller mediation effects (maximum 27%) were observed for LRF with IE 0.88(0.74 – 1.06). Both DCR and ORR mediated 10% and 15%, respectively, of the effect of NCR vs CR on the OS with IE 0.65 (95% CI; 0.81 – 1.08) and 0.94(95% CI; 0.79 – 1.04).

Conclusion: Our findings suggest that PFS and DFS were the most important mediators of the OS with nimotuzumab to weekly cisplatin-radiation in HPVNOCP.

Biography

Akshay Patil (Working as an Oncology Biostatistician), currently working in Tata Memorial Centre, Mumbai, India, working on multiple indications in oncology therapeutic. I feel well equipped to fill since, I was a full-time biostatistician for Tata Memorial Centre. A focused, determined and capable Biostatistician who has a track record of providing world-class biostatistical services in cancer research areas. Worked in a variety of different research environments.

Roberta De Freitas Campos

FIOCRUZ, Brazil

Observatory of international regulation for risk factors associated with non-communicable chronic diseases

According to estimates by the World Health Organization (WHO), noncommunicable chronic diseases (NCDs) are currently seven of the top 10 causes of death in the world. The data refer to the period 2000 to 2019. In 2019, all NCDs gathered accounted for 74% of deaths worldwide. Given this global panorama, in which populations from different countries face a pandemic of non-communicable chronic diseases, it is essential that states act in the elaboration of public policies to control these diseases. Thus, it is not enough to prevent primary care and promote healthy habits by health services. It is essential to regulate industrial production and the growing lobbying of transactional companies that interfere in the lifestyle of populations through the commercialization of products associated with the development of NCDs.

Audience Take Away:

- Why should one regulate? By promoting the regulation of risk factors associated with NCDs, governments act directly on the impact of economic interests on public health, promoting environmental conditions favorable to good health. It is essential that consumers are removed from exclusive responsibility for the consumption of unhealthy products.
- The Observatory facilitates access to an international regulatory landscape of protection against the risk factors studied (tobacco, alcoholic beverages, ultra-processed foods and pesticides). Students, researchers and managers of public policies aimed at confronting NCDs can access, in an easy and schematized way, recommendations for regulation issued by WHO, ECOSOC, UN and FAO. These international recommendations provide subsidies for the improvement of public policies aimed at controlling the four risk factors.

Biography

Graduated in Law at the Catholic University of Goiás, Brazil, Roberta de Freitas holds a PhD in Global Health and Sustainability at the University of São Paulo with a co-tutorship period at the University of Nantes in France. Her doctoral thesis, presented in 2018, dealt with international cooperation in favor of strengthening the right to health. Roberta de Freitas also holds a Master's degree in Public and Private International Law and International Relations at the Universidad de Sevilla, Spain. Currently, she coordinates the Graduate Program in Public Health Policies at the Fiocruz Brasília Government School and conducts research at the Observatory for International Regulation of Risk Factors Associated with NCDs.

Dibesh Karmacharya*[1,2], Rajindra Napit[1,2], Prajwol Manandhar[1,2], Ashok Chaudhary[1], Bishwo Shrestha[1], Ajit Poudel[1,2], Roji Raut[1], Saman Pradhan[1,2], Samita Raut[1], Sujala Mathema[1], Rajesh Rajbhandari[1,2], Sameer Dixit[1], Jessica S. Schwind[3], Christine K Johnson[4]

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[3]Georgia Southern University, USA
[4]University of California, USA

Rapid genomic surveillance of SARSCoV2 in a dense urban community using environmental sewage samples

Understanding disease burden and transmission dynamics in resource-limited, developing countries like Nepal is often challenging due to a lack of adequate surveillance systems. These issues are exacerbated by limited access to diagnostic and research facilities throughout the country. Nepal has one of the highest COVID-19 case rates (915 cases per 100,000 people) in South Asia, with densely-populated Kathmandu experiencing the highest number of cases. Swiftly identifying case clusters and introducing effective intervention programs is crucial to mounting an effective containment strategy. The rapid identification of circulating SARS-CoV-2 variants can also provide important information on viral evolution and epidemiology. Genomic-based environmental surveillance can help in the early detection of outbreaks before clinical cases are recognized, and identify viral micro-diversity at regional levels that can be used for designing real-time risk-based interventions. This research aimed to develop a genomic-based environmental surveillance system for detecting and characterizing SARS-CoV-2 in sewage samples of Kathmandu using portable next-generation DNA sequencing devices. Out of 20 selected sites in the Kathmandu valley, sewage samples from 16 (80%) sites had detectable SARS-CoV-2. A heat-map was created to visualize transmission activity in the community based on viral load intensity and corresponding geospatial data. Further, 41 mutations were observed in the SARS-CoV-2 genome. Some detected mutations (n=9, 2%) were novel and yet to be reported in the global database, with one indicating a frameshift deletion in the spike gene. We also observed more transition than transversion on detected mutations, indicating rapid viral evolution in the host. Our study has demonstrated the feasibility of rapidly obtaining vital information on community transmission and disease dynamics of SARS-CoV-2 using genomic-based environmental surveillance. Without proper disease surveillance system in place, developing countries like Nepal are struggling to detect and track COVID19 cases. Kathmandu valley with a population of more than 4 million, is one of the most COVID19 affected cities in Nepal. Detection of SARS-CoV-2 in untreated wastewater has been reported in number of cities around the globe- including Milan (Spain), Brisbane (Australia) and Boston (USA). Most studies published on the use of environmental surveillance for SARS-CoV-2 have been from high-resource countries. From samples collected from the open sewage of Kathmandu, we have detected and characterized variants of SARS-CoV-2 using portable next generation genomic tool and created a heat-map to visualize SARS-CoV-2 transmission activity in the community based on viral load intensity and corresponding geospatial data-thereby successfully demonstrating the feasibility of using genomics tool on environmental samples for SARS-CoV-2 surveillance. Genomic based environmental surveillance can be used as a cost effective early warning system and complement clinical surveillance, providing valuable information on viral diversity and evolution of circulating SARS-CoV-2 on a population level.

Houneida Sakly*[1], Mourad Said[2]

[1]University of Manouba, Tunisia

[2]International Center Carthage Medical- Monastir, Tunisia

Big data and artificial intelligence for E-Health: Case study COVID19

Audience Take Away:

- Big Data for E-health Industry and Technological Trends was described
- Framework and Tools for Big data and Machine learning analytics is developed
- Security regulations, big data confidentiality is discussed
- An overview for Machine learning types, techniques and learning concepts is depicted
- Weak side of machine learning training and prediction model is discussed

Biography

Houneida Sakly is a PhD and Engineer in Medical Informatics.She is a Member in research program “deep learning analysis of Radiologic Imaging within stanford university.A member of MIT-Harvard Medical school Program.Her main field of Field of research is the Data science (Artificial Intelligence,Big Data,blockchain, Internet of things...) applied in Healthcare.She is a member in the Integrated Science Association (ISA) in the Universal Scientific Education and Research Network (USERN) in Tunisia.Currently, she is serving as a lead editor for edited book” Trends of Artificial Intelligence and Big Data for E-Health”, will publish by the Springer and a special issue with sage journals intitulied “Intelligent Healthcare for Medical Decision Making: AI and Big Data for Cancer Prevention”.Recently, she has won the best researcher award in the International Conference on Cardiology and Cardiovascular Medicine.

