### Web Table: Selected National Noncommunicable Disease Action Plans, Implementation Challenges, and Implementation Research Questions

| Country (Year) | National NCD Strategic Objectives | Implementation Challenges Based on the National NCD Plan | Relevant Implementation Research Questions based on the National NCD Plan |
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| **Australia (2017)** | All Australians live healthier lives through effective prevention and management of chronic conditions. The National Strategic Framework for Chronic Conditions has 3 strategic priority areas: 1. Focus on prevention for a healthier Australia; 2. Provide efficient, effective and appropriate care to support people with chronic conditions to optimise quality of life; 3. Target priority populations | i. Need to bring together partners across government, non-governmental organizations, the private sector, care givers, and families to ensure coordination of action and that sufficient efforts are given to match the size of the problem  
ii. Individuals often experience care that is fragmented and uncoordinated  
iii. Access to services is a challenge (lack of mobility and transport, plus language, financial and remoteness) particularly in a population that is widely dispersed  
iv. Poverty and socio-economic disadvantage adversely impact the burden of NCDs  
v. Aboriginal and Torres Straight peoples experience a disproportionate disease burden  
vi. Life course transitions (e.g. pregnancy) represent both challenges and opportunities for health care interventions  
vii. Assessing the true economic burden of NCDs is challenging due to existing disease-specific data collection methods  
viii. The transfer of health information across health sectors is a challenge | i. What are the best strategies to create strong, cooperative and productive partnerships between governments (federal, state and local), non-government organisations, the private sector, industry, researchers and academics, communities, and individuals, carers and families? How do we minimize the large disconnect between the scope of the problem and the resources needed to address it – what are the barriers to acceptability, adoption, and relevance of NCD interventions for key decision makers?  
ii. How do we shift from disease focused, treatment models to develop, implement and evaluate a more sustainable, person-centred health system? Can we test innovative models to learn to do this better?  
iii. What are the best models to optimize primary care to overcome access barriers? How do we operationalize information and communications technology to empower individuals to manage their own health?  
iv. How can we identify and engage those who are socio-economically disadvantaged; individuals living in remote, rural and regional and those with mental illnesses in reducing NCD risks and impacts on their lives?  
v. What are the best approaches to tailor and target interventions to high risk populations including Aboriginal and Torres Strait Islanders, |
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| Brazil (2011) | The Strategic Action Plan to Tackle Noncommunicable Diseases in Brazil 2011-2022 aims at preparing Brazil to cope with and restrain, in the next 10 years, NCD, among which can be listed: stroke; heart attack; hypertension; cancer; diabetes; and chronic respiratory disease. The plan is based on the outlining of guidelines and measures to be taken concerning: a) surveillance, information, evaluation, and monitoring; b) health promotion; c) Comprehensive Care. | i. Insufficient government commitment and low prioritization for NCD prevention and control  
ii. Fragmentation between local, regional and national NCD programmes and policies  
iii. Lack of support for an information system to identify and track NCD cases  
iv. Variable quality of care for people with chronic diseases  
v. Large inequities regarding access to and quality of cervical cancer screening, diagnosis and therapy. | as well as other people from culturally and linguistically diverse backgrounds?  
vi. How do we take advantage of changes in life course transitions to provide services, e.g. pregnancy, retirement, transition to assisted living? How do we better align health and other support services to assist people with chronic conditions?  
vii. Can we better estimate the full and direct and indirect costs of NCDs despite fragmented data collection systems? Can we estimate the full economic benefits from NCD strategies given the broad range of interventions and fragmented data systems?  
viii. How do we design and test systems to harmonize and share data across health programmes to improve decision-making around NCDs and health issues more broadly? |
| Country        | National NCD Strategic Objectives                                                                 | Implementation Challenges Based on the National NCD Plan                                                                 | Relevant Implementation Research Questions based on the National NCD Plan                                                                 |
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| Indonesia     | The Indonesia National Strategic Action Plan for the Prevention and control of Noncommunicable Diseases 2016-2019 is geared towards reducing morbidity, mortality and disability, as well as lessening the economic burden brought about by NCD to achieve the goals of national health development and national development. The strategy is laid upon four main pillars: 1) advocacy and partnership, 2) health promotion and risk reduction, 3) health system strengthening and 4) surveillance, monitoring & evaluation, and research | i. Inadequate political support for NCD prevention and management programmes - lack of commitment by national, subnational governments, lack of cross program and cross-sector collaboration  
ii. Lack of healthcare capacity to respond to NCDs causing inadequate access for public to receive quality NCD services  
iii. Inadequate data for program management - weak surveillance system for NCDs and risk factors, with human resource shortages  
iv. Limited data and reporting management linked with the capacity of supporting manpower - health volunteers do not understand the significance of accurate data collection from outreach efforts  
v. Referral system is not organized effectively, will need to be improved along with refinements to National Health Insurance  
vi. Weak advocacy and ineffective coordination  
vii. Enforcement of Smoke Free Zone policy is difficult  
viii. Policies governing the display of health information and labels displaying salt, fat, sugar levels in packaged foods are not yet incorporated  
ix. Limited media and education outreach about prevention and control of NCD  
x. Cannot effectively implement online surveillance system to monitor NCD and risk factors due to lack of internet and electricity | i. What are the interests and power of key stakeholders in government with respect to NCD policy and programme implementation?  
