

## **MODELS OF INTEGRATED CARE FOR TACKLING Non-Communicable Diseases (NCD's)**

**Introduced as a key interactive components of the  
World Bank Health Systems Flagship Program - Deep Dive Course  
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**Note: These are recommended for use by country teams working on developing or updating models of integrated care for tackling (NCDs)**

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### **KENYA**



The Kenya Primary Integrated Care Pilot Project aims to scale up a chronic care model for NCDs focusing on 4 diseases (i.e., diabetes, hypertension, breast, and cervical cancer). The Kenya pilot project is unique to the extent it leverages and builds on a long-standing model of care for HIV/AIDS introduced in the early 2000s. It is an excellent example of the importance of partnerships, with various institutions contributing to its success, including the Kenya Ministry of Health, Moi Teaching and Referral Hospital, academic institutions in North America, and most recently the World Bank and the Access Accelerated Initiative. The main goals of the pilot project were to: (i) improve access and coverage of key interventions at the primary healthcare

level; and (ii) generate evidence of the effectiveness of interventions and how much they cost. The Kenya model has several innovative features, including use of task shifting; revolving drug pharmacies; patient support groups to promote economic empowerment and enrollment in the national health insurance scheme. The model proved its resiliency during the ongoing COVID-19 pandemic with several innovations introduced successfully to mitigate the impact on patients.

### **MALAWI**



This session will highlight Malawi's experience with care for severe NCDs using the PEN-Plus model which complements WHO's Package for Essential NCDs (PEN). The PEN-Plus model focuses on hospital-level outpatient care for patients with severe and complex chronic NCDs (e.g., type 1 diabetes, sickle cell anemia, and rheumatic heart disease) which disproportionately affect the poor. The model: (i) relies on establishing and training integrated care teams, made up of mid-level providers such as nurses and clinical officers; (ii) decentralizes care from central hospitals to district and rural

hospitals to make it more accessible; (iii) supports maturation of PEN-Plus clinics into training

sites to establish a well-trained workforce; and (iv) involves provision of social support and economic development activities. Malawi launched the country's first PEN-Plus clinics in the rural district of Neno in early 2018, and since then has provided care for hundreds of patients, developed support systems across the continuum of care, and informed a national operational plan for PEN-Plus scale up across the country. It serves as a good example of a model of care focused on severe and complex NCDs.

## MALAYSIA



The Better Health Programme in Malaysia (BHP MYS) is an innovative project that aims to tackle the growing burden of NCDs and obesity among the urban poor in Kuala Lumpur. The programme has several unique features: (i) focuses on underlying risk factors with a pro-poor focus; (ii) uses a locally-informed, community-based approach empowering community health volunteers and beneficiaries to design and adopt evidence-based interventions; and (iii) leverages mobile phone applications (MyBHP app) and social media to improve health literacy and promote healthy foods; and (iv) promotes collaborative partnerships with food vendors and grocery stores to supply healthy foods.

## PEOPLE'S REPUBLIC OF CHINA



China launched its unprecedented national health system reform in 2009, which led to nearly universal health insurance coverage (95%) in the world's most populous country. The recent reform has been focusing on transforming the service delivery system, that is heavily hospital-centric and not value-based, to one which provides people-centered integrated care. With support from a World Bank a PforR US\$600million Project, reforms were implemented in pilot provinces and subsequently scaled up nation-wide. The major reforms include: (i) strengthening primary health care; (ii) establishing a vertical service provider alliance with shared accountabilities; (iii) promoting clinical integration through introduction of evidence-based disease management pathways; (iv) reforming provider payment mechanisms to incentivize integrated service delivery; (v) building integrated HMIS/telemedicine capacity; and (vi) enhancing quality control and patient safety measures. China's bold reforms demonstrate how transformation of the service delivery system can take place through people-center integrated care and how World Bank PforR operation has supported this.

## POLAND



Poland, an upper middle-income country with a strong national social health insurance scheme, has embarked on a bold reform of its hospital-centered health system to better respond to the rising burden of NCDs. The main goals of the reform are to: (i) increase access to services; (ii) strengthen care coordination for patients with chronic conditions at the primary health level and minimize fragmentation; (iii) improve quality of services; and (iv) enhance people's care experiences and patient satisfaction. Organized around the health needs of individuals and their families, this comprehensive approach is expected to help Poland address gaps in its health system and improve health outcomes. This session will provide an overview of the reform and share results and lessons from an innovative Primary Health Care Pilot that was rolled out to inform the process. The pilot program covered over 300,000 people and was implemented over a three-year period starting in mid-2018. The evaluation of the pilot model conducted by the World Bank generated important lessons which will be of broader interest to other countries, namely: (i) appointing care coordinators at each PHC facility; (ii) targeting health prevention initiatives to specific groups of patients; (iii) introducing disease management programs; (iv) introducing bundled payments; and (v) improving IT systems for enhanced data management. Most importantly, the evaluation recommended a 'modular' approach to scaling up these strategies, particularly given the variable capacities across regions. The session will discuss the main achievements, ongoing challenges, and future opportunities.