POSTERS

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Christian Tesado

Johnson & Johnson, Singapore

Oral fluid, electrolytes and energy management in various adult and geriatric illnesses beyond diarrhea: An indian expert panel delphi consensus recommendation

Statement of the Problem: Dehydration is a highly prevalent issue which many a time goes undetected causing delayed recovery, and an increased risk of hospitalization and mortality. Specific to non-diarrheal dehydration, very few international guidelines provide recommendations of oral fluids, electrolytes, and energy (FEE) management in adult/geriatric patients. Moreover, there is a lack of comprehensive recommendation on the role of oral FEE in non-diarrheal illnesses.

Methodology: A modified Delphi approach was used to develop consensus recommendations on the management of oral FEE in Indian adult/geriatric patients with non-diarrheal illnesses. In round one, 130 statements including 21 open-ended questions were circulated among ten experts consisting of a gastrointestinal surgeon, diabetologist, infectious disease and critical care specialist, gastroenterologist, internist, and a dietician. The expert panel was then asked to either 'strongly agree, 'agree', 'disagree', or 'strongly disagree' for statements and provide responses to open-ended questions and every disagreement were open for debate to arrive at conclusive statement. Consensus was pre-defined at 75% agreement. Presentation of relevant literature was done before and during two virtual discussions. Some statements were actively discussed and deliberately debated. Those that did not reach consensus were re-circulated for another round.

Findings: Overall, the final consensus covered various domains such as assessment of dehydration, dehydration in geriatrics, energy requirement, impact of oral FEE on patient outcome, and fluid recommendations in acute and chronic non-diarrheal illnesses. Oral FEE should be recommended as part of core treatment from day 1 of illness for improved patient outcomes. Appropriately formulated fluids in a ready-to-drink format is a good option due to its quality-standard, convenience, known electrolyte and energy content, and more palatable, which improves compliance.

Conclusion & Significance: These consensus statements provide guidance for oral fluids, electrolytes, and energy recommendations for adult/geriatric patients with various non-diarrheal illnesses.

Biography

Dr. Tesado studied Biology in the University of the Philippines and graduated in 2003. He further pursued a medicine degree in the same university and graduated in 2008. He is currently the Johnson & Johnson regional medical affairs lead for digestive health for Asia-Pacific and is currently based in Singapore.

Wang Jin-yong*[1], Liu Xin[2], Ji Ling-bin[3]

[1]Chongqing Medical and Pharmaceutical College, China
[2]The Center for Disease Control and Prevention in Ruili city, China
[3]Dali university, China

Reflection on prevention and control of infectious diseases at Ruili port based on multiple COVID-19 outbreaks

Objective: To find out the cause of local positive cases at Ruili port several times from September 12th, 2020, to July 7th, 2021 to provide effective reference for the prevention and control of COVID-19 outbreak in the future.

Method: Analyze the local positive cases in terms of sex, age, nationality, nation and place of residence in the several epidemic outbreaks.

Results: All the local positive cases were connected with the Burmese patients, for example the first local positive case was a Burmese patient on September 12th, 2020. The recent local positive cases were related with the strict management area near the China-Myanmar border.

Conclusion: The prevention and control of the COVID-19 epidemic situation is arduous and complicated. It tests the country's governance system and governance capacity in the non-traditional security aspects. So, the government must carry out the coordinated governance with the "party, government, military, police and people" policy in the epidemic outbreaks prevention and control concerning the epidemic prevention personnel, armamentarium, medical institution and civic health education . At the same time, our government must carry on international cooperation with Burmese government actively. All these measures might control the COVID-19 epidemiological transmission effectively.

Audience Take Away:

- To know the base situation about the four times COVID-19 outbreaks.
- Why did the COVID-19 outbreak happen at Ruili?
- How will our government carry on the prevention and control the infection disease?

Biography

Mrs. Wang studied Prevention Medicine at the Sichuan University, China and graduated as MMSC in 2007. She then joined the research group of Prof. Shi wu-xiang at the school of Public health, Dali University. She joined the Chongqing Medical and Pharmaceutical College in February, 2021. She has published more than 30 research articles in Chinese medical journals.

Jody Brook*[1], Sophia Mazzetti[2], Kiley Liming[1]

[1]University of Kansas, USA

[2]University of Kansas Medical Center, USA

Utlizing publicly available data to inform prevention planning for adults and children involved with child welfare service systems

In the United States, there is an emerging trend to move public child welfare service efforts upstream in the fight against maltreatment. By addressing community level conditions and barriers that keep families from functioning in a healthy and thriving manner, service systems can more adequately address root challenges that contribute to adverse experiences for children and their caregivers. Part of this shift in service paradigm requires that child welfare service agencies and their community partners engage in robust assessment of local and state conditions, strengths and needs. These needs often center on access to affordable care, the presence of early childhood services, food insecurity, housing, and employment conditions (social determinants of health). There are multiple sources of underutilized publicly available data that can inform this prevention programming. In this presentation, the co-authors will provide an overview of data available for use in assessment of individual adult, child and family level conditions that could be influential in the delivery of child welfare services. Specifically, information regarding the use of the U.S. Centers for Disease Control and Prevention's Behavioral Risk Factor Surveillance System, the Substance Abuse Mental Health Services Administration's Drug Abuse Warning Network, the Substance Abuse Mental Health Services Administration's National Mental Health Services Survey, the National Survey on Drug Use and Health, and the National Child Abuse and Neglect Data System will be provided.

Audience Take Away:

- Attendees will have increased knowledge of publicly available data that may be used to inform community assessment;
- Attendees will have increased knowledge of strengths, limitations, and useful data elements from relevant datasets;
- Attendees will have increased knowledge and skills related to frameworks used for community assessment specific to child and family well-being;
- Attendees will have increased knowledge of application of existing data to community conditions;
- Attendees will be able to utilize this knowledge in assessing or designing assessment methods for their own community level initiatives;
- Attendees will understand the importance of community partnerships and networks in addressing caregiver conditions that contribute to child maltreatment.

Biography

Dr. Jody Brook is an Associate Professor at the University of Kansas, School of Social Welfare. Dr. Brook serves as a faculty fellow at the Center for Teaching Excellence. Her scholarly work focuses on the intersection of parental substance abuse and child maltreatment and the design and delivery of public services to highly vulnerable, substance abuse affected families involved with child welfare services. Her work has resulted in over 40 peer reviewed publications and 60 national and international scholarly presentations.

