Introduction of cohort study in the Amami islands region of Kagoshima, Japan: J-MICC study

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Since 2005, the J-MICC Study (Japan Multi-Institutional Collaborative Cohort Study) has been conducted to establish evidence for the prevention of lifestyle-related diseases, including cancer and over 7,000 participants have joined from the Kagoshima site. This cohort study collects various information, including lifestyle habits such as diet, exercise, and sleep etc, health checkup data, and genetic information, and investigates the relationship between these factors and disease incidence or mortality. Approximately 65% of the participants from the Kagoshima site are residents of the Amami islands region, and we have conducted unique research on the lifestyle habits specific to the Amami islands region such as brown sugar or local vegetable consumption etc, including the measurement of the Cardio Ankle Vascular Index (CAVI), a non-invasive indicator of arteriosclerosis. While epidemiological research in island regions presents some challenges, it also offers valuable experiences gained through interaction with local residents. This presentation will introduce part of our research results, interactions with local residents in the Amami islands, and the research environment blessed with the unique natural beauty of island regions, highlighting the distinctive charm of island regions.

Biography

Dr. Shiroh Tanoue is a lecturer in Epidemiology and Preventive Medicine at Kagoshima University, Japan. He began his career as a clinician, working as a gastroenterologist and contributing to community healthcare in Kagoshima,Japan. His current research centers on cohort epidemiology, with a particular focus on rural and remote island general populations. He is committed to advancing public health through field-based, community-oriented research.

Screening for valvular heart disease and heart failure in remote islands: The Nagasaki Islands Study

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In 2014, we launched a population-based prospective open-cohort study, the Nagasaki Islands Study (NaIS), conducted in Goto City, a remote island region of Nagasaki Prefecture, Japan, primarily involving middle-aged and older residents. The study aims to elucidate the health conditions of individuals living with diseases or disabilities, identify environmental and genetic determinants, and contribute to improved healthcare. We conduct our own health checkups in conjunction with the municipality's annual standardized checkups, recruit participants, and follow them for vital status (death), migration, and incidence of diseases such as myocardial infarction, stroke, and fracture. As part of NaIS, we initiated a three-year prospective study to evaluate a palm-sized, AI-assisted visualized phonocardiogram device (AMI-SSS01) developed for the early detection of valvular heart disease and heart failure. Participants requiring further assessment are referred for echocardiography. Using our heart disease screening initiative as an example, I will present the details of our efforts and discuss future perspectives.

Biography

Jun Miyata is an Assistant Professor in the Department of Island and Community Medicine, Nagasaki University Graduate School of Biomedical Sciences. His work focuses on epidemiology, health services research, ICT and telemedicine, and healthcare provider education. He is a board-certified family physician by the Japan Primary Care Association and has provided clinical care on remote islands.

Epidemiology and Health System Strengthening in Remote and Rural Indonesia: Challenges and Strategic Solutions

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The epidemiological profile of Indonesia's remote and rural regions reflects the complexity of an archipelagic nation comprising more than 17,000 islands. Geographic isolation, limited healthcare infrastructure, and disparities in access to medical services create distinct disease patterns and inequities in health outcomes. Infectious diseases such as tuberculosis, malaria, and dengue fever remain major public health concerns, while the rising prevalence of non-communicable diseases—including hypertension and diabetes—adds to the double burden of disease. Maternal and child health problems, malnutrition, and emerging zoonotic infections further illustrate this complexity.

Recent epidemiological evidence highlights the importance of adaptive, community-based, and integrated health strategies to address these challenges. National programs such as *Nusantara Sehat* (Healthy Archipelago Program), mobile clinics, floating hospitals, and the *Bidan Desa* (Village Midwife Program) have expanded essential healthcare coverage in underserved areas. In addition, health internship programs, sister-hospital collaborations, and community empowerment initiatives have strengthened the health workforce, referral systems, and local participation in health promotion and disease prevention.

Despite persistent obstacles in logistics, human resources, and sustainability, Indonesia's experience provides valuable insights into achieving health equity for geographically dispersed populations. This presentation explores epidemiological trends, implementation barriers, and innovative strategies that support resilient and inclusive health systems in remote Indonesia.

Biography

Dr. Saekhol Bakri, MPH, PhD is a lecturer and public health researcher at the Department of Public Health, Faculty of Medicine, Diponegoro University, Indonesia. He obtained his PhD in Epidemiology and Preventive Medicine from Kagoshima University, Japan. His research focuses on toxicoepidemiology—particularly mercury exposure—and the development of creative health programs in elementary school.

Towards a Future of Expanding Possibilities for Remote Islands

Makoto Kaneko (1)

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My career as a primary care physician began in one of the most remote settings in Japan: a solo practice clinic on an isolated island in Okinawa Prefecture. For three years, I lived with my family in the same community as my patients and served as the island's only physician. This experience was transformative, shaping my understanding of healthcare not as a service delivered externally but as a core part of community infrastructure, comparable to other occupations that sustain daily life. Immersion in the community revealed that the physician's role extended far beyond providing medical treatment. During this period, I initiated several community-based innovations. We secured public funding for pediatric vaccinations that had previously required out-of-pocket payment. We also expanded the clinic's bookshelf into a small community library, lending books to residents to promote health literacy and strengthen the clinic's role as a community hub. Recognising the additional burdens faced by pregnant women, we established subsidies for off-island travel for prenatal care and delivery. These activities underscored the principle that sustainable healthcare must be embedded within the broader social and cultural fabric of the community. My experience on the island also highlighted the importance of connecting isolated practitioners. In 2014, I developed a Practice-Based Research Network (PBRN) linking remote island clinics across Okinawa. Over the past decade, this network has fostered collaboration among island physicians and produced ten peer-reviewed English-language publications. The PBRN has served as a unique platform for translating local experiences into evidence with broader relevance, contributing to both Japanese and global discussions on primary care in underserved regions. At this international conference, I will share these experiences as case examples in designing sustainable primary care for underserved settings.

Biography

Makoto Kaneko is a family physician and clinician researcher dedicated to improving rural health in Japan. After practicing on a small remote island in Okinawa early in his career, he established a Practice-Based Research Network that has fostered rural research collaboration for over a decade. He developed "Rurality Index for Japan", now widely used in research and health policy.