## SAMOA



Samoa, located in South Pacific, embarked on its health system reform to build an effective NCD care model in 2020 with support from a World Bank Health System Strengthening Program for Results Project. Samoa, like many countries in the same region, has some of the highest NCD prevalence and premature death rates in the world. Lifestyle-related risk factors drive most of NCD-related death and disability, underscoring the importance of changing behaviors. Samoa's journey to provide people-centered continuum of care is based on a customized and expanded WHO's Package for Essential NCDs (PEN) which has comprehensive and systematic interventions along the care cascade, including health promotion, community-based and facility-based screening, timely referral and diagnosis and case management by a multidisciplinary team based in Primary Health Care (PHC) facilities, following evidence based clinical protocols. As part of this effort, the government has undertaken a reform of the service delivery system to shift attention from a hospital-centric model to one which refocuses attention on a revitalized PHC system. The model has a robust component to address risk factors and to establish digital health platforms to support the provision of continuum of NCD care. It serves as a good example of a care model with systematic interventions along the cascade of NCD care and a strong focus on health promotion

to change behavior. It also provides an example on how to design a PforR operations to support a country's efforts in tackling rising NCDs.

## TAMIL NADU, INDIA



This session will share Tamil Nadu's 20-year journey with addressing NCDs which has benefited from sustained political commitment, ownership, and leadership. The Tamil Nadu state is an economic powerhouse with a highly urbanized population (72 million) and a heavy NCD burden (nearly 70% of all deaths). The state has a long-standing history of implementing interventions through evidence-based, adaptive learning mechanisms, empowering communities to deliver people-centered care. Its initial facility-based opportunistic screening for NCDs (hypertension, cervical cancer), while quite successful, did not yield anticipated results, leading to a set of reforms that expanded the package to also screen for diabetes, breast, and oral cancers. During the most recent rounds of reform the state has transitioned from facility-based opportunistic screening to a Population-Based Track and Treat model that involves screening followed by integrated care at primary health center level, and referrals for secondary/tertiary care. This led to a further set of reforms through the "Makkalai Thedi Maruthuvam" scheme that includes palliative care nurse and physiotherapist to facilitate expansion of the care package to include other diseases and delivery of hypertension and diabetes drugs at the doorstep. These efforts are complemented with reforms in health financing to expand financial protection; establishment of multi-disciplinary teams to bolster human resources; quality of care initiative; and a social and behavior change communication strategy to address risk factors, NCD prevention and health promotion.

## UKRAINE:



Ukraine started an in-depth transformation of its health care service delivery model and health financing system in 2017. The initial set of reforms covered enrolment of patients with family doctors based on patient choice; provision of a benefit package, focused on preventive and basic care at the primary care level, covered by the state; implementation of e-prescriptions and e-referrals, and reimbursement of key NCD medications (diabetes, hypertension, asthma, mental health) to lower financial barriers. From 2020, the full Program of Medical guarantees was defined for all Ukrainian citizens, including benefit packages for all types of care, and prioritizing better access to diagnostic and treatment services. Early results from these bold reforms are promising, with over 80% of citizens selecting their family doctor; over 2 million people receiving NCD medications at outpatient clinics; and improved patient pathways for acute cases (i.e., over 80% of stroke patients are delivered by emergency medical services directly to specialized stroke departments with hospital records indicating a 6% reduction in mortality for patients with strokes because of timely, evidence-based interventions). Participants in this session will be able to learn from Ukraine's experience using cascade analyses to understand service delivery breakpoints;

introducing continual reforms of the primary healthcare model; shifting towards output-based financing, and greater autonomy of providers, and introducing a purchaser-provider split.



## UNITED ARAB EMIRATES, ABU DHABI



H.E. Dr. Omniyat Mohammed Al Hajeri, the Executive Director of the Community Health Division at the Abu Dhabi Public Health Center, will discuss the successful implementation of the ‘Population at Risk Program’ (P@R) in the Emirate of Abu Dhabi, UAE. The Population at Risk Program is generating insights on how countries can ‘build back better’ following the ongoing pandemic. Introduced in 2020 as an integrated-care model with “at your doorstep care”, the Program aims to reduce the risk of COVID-19 infections for patients with chronic diseases and the elderly. The Program aims to ‘serve the right patients, in the right setting, at the right time’. Several of the innovations used are like those in other programs, including use of technologies to enhance access to care; a targeted strategy focusing on the most vulnerable groups; and an evidence-based approach to generate knowledge about what works. Service delivery innovations were accompanied by mutually reinforcing reforms related to financing, regulation, data management as well as stakeholder engagement.

## URUGUAY



This session will address the bold reforms adopted by Uruguay to address risk factors and improve both the delivery and financing of NCD services. Uruguay embarked on a broad reform of the health system in 2007 that included a major reorientation of the health care model towards prevention of NCDs which represented the largest share of the burden of disease given the rapidly aging population. Uruguay developed a strategic plan for health promotion and NCD prevention that included best buy population-based interventions (e.g., anti-smoking policy, regulatory measures for controlling trans-fat and salt content). This was accompanied by a strengthening of the health service delivery organization with a strong focus on primary health care; modernization of networks for early and secure diagnostic services, like the National Digital Mammogram Network; and development of sound information systems, including the EMR under the salud.uy initiative. This was done in the context of the development of a more harmonized system through the introduction of a National Health Insurance scheme (Seguro Nacional de Salud - NHI), thereby promoting more equitable access to services and improved quality of care while reducing the financial burden on households. The reform introduced unified rules for public and private health insurance providers under the National Integrated Health System (Sistema Nacional Integrado de Salud - NIHS), with a unique benefit plan and capitation payments adjusted by risk and performance linked to the NCDs strategy.