Alaa Alabadi-Bierman
Loma Linda University, USA

The polypharma study: Association between diet and amount of prescription drugs among seniors

Polypharmacy, commonly described as the use of five or more prescribed medications, is a prevalent health issue among seniors because of the potential adverse side effects due to medication interactions. The main purpose of this study was to investigate the association between dietary patterns and number of medications used. We hypothesized that a plant-based diet and healthy lifestyle choices decreases morbidities and number of medications taken. Data on 328 participants, aged 60 years or older, were collected through questionnaires and measurements at the Loma Linda University Drayson Center in Loma Linda, CA, between 2015 and 2016. The dependent variable was the number of pills taken, used as counts, and the main exposure was the type of diet adopted. Negative binomial regression was used for analysis. Results suggest that a vegan diet reduces the number of pills by 58% compared to non-vegetarian (IRR=.42 [95% CI: .25-.70]), even after adjusting for covariates. Increases in age, body mass index (BMI), and presence of disease suggest an increased number of pills taken. A vegan diet showed the lowest amount of pills in this sample. Body mass index also had a significant positive association with the number of pills.

Audience Take Away:

- The audience will be able to use what they learn by applying the healthy eating habits in their lifestyle as well as their patents/clients to reduce the number of pills taken.
- This research is could be used by other faculty to expand their research or teaching in the field of Public Health.
- A vegan diet reduces the number of pills taken compared to non-vegetarian diets.
- Increases in age, body mass index (BMI), and presence of disease suggest an increased number of pills taken.
- Body mass index had a significant positive association with the number of pills.

Biography

Dr. Alabadi-Bierman studied Research Epidemiology at the Loma Linda University and graduated as MPH in 2018. She then started her doctoral journey at the same institution in Preventive Care, she is expected to graduate with her DrPH in June 2022. She joined the Preventive Care research group of Dr. Dos Santos at the Department of Healthy Lifestyle and Disease Prevention, Office of Preventive Care as a research assistant. During this year (2021), she obtained the position of a Health Educator at the Beaver Medical Group. She has published her first two articles in the American Journal of Lifestyle Medicine.

KEYNOTE FORUM

DAY 03

INTERNATIONAL

PUBLIC HEALTH CONFERENCE

21-23 MAR

Taha Mollah*[1,2], Harry Christie[1], Marc Chia[1,2], Prasenjit Modak[2], Kirby R. Qin[3,4]

[1]St.Vincent's Hospital, Australia

[2]Swan Hill Hospital, Australia

[3]Austin Health, Australia

[4]Monash University, Australia

A population-based, comparative analysis of gallbladder-associated admission and cholecystectomy rates across Australia and Aotearoa New Zealand (2000 - 2019)

Aims: We aimed to provide a contemporary update on the trends of symptomatic gallbladder-associated hospital admissions and cholecystectomy in Australia and Aotearoa New Zealand (NZ).

Methods: National healthcare registries were used to obtain data on all episodes of cholecystectomy and hospital admissions for patients ≥15 years from public and private healthcare institutions.

Results: In Australia (2000-2019), there were 1,331,631 hospital admissions and 964,097 cholecystectomies, 873,249 (90.6%) laparoscopic. In NZ (2004-2019), there were 163,084 admissions and 98,294 cholecystectomies. The 15 - 54 year old age group saw operative / admission rates increase by +4.0% / +1.9% in Australia and +6.6% / +4.9% in NZ. Hospital admissions decreased -11.3% in Australia but rose +7.3% in NZ. Cholecystectomy rates declined by -4.1% in Australia and rose +6.8% in NZ. Intervention rate has risen in Australia by 11.8% (67.1% to 75.0% of hospital admissions).

Conclusion: There has been a decline in symptomatic gallbladder-associated hospital admissions and interventions in Australia, but a rise in NZ, with a shift to the 15 - 54 year age group. Future research should focus on identifying risk factors for increased disease and operative interventions amongst younger demographics.

Audience Take Away:

- Gallbladder disease and its intervention represent a significant healthcare burden – it accounted for A$278 million in healthcare expenditure in 2016 in Australia
- Improving our understanding of the trends in operations and admissions allows us to direct further epidemiological investigation into the demographics and populations at risk
- This presentation will guide the focus of future research should focus on identifying risk factors contributing to increased disease and operative interventions amongst younger demographics.
- Further, this is an area with no contemporary literature and has not previously been published

Biography

Dr. Taha Mollah is a general surgical trainee at St. Vincent's Hospital in Melbourne with a special interest in public health. He graduated with first class honours from Monash University, Australia in 2018 and has previously presented on the epidemiology of gallbladder cancer and inflammatory bowel disease.

SPEAKERS

DAY 03

INTERNATIONAL

PUBLIC HEALTH CONFERENCE

21-23 MAR

Pragya Pranjali*[1], Sanjeev Dham[1], Subroto Roy[2], Padamshree Pandey[2]

[1]Smile Foundation, India

[2]Special Projects and Institutional Partnership, India

Improving the health conditions of adolescent girls 14-19 years through improved nutrition and improved haemoglobin level evidences from tribal district of Gujarat India

Iron deficiency is one of world's largest nutritional challenge causing 40% of maternal deaths in the world (World Bank) malnutrition weakens over all the immune systems. A recent report by World Vision, it is estimated that an additional 5 million children will suffer from malnutrition as a direct result of COVID-19, a 40% increase over last year. In the tribal-dominated Banaskantha's Amirgarh block 78% adolescent girls (14 – 19 years - as per National Family Health Survey - NFHS -4) are anaemic and in turn suffer iron deficiency which has caused delays in cognitive development and decreased potential of healthy wellbeing. A baseline study conducted by Smile Foundation in 38 villages of Amirgarh block showed 50% of girls were moderately anaemic and about 13% severely anaemic of whom (49%) dropped out of school after Class 6 or 8 and 17.6%, never attending school. The study also found out that 84% never consumed multi-vitamin or folic acid supplements and most of them had no awareness of anaemia or ever of having checked their anaemic status. The project built capacity of 1000 adolescent girls on nutrition, balanced diet, menstrual hygiene and life skills. It provided training on the Lucky Shakti Leaf Supplementation which is simple and effective cooking tool (250gms of iron block) that adds extra iron to daily foods or drinks. A case control study was done to generate evidence on the anaemia management with the use of Lucky Shakti Leaf. Around 500 girls out of 1000 were provided leaf along with other interventions and 500 girls were part of regular interventions and no leaf supplement will be given to them. The presentation will discuss the evidences generated on improvement of haemoglobin level with the use of Lucky Shakti Leaf. The iron leaf is actually 250gms of iron block which is to be used as a catalyst to release iron from the food being prepared. The use of iron utensils for cooking is conventionally used in India to ensure the consumption of iron through food being consumed on daily basis. With increase in urbanisation and use of modern day utensils such as aluminium and non- sticks etc. the release of iron in food is limited and restricted. The result being, one is dependent on IFA supplements, which is usually considered as medicine among common masses. Furthermore, the awareness that citrus fruits, alternatively Vitamin C, helps in iron absorption of iron contents from food being cooked and consumed. Hence, even if IFA is being consumed devoid Vitamin C tablet the required amount of iron is not being absorbed by the body. The situation becomes all the more sensitive during adolescent phase particularly among girls (14-19 years), when the puberty has onset- menarche attained, the body preparing itself for reproduction etc. Wherein, the body will need a holistic intervention from all the facets, nutrition, supplements, cooking pattern etc. The presentation here will discuss the outcome on improvement of haemoglobin level, with 360- degree intervention, through a case- control study.

Audience Take Away:

- Following conventional pattern of cooking is strong catalyst towards improvement of haemoglobin level, thereby improving anaemia level among adolescent girls.
- Awareness generation on role of Vitamin C/ citrus fruits on the absorption of iron from food being prepared and consumed.
- Adolescence is a phase which requires 360-degree holistic intervention to yield healthy well- being life.
- Setting right context for traditional pattern of eating and consumption of food is crucial for yielding long term gains in terms of sustainability.

Biography

Pragya Pranjali is Social Scientist and Entrepreneur with a niche specialization Public Healthcare domain. Working for about more than 1.5 decades now, she has multiple faceted qualifications towards her credit- public health management, demography, law, health communication etc. Her expertise in developing measurement & learning framework for social and behaviour aspects of healthcare thematic areas, in particular. Having several accolades and writings to her credit, she has a third eye- qualitative insight towards converting numbers in stories, thereby, advising program in long run. She has been contributing to several scientific blogs and researches in her working span.

Hannah Adjei-Mensah
Korle-Bu Teaching Hospital, Ghana

Psychosocial support for health workers ensuring the mental health of health workers in the mist of a pandemic

The arrival and the rapid spread of COVID-19 pandemic have reinforced the importance of mental Health and the critical need to create a mentally healthy workplace for the healthcare workforce. Healthcare providers and mangers in the healthcare industry cannot ignore the mental stress that covid-19 has presented to the workplace adding to the already existing psychological and emotional challenges faced by healthcare workers. Today, the healthcare industry especially traditional care providers are experiencing one of the most disruptive periods in time. The health workforce has over the years suffered both emotional and psychological stress related to providing care and restoring health of the sick and vulnerable in addition to the physical, biological, and chemical hazards they face in their daily work. The healthcare work environment is dangerous and exhausting and there is a 'tough guy' mentality which may discourage healthcare workers from discussing issues pertaining to mental health because of the false assumption that they can handle their mental health challenges better than any other group of workers. The aim of setting up a psychosocial support team for the hospital during the covid-19 pandemic was to help in addressing the emotional and psychological stresses that staff and patients faced due to the insurgence of the pandemic. The mandate was to offer biopsychosocial support to staff and patient who will be infected with the virus with a scope spanning from pre-test counselling, disclosure of results, support during quarantine and reintegration to the work environment after quarantine. Psychological tools used in assessing stress and coping levels included the DASS 21 for emotional assessment. Support and therapy were provided as required. The establishment of this team helped to reduce the psychological impact of the pandemic on most of our health workers and the public. Findings from our work confirmed that health workers go through a lot of psychosocial challenges with little or no support, perhaps due to the false assumption that they are capable of managing their own health. To help in addressing these emotional and psychosocial challenges of health workers, an employee assistance program was recommended to the hospital. Preparatory work to get this service established has been worked on awaiting approval and support by the hospital's management.

Audience Take Away:

- Participants will be informed and appreciate how the early stages of the pandemic was managed in our country, most specifically in the premier teaching hospital to aid in developing and improving mental health services for Healthcare workers.
- Appreciate the advances we have made in establishing an Employee assistance program in the hospital and the challenges faced with such public health interventions in a public organization.
- Audience will be informed with evidence from our work on the importance of psychological audits at the workplace and how formally instituting programs to support employee psychosocial health influences and impacts on all aspects of the job.
- The need for more studies on workplace psychosocial support will also be brought to bear.

Biography

Hannah has over ten years' experience in the healthcare industry with practice in health education, Critical care, Occupational health & safety, and public health services. She currently works as an Occupational Health and Safety practitioner and coordinates the Employee Assistance Program (EAP) at the Korle-Bu Teaching Hospital. Her interest is to promote the emotional, psychological, and physical health & safety of workers. Hannah does this by focusing on high target interventions to improve wellbeing, productivity and job performance through training and leadership. She is a "Vision Zero" trainer with the International Labour Organization/International Social Security Association. Her areas of interest and expertise include Occupational Risk Assessment and safety audits, Hazard Mitigation, First Aid, Emergency Preparedness and Employee Assistance Programs. she collaborates with several institutions and organizations through training in maintaining occupational health and safety. Her masters' thesis looked at "Optimizing performance of maternal and neonatal healthcare workers at the primary care level in Ghana".

Susan Onyango
Euclid University, Kenya

Diabetes mellitus in people living with HIV aids

Background: The rising burden of Non-Communicable Diseases (NCDs) in low and middle-income countries are attributable to increased life expectancy where antiretroviral therapy (ART) and HIV viral suppression have led to increased life longevity. Comorbidities including diabetes mellitus (DM) are of increasing concern among People Living with HIV/AIDS (PLHIV) because they complicate patient management, often leading to poorer health outcomes and increased healthcare costs while most national health systems are not equipped to meet the demands of the primary healthcare and these comorbidities. However, there is paucity of literature on the prevalence of diabetes mellitus in (PLHIV) in Kenya. Therefore, the aim of this study was to determine the prevalence of diabetes mellitus and prediabetes among PLHIV at Marindi Sub County Hospital, Homa Bay County, Kenya.

Methodology: A cross-sectional study was conducted between the months of July 2021 to October 2021. We used World Health Organization stepwise approach to collect sociodemographic and clinical data from 1,595 adult patients from ages 18 to 69 years. Simple random sampling method was used to select the study participants. We measured blood pressure, fasting/random blood sugar as well as anthropometric indicators. DM was defined as fasting blood glucose >7mmol/l, random blood glucose >11mmol/l or PLHIV who were on medication for DM while prediabetes was defined as fasting blood glucose of 5.8-7mmol/l or random blood glucose of 7.8-11mmol/l.

Results: From the 1607 eligible PLHIV, 1595 had complete data and were included in the final data analysis, which gave a response rate of 99%. Out of the 1595, 1051 were female (65.3%) and 544 were male (34.7%). PLHIV who had never had their blood sugar measured by a health worker were 90.78%. The mean age for those with diabetes was 52.9, while mean number of years on ART was 9.9. Prevalence of raised blood glucose was 5.7% while 11.3% had impaired blood glucose (prediabetes). Women with raised blood sugar were more obese at 68.4% than men at 32.0% respectively. Fifty percent of patients with raised blood sugar also had raised blood pressure.

Conclusion: A majority of PLHIV had never been screened for DM. Diabetes was associated with advanced age, increased number of years on ART, raised blood pressure, and obesity. There was lack of systematic screening for DM among PLHIV. This calls for introduction of NCD screening at the time of enrolment into HIV care and regular screening of PLHIV who are already on HIV care to be able to detect DM early enough to make timely interventions and avoid complications.

Audience Take Away:

- Missed opportunities for NCD screening/care in PLHIV
- The burden of NCDs among PLHIV
- Suggested interventions for NCD management among PLHIV
- Screening should be included/ strengthened in PLHIV as a routine service in the package of HIV care.
- Screening this population helps in identifying DM cases early enough for proper management and helps in avoiding complications which lead to poorer health outcomes and increased healthcare costs with the already struggling healthcare system. Screening also creates more awareness on DM which is a good prevention strategy.
- For programmes that are involved in prevention and control strategies for diabetes, strategies with focus on more vulnerable groups like those with advanced age, many years on ART, etc should be developed/re-enforced.
- This study adds to the limited literature on prevalence of DM in PLHIV in resource-limited setting. Other faculty can use this research as the basis for further research into looking at the prevalence of DM among PLHIV vs HIV negative people and looking at which group develops more DM complications and/or have glycemic control and further developing strategies for management of DM

Biography

Susan Onyango studied Masters of Public Health at the University of Nottingham, United Kingdom, graduating with an MPH degree in 2012. Her first degree was in Nutrition from Maseno University in Kenya. She's currently a Doctoral Candidate in International Public Health at Pôle Universitaire Euclide, The Gambia. The focus of her research is Non-Communicable Diseases and associated risk factors among People Living with HIV/AIDS. She is a Registered Dietitian/ Nutritionist (RDN) and works with the Department of Health, Homa Bay County, Kenya. She has extensive experience in nutrition and public health programming with over 15 years' experience in both public and private practice.

Akshay Patil
Tata Memorial Center, India

A study on the deviation of effect sizes assumed while designing phase III randomised controlled trials

Introduction: Effect size is, an important consideration in the sample size estimation while designing randomized controlled trials using a frequentist approach. This study aims to systematically review the RCTs published during 2018-2020 in leading oncology and medical journals to quantify the differences in the target and observed effect size.

Methods: The journals considered for review were Journal of Clinical Oncology, Lancet Oncology, British Journal of Cancer, Annals of Oncology, and Journal of the National Cancer Institute. Trials were identified from the journal sites using keywords Phase III, Randomized Controlled Trials, Survival studies. A total of 85 RCTs published during the year 2018-2020 were assessed for eligibility. Trials were eligible for the review if they are Phase III superiority trials with time to event primary endpoint. Exclusion criteria were based on trials not providing enough detail about sample size calculation and published in a non-English language. The difference in the target and observed effect size was assessed using a standardized effect measure.

Results: A total of 85 RCTs were included in the study. The most commonly reported source of effect size was literature-based and previous studies. 37.2% of trials in which the basis is not reported. The distribution of trials by cancer site was 80% of cancer with solid tumors. Also 78.80% of patients with chemotherapy as a treatment modality and 10.60% with radiotherapy. It was observed that 53% of the studies were non-significant. In which 61.2% of the significant and insignificant studies were don't come under the target sample size. The Assumed HR for 20 significant studies were found which follows the 95% CI and 20 significant studies were do not follows the given 95% CI. In the case of non-significant study, the majority of the study (32 studied) were do not follow the given 95% CI only 13 non-significant studies followed the 95% CI.

Conclusion: The literature review concluded that from the previous studies target difference elicitation is advised, with multiple methods including, review of evidence and opinion-seeking as the better method for effect size quantification.

Biography

Akshay Patil (Working as an Oncology Biostatistician), currently working in Tata Memorial Centre, Mumbai, India, working on multiple indications in oncology therapeutic. I feel well equipped to fill since, I was a full-time biostatistician for Tata Memorial Centre A focused, determined and capable biostatistician who has a track record of providing world-class biostatistical services in cancer research areas. Worked in a variety of different research environments

Anna Gine March
Fundacion Anesvad, Bilbao, Spain

Key elements for enhancing the impact of NTD research: The BLMs4BU research project

There is an imbalance in the public health research agenda, which disproportionately focuses on the most prevalent diseases in the Global North, leaving other global health research priorities in the background. Neglected tropical diseases (NTDs) affect more than one billion people worldwide and particularly affect people living in on tropical and subtropical areas, particularly the most vulnerable, marginalized and impoverished communities. NTDs have long-term consequences such as physical impairment and permanent disability, stigmatization, social exclusion and discrimination, which perpetuate cycles of poverty. The 2021–2030 WHO road map for NTDs points out that to reduce this devastating human, social and economic burden, a comprehensive research agenda is required, from fundamental and clinical research to implementation research, linked to programmatic action. The BLMs4BU is a clinical trial that evaluates the efficacy of a triple oral antibiotherapy to potentially improve healing and shorten Buruli ulcer (BU) treatment from 8 to 4 weeks. This research takes place in Benin, Côte d'Ivoire, Ghana and Togo, and it is led by an international Consortium in collaboration with the National Health Ministry programmes. The BLMs4BU research explicitly incorporates elements to strengthen the impact of research on its process, beyond the results it may yield. Thus, community participation, awareness-raising campaigns and sustainable technical and human capacity building activities are a backbone of this research project. In addition, in order to bridge the gap between the knowledge and implementation, elements that facilitate the transferability of knowledge have been considered from its design, including an analysis of barriers to access to BU treatment and an advocacy strategy. These key elements enhancing impact included in the BLMs4BU research project constitute good practices and could be exportable to other research projects in the field of NTDs.

Audience Take Away:

- To situate NTD research in the context of global health research
- To gain understanding of the direct and indirect impact of research
- To identify specific measures to strengthen the impact of NTD research
- To reflect on the possibility to integrate impact-enhancing elements to other research projects

Biography

Anna is a doctor in public health and in social and cultural anthropology. His professional experience is mainly in the field of medical-humanitarian action, global health research projects and health policy development. In recent years, His interest has focused on promoting policies to improve health, wellbeing and equity. I currently work at Anesvad within the advocacy division, where I am in charge of research activities.

Sarada Prasad Daku
Hamad Medical Corporation, Qatar

Importance of computer vision in disease diagnosis and planning

In this presentation, the role of computer vision in healthcare sector will be presented. Computer Vision (CV) simply means: what a computer perceives looking at the image. Visualization is crucial in disease diagnosis; a poor diagnosis may be resulted due to poor visualization followed by poor interpretation. Although a digital device, computer, is used to visualize the medical images (such as CT, US, MRI, PET, SPECT, etc.), robust computer vision algorithms are still needed because of several challenges such as noise, unavailability of high resolution medical images, inadequate data for research to name a few. Importantly, despite having some state-of-the-art algorithms their real-time implementation lacks. Thus, computer vision is still considered as a hot area of research. A few future research perspectives will also be discussed. Finally, some computer vision research projects will be discussed.

Audience Take Away:

- What is computer vision?
- Why medical data visualization important?
- What can be done to improve the existing solutions or propose new solutions?

Biography

Sarada Prasad Dakua is working as a Senior Research Scientist in the Department of Surgery, Hamad Medical Corporation (HMC). Prior to joining HMC in 2017, he has spent over six years in Qatar Robotic Surgery Centre, Qatar Science and Technology Park (Qatar Foundation) as a Research and Development Executive. He has 15+ years of research experience in computer vision and image processing. He holds a Ph.D. degree from Indian Institute of Technology Guwahati in medical image processing and analysis. He also holds an MBA degree from University of Leicester (United Kingdom) and is a certified Project Management Professional (PMP).

Pingle Shubhangi K
Regional Occupational Health center, India

Early diagnosis of noise induced hearing loss in mining population

Noise Induced Hearing Loss (NIHL) is one of the most leading occupational disease which contributes to social isolation and leads to degraded quality of life. Worldwide 16% of the disabling Hearing loss (HL) in adult is due to excessive exposure to noise in the workplace. Noise exposure is considered as one of the most persistent health hazards in mining occupation. Workers who are exposed to high level of noise, more than ≥85dB (A) are prone to onset of NIHL. Noise damages key molecules such as proteins present in the micro-machinery of the ear which are required for the mechanoelectric transduction of sound waves. Exposure to high level of noise causes hearing impairment due to both mechanical and metabolicexhaustion in cochlea. NIHL can be detected by various methods of which audiometry is considered as gold standard technique but the limitation of this technique is that it can detect the HL when someone has already developed NIHL. It can't be used for onset and early diagnosis of NIHL. Hence there is a requirement of such methods which could detect the NIHL at early stages of its onset. Biomarker study using proteomics could be helpful for this analysis. Cochlea is the major organ responsible for resilience of sound. There are key cochlear proteins present in TM, IHCs, OHCs and Stereocilia which gets damage by impulse noise. Thus, the proteins that are up and down regulated during noise exposure should be analysed to elucidate the pathogenesis of NIHL. The potential biomarkers along with clinical assessments correlation may be utilized for achieving effective diagnosis of disease. Comprehensive understanding of inner ear proteome will accelerate the biomarker study required for diagnosis of NIHL and its early detection and prevention of its onset to exposed workers.

Biography

Shubhangi K Pingle currently works at the Regional Occupational Health Center, ICMR, Banglore. Shubhangi does research in Clinical Chemistry, Diabetology and Toxicology. Their current project is 'Neopterin: Biomarker of Cell Mediated Immunity and potent usage as biomarker in silicosis and other Occupational diseases'.

Hailu Bayuh Asmamaw
Wollo University, Ethopia

Mapping of mothers' suffering and child mortality in Sub-Saharan Africa

Background: Child death and mothers who suffer from child death are a public health concern in Sub-Saharan Africa. The location, associated factors, and potential causes of child death and mothers who suffer child death were not identified. To monitor and prioritize effective interventions, it is important to identify hotspots, associated factors, and potential causes of cases.

Methods: Data from nationally representative demographic and health survey and Multiple Indicator Cluster administrated in 42 Sub-Sahara Africa countries, which comprised a total of 398,574 mothers with 1,521,312 children. Spatial heterogeneity conducted hotspot regions identified. A mixed-effect regression model was run, and the adjusted odds/incidence-rate ratio with corresponding 95%CI was estimated.

Results: The prevalence of mothers who suffer child death 27% and 45-49 year of age mother 48%. In Niger, 47.1% of mothers were suffering child death. Being haven't HIV knowledge, Stunted, wasted, uneducated, not household head, poor, from rural, and from subtropical significantly increased the odds of the case (P<0.05). The spatial analyses can support the design and prioritization of interventions. Child mortality and women who suffer child mortality have a strong inverse relationship with GDP per capita, mothers aged 45—49 were more strongly inversly correlated.

Conclusion: Multisectral interventions for mothers who suffer child death are urgently needed, improve maternal health and it will reduce the future risk of cases.

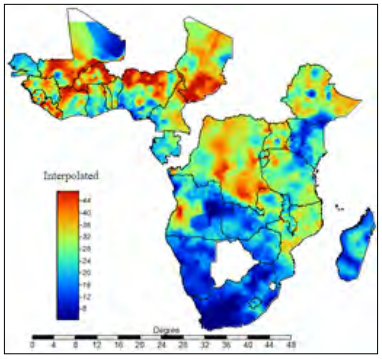

Figure1. Interpolation of mothers who suffer at least one child death: the interpolated continuous images provided by the interpolation ordinary kriging. The colour through bold blue to bold red indicates an increase in the prevalence of mothers who suffer from child death. Tis analysis was carried out at SAGA GIS.

Audience Take Away:

- The burden of child death and mothers who suffer in child death in the specific area and the characteristics/group of such peoples can be seen.
- In addition to simple prevalence different models were implemented in this analysis (two factors and three in spatial), the audience can see a single public health problem can be implemented in different model types.
- In this analysis about five different analysis tools were used. The audience can be see used such types of different tools for the analysis of health data. For example, SAGA GIS for interpolation is not familiar in the health researcher, maybe in health research this attractive tool is the first time to implement because I couldn't get from any researches using these tools.

- Almost all researchers who work on SSA or low and middle-income countries used the systematic review or based on reports of others. But in this work is from DHS directly the characteristics of individuals were used.
- These findings for the decision-maker, planer, and any concerned body can be shown full information. First identify the burden of the problem in the study area, next the high-risk group of peoples' location and finally the characteristics or group of people from which type of household and community for periodization purpose and to decide the type of intervention.

Biography

Bayuh Asmamaw Hailu is an Epidemiologist and Biostatistician at Woll University. He has expertise in evaluation and passion in improving the health and wellbeing. His open and contextual evaluation of geographical and non-geographical models based on responsive constructivists creates new pathways for improving health care. He has ample knowledge of different open sources GIS and other statistical soft wear. He used to link his soft wear ability with health and statistics background and experiences, and he can easily show health problems for planners and decision makers as well as any concerned body.

Tirthankar Basu
University of Gour Banga, India

How effective management of green space is beneficial in mitigating the heat stress related risks among the urban residents: A study on the raiganj urban agglomeration in India

The issue of urban heat islands (UHI) to the sustainability of urban areas has remained a matter of serious concern. A few recent studies revealed that the intensity of UHI is also growing rapidly in medium-class cities due to the rapid degradation of natural vegetation covers. It has caused a significant increase in heat-related illnesses. The study unit selected for this study is Raiganj City in Eastern India. A questionnaire survey with a sample size of 500 households revealed that illnesses such as headaches, dizziness, heat rash, and heat cramp on average increased by more than 10 percent among the residents during the last decade. A few incidents of heatstroke to the family member were also reported by some respondents. Therefore, an assessment concerning a medium-class city is of immense necessity to explore the association between green space and urban heat island (UHI) effect as a means of possible mitigation measure. In this study, the patch level association between green space and land surface temperature (LST) is explored on a spatial-temporal basis to reflect how green space concentration can influence the LST intensity. A total of 12 landscape metrics is incorporated for the evaluation of green space fragmentation and isolation. Further, an additional 6 metrics are included to show the LST patch compactness. The complex relationship between green space patches and LST patches is analyzed by employing multi-scale geographically weighted regression. The output suggests a strong positive relationship between green space fragmentation and isolation to the UHI effect. It showed that a high proportion of green spaces with low fragmentation and isolation particularly in 2000 was the source of sink areas in Raiganj. However, with the rapid removal of green spaces, fragmentation, and isolation in the green spaces increased significantly in the subsequent years. It enhanced the LST intensity and strengthens the UHI effect over the city. This study suggests the requirement of a proper action plan including a future land use land cover planning map for the preservation and enhancement of the compact green spaces. It will help to minimize the effect of heat-related risk among the citizens.

Audience Take Away:

- Lots of studies are available that showed the growing heat intensity and associated risks within the urban centres in almost every country.
- This study first presented the perception of the people to establish the growth heat stress related incidents in the study area.
- Following this, it showed how the heat intensity strengthens within the study area.
- Finally, this study tried to link the urban vegetation patches with the heat intensity to develop suitable mitigation policies.
- The study proposed the possible ways to reduce the heat intensity and heat-related risk factors within the urban centres.

Biography

First author has completed his master degree with 1st class 1st and M.Phil. degree from the same university. He has specialization in Geoinformatics. He published several articles in some of the world's leading journals like sustainable cities and society, cities, public health, socioeconomic planning science, ecological indicators etc.

Abu Ali Khaled
University College of Science and Technology, Palestine

Impact of COVID-19 on health care delivery in the Palestinian southern governorates

Background: The Palestinian health system in Gaza Strip has become undermined due to ongoing blockade, conflicts and COVID-19 pandemic, these situations lead to shortages in health care delivery.

Aim: The study aimed to assess the impact of COVID-19 crisis on delivery of essential health services. Methods in August 2021, a double paradigm approach were used to collect a convenient sample of routine data from 83 health facilities and 40 In-Depth Interviews were conducted with key informants and beneficiaries.

Results: All of the hospitals and UNRWA (Primary Health Care) (PHC) centers were fully functioning while 87.2% of governmental PHC centers, personal protective equipment were available and sufficient, electricity was available at working times, hospital`s equipment were not damaged at UNRWA centers while 77% and 60% were partially damaged in the hospitals and governmental centers, 69% of the hospitals complained from staff shortages, 58% in the governmental centers while UNRWA added surge staff, COVID-19 care provided to 25.7% of cases among 56,069 screened case at all health facilities and drugs sufficient rate was 75.6%, 67.75%, 100% at hospitals, governmental centers and UNRWA respectively. 30 % of key informants reported negative impact about health system while 50% among beneficiaries, 75% described the response was proactive and rapid, cancelling of elective surgeries, cessation of antenatal services, closure of out-patient departments postponing of immunization and closure of departments reported as the most prominent bad effects.

Conclusion: The researcher concluded that hospitals and governmental sector affected more than UNRWA, shortage of essential services and drugs is reported; the health system recommended to develop policies to optimize pandemic preparedness.

Audience Take Away:

- To identify how the health care system responded to COVID-19 crisis to deliver the essential health services in a country with an undermined health situation.
- To identify the difference of the services provided by the governmental sector and the international funded sector.
- To determine lessons learned and recommendations for early recovery, health systems strengthening, and improving resilience before, during and after crises occurrence.

Biography

Dr. Khaled Abu Ali, studied nursing at Palestine college of nursing in 2004. He has doctor of public health from Alexandria University, Egypt. He is working as Assistant Professor in the University College of Science and Technology, he had worked in the ministry of health for 15 years as Epidemiologist and consultant to the WHO Health cluster in 2018-2019, he reviewed as journal`s reviewer and academic editor more than 120 manuscript and published more than 12 article; he is interested in public health, epidemiology, nursing and health administration researches.

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Geospatial clustering and environmental predictors of dengue: A retrospective study in Delhi, India 2015–2018

Background: Dengue caused by four different types of viruses is a major public health problem worldwide. With the rise in global temperatures viz. projected to rise by ≥2 °C by the end of the century, the incidence of dengue is also expected to increase. The epidemiological study of dengue was conducted in Delhi to understand the geographical distribution and identification of the high-risk (hotspots) areas for dengue, for the period 2015-18. An attempt was also made to determine the environmental correlates for the prediction of dengue.

Methodology: A retrospective spatial-temporal (ecological) study design was used using the four years (2015-19) dengue data of Delhi. The spatiotemporal analysis was performed using inverse distance weighting and Getis-Ord Gi* statistic to know the geographical distribution and identify the hotspot areas. A total of 4179 confirmed dengue cases extracted from the medical records were included in the study. The environmental data of Delhi, collected from the Indian Meteorological Department of Pune, was analyzed to know the seasonal variation and environmental correlates of dengue. The Generalized Linear Model (GLM) was used to know the combined effect of meteorological factors such as temperature (average, maximum, minimum, and difference), humidity (relative humidity), and rainfall (total and cumulative) for the prediction of dengue.

Results: The annual trend of dengue cases declined, but the seasonal pattern of disease occurrence remained alike every year (2015-18). Seasonal occurrence of dengue cases (4179) shows, the cases started emerging mainly in June-July during the monsoon season, increased gradually to peak in September-October during the post-monsoon period, and thereafter, declined towards the lowest during early winter (November-December). The proportions of dengue cases were recorded high among the males 57.3% compared with females 42.6%, and differences were also recorded in all the age groups with more cases in age groups <15 and 16-30yrs. Mapping of the cases reflects the spatial heterogeneity in the geographical distribution. The geo clustering of cases indicates the presence of a significantly high number of cases in the West, Southwest, South and Southeast districts of Delhi. High-risk areas or hotspots were also identified in this region. The Spearman correlation coefficient (r) of dengue was significantly high with the maximum temperature at lagged 2 and 3 months (0.695 & 0.694 at $p<0.01$), the minimum temperature at lagged 2 months (0.887, $p <0.001$). A significant negative correlation was also recorded with the difference in monthly average minimum and maximum temperature at lag 1 and 2 (-0.675, $p< 0.01$ and -0.663, $p<0.01$). Other environmental factors were also significantly correlated. The negative binomial regression of GLM was a best-fit model for the prediction of dengue. The estimated β coefficients of predictors i.e. temperature difference at lag 1, cumulative rainfall (lag0), relative humidity (lag 0) and maximum temperature at lag 2 were significant at $p<0.01$, and maximum temperature at lag 2 was having the highest effect (IRR 1.198).

Conclusion: Dengue occurrence shows a significant association with age, sex and seasons. The spatial analysis identified the high-risk areas, which can aid health administrators to take necessary action for prevention and better disease management. The findings of the current study also highlight the considerable importance of the climate in assessments of dengue in Delhi. The increasing temperature of two previous months and cumulative rainfall are the best predictors of dengue incidence in the August to November months. It can be inferred that the vector control and dengue management program should be implemented at least 2 months ahead of the expected month of the dengue outbreak. The occurrence of dengue during September and October month was recorded high, the healthcare providers should be prepared well in advance (July to August) for effective control of disease transmission.

Audience Take Away:

- Need to study the geographical distribution of diseases especially dengue, and also the identification of hotspots.
- The complex relationship of environmental factors with dengue incidence.
- Application of GLM models to identify the significant environmental predictors of diseases.
- Public Health Policy related outcomes of the study - Planning for timely intervention related to vector control and disease management for reversal of dengue epidemic.

Biography

Dr. Himanshu K. Chaturvedi studied MSc in Statistics and was awarded a PhD in 2000 at TM Bhagalpur University of Bihar, India. He is a distinguished Senior Scientist at the National Institute of Medical Statistics of ICMR and PhD. Supervisor in Medical Statistics of GGSIP University, New Delhi. The major area of his research is the Epidemiological study of Public Health problems such as risk factors of diseases, estimation of disease burden, association and predictive modelling of diseases. He has published more than 65 research articles in SCI journals, supervised three PhD theses, published Book Chapters and reviewer many SCI Journals.

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Prevalence of depression and associated factors among people living with HIV attending antiretroviral therapy clinic in public hospitals at Kembata tembaro zone, SNNPR, Ethiopia

Background: Despite the commonness and its relationship with poor outcomes among Human Immunodeficiency Virus-infected adults, depression remains widely unrecognized, untreated, or undertreated in antiretroviral therapy clinic care. This study aimed to assess the prevalence and associated factors of depression among adult people living with HIV attending antiretroviral therapy clinics in public hospitals at Kembata Tembaro Zone, South Ethiopia, 2020.

Method: A facility-based cross-sectional study was conducted on a sample of 393 HIV-infected adults in public Hospitals of Kembata-Tembaro Zone from March-April 2020. A systematic random sampling technique was employed to select the study participants. Quantitative data were collected using a pretested and structured questionnaire. Multivariable logistic regression was used to assess factors associated with depression. P-value <0.05 was considered statistically significant.

Results: Among the study participants, 217(56.2%) were females, 230(59.6%) were married, 190(49.2%) were between the ages of 29-39 years, and 198(51.3%) attended primary education. =The prevalence of depression was 44.3% (95%CI: 39.4%-49.2%). Being female (AOR=2.03,95%CI:1.21,3.40), living alone (AOR=3.09,95%CI:1.68,5.68), Having HIV related stigma (AOR=2.85, 95%CI: 1.73,4.71), poor social support (AOR=2.55, 95% CI:1.48,4.78), CD4 count less than 350 cell/ul (AOR=2.66, 95% CI:1.48,4.58) and Poor medication adherence (AOR=2.19,95% CI:1.32,3.65) were factors significantly associated with depression.

Conclusion: The prevalence of depression was high. Being female, living alone, having HIV-related stigma, Poor social support, CD4 count less than 350cell/ul, and poor medication adherence was associated with depression. Depression should be included as part of the tedious consultation of HIV patients to warrant early detection and treatment.

Audience Take Away:

- Depression is the most common in people living with Human Immunodeficiency Virus patients. However, depression among PLWH still did not receive adequate attention in HIV care service.
- The co-existence of depression and HIV/AIDS can result to poor health outcomes due to obstacles to treatment and deterioration of medical outcomes.
- We documented that prevalence of depression among people living with Human Immunodeficiency Virus is 44.3%. This prevalence is high but fails within the documented prevalence in Ethiopia of 41.2% to 45.1%, depending on the studied population.
- This study adds that, Being female, living alone, having HIV related stigma, Poor social support, CD4 count less than 350 cell/ul and poor medication adherence as factors associated with depression.

Biography

Addisu Girma Komba earned his bachelors' degree in Public health from Mizan-Tepi University, and masters of public health in Epidemiology from Hawassa University, Ethiopia. Since joining Dr.Bogalech Gebre memorial General Hospital, his work focused on provision of comprehensive promotion, prevention, curative and rehabilitative health service. He has also worked as a health service quality improvement project coordinator, as Public health emergence management team leader and as Planning, monitoring, evaluation of health data director in Hospital. His research area was mainly focused on mental disorders, Maternal neonatal and child health, and communicable and non-communicable diseases.

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Prevalence of hypertension and its associated risk factors in Jagdalpur, Bastar District, Chhattisgarh

Introduction: Hypertension is an important public health challenge in both developing and developed countries. Studies have shown that tribal populations in India are also experiencing this transition. The prevalence of hypertension in adults increased over the past 25 years from 12-17%.The prevalence of hypertension is increasing due to lack of awareness among people of Jagdalpur.Significant number of individuals with hypertension was unaware of their condition. The main objective of this study was to assess the prevalence of hypertension and its associated risk factors among people of Jagdalpur.Tobacco chewing and tobacco smoking, physical inactivity, body mass index were common risk factors. Blood pressure (BP) is leading modifiable risk factor for morbidity and mortality worldwide.

Method: It's an observational study design, done at shaheed Mahindra karma memorial govt. hospital, dimrapal from Des 2020 to Nov 2021.Study population was 1550. All the data were extracted by using a standardized protocol and data collection form. Case sheets and records were used and also undertook a detailed literature search with full assessment of relevant articles by searching the following databases: Google Scholar, Medline and Embase.Hypertension is defined as systolic blood pressure (BP) of atleast 140mm Hg and diastolic blood pressure of at least 90 mm Hg was considered.

Result: The reported prevalence of hypertension in tribal populations varied from 10% to 55.5% in different regions and states of India. The prevalence of hypertension in males was higher than females. Increasing age, tobacco chewing and tobacco smoking, physical inactivity, body mass index, diabetes and extra salt intake were common risk factors. Awareness of hypertension was reported 46%.

Conclusion: The prevalence of hypertension was high in Jagdalpur Bastar district Chhattisgarh. Measures are required at the population level to prevent the development of hypertension and to improve awareness and treatment in the community. There is need for comprehensive health promotion programs to encourage life style modification and preventive measures to control the problem.

Participants List

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