To what degree are NCD programmes seen to be acceptable and relevant? What are their perceived barriers to adoption of NCD interventions?  
ii. What are the gaps in trained staff, materials, drugs, and information systems to delivery NCD programmes? How can they be closed?  
iii. What innovations or improvements in data systems can be tested to improve NCD surveillance?  
iv. How can staff and volunteers be better trained and incentivized to report and use data on NCDs?  
v. How can referral systems be improved? Can insurance reimbursement practices be changed to promote effective referral of NCD patients?  
vi. What approaches can be used to improve advocacy and coordination capabilities?  
vii. What are the key obstacles to enforcing public smoking restrictions? Can they be overcome through public education and media campaigns?  
viii. What is the nature of opposition to implementation of food labelling policies? What is the perception of their relevance and importance? Among those expected to
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| Kenya (2015) | The Kenya Health Policy aims at attaining the highest possible standard of health in a manner responsive to the health needs of the population. This policy will be achieved through six strategic objectives which include halting and reversing the rising burden of NCD’s, reducing the burden of violence and injuries, providing essential health care, minimizing exposure to health risk factors, eliminating communicable diseases and strengthening collaboration with health related sectors which have a bearing on NCD prevention and control. | i. Lack of prioritization of NCD prevention and control in government agenda setting, planning and budgeting at county level.  
ii. Lack of an NCD prevention and control infrastructure with county focal persons to coordinate NCD prevention and control planning, programming, monitoring and evaluation.  
iii. Limited financing for public health initiatives for awareness and promotion of healthy lifestyles in the prevention and control of priority NCDs  
iv. Limited NCD surveillance in the DHIS with resultant paucity of planning data.  
v. Inadequate levels of awareness of strategies of prevention and control of NCDs among health policy makers, planners and health care providers at both the national and county levels of government.  
vi. Limited availability and affordability of quality, safe and efficacious basic technologies and medicines for screening, diagnosis, treatment and monitoring of NCDs.  
vii. Inadequate capacity of the health workforce in terms of numbers, equipment and skills mix for the prevention and control of the non-communicable diseases.  
viii. Lack of an enabling environment with appropriate regulatory and fiscal measures, | i. What is the basis for prioritization of NCD prevention and control activities? What is known about burden of disease and risk factors for NCD compared to other conditions in Kenya? Coverage and gaps in NCD services? Costs and cost-effectiveness of NCD services?  
ii. What are the NCD coordination needs? What is current capability to plan, programme, monitor and evaluate?  
iii. What information do those allocating public resources need to make allocation decisions? What are the sources of funding for NCDs across sectors?  
v. How aware of policy-makers, planners, and providers about NCD prevention and control issues (e.g. burden, “best buys” in NCD prevention)? What are the barriers to acceptability and adoption of potential NCD interventions?  
vii. What are the barriers to availability of affordable medicines and technologies for NCDs, and the opportunities to address them?  
v. What is the level of knowledge and skills of health workforce in NCD prevention and control?  
ix. How can current resources be used to better reach out to people for education on NCD prevention and control? Are there alternative media that can be used?  
x. Are there technological solutions to low electricity and internet access? |
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| Norway (2013) | Norway’s overall goal is to reduce premature death from cardiovascular disease, diabetes, chronic lung disease and cancer by 25 per cent by 2025. The Plan highlights actions in areas of: Tobacco; Diet; Physical Activity; Alcohol; Diagnosis and Prevention in Healthcare; Cardiovascular Diseases; Chronic Lung Diseases; and Cancer | i. Health and care services must work in a more unified, coordinated and inter-disciplinary manner. Collaboration with users and dialogues with other players must be improved.  
ii. Disease specific treatment is usually prioritised over a more holistic approach  
iii. The health services place great emphasis on diagnosing and treating diseases and major complications, and not enough on promoting health and preventing health problems. As a consequence, treatment in the specialist health services occurs when chronic diseases are well advanced, instead of preventing and limiting them through primary prevention and early intervention.  
iv. There is a need for good ICT solutions with tools to support decision making that are based on national guidelines.  
v. Increased use of testing may be appropriate but may lead to unnecessary concerns about treatment? Where are the gaps in workforce skilled in NCD prevention and treatment?  
viii. What are the key legal, fiscal, and regulatory constraints and opportunities for improving healthy choices?  
ix. Who are the key partners needed for collaboration – their interests and power? What are the barriers to involving partners in NCD efforts?  
x. How can NCD programs be integrated into regular service delivery platforms?  
xi. What are the capacity needs for program managers to work across sectors? | i. Who are the key stakeholders in government needed to prioritize NCD prevention and control in some areas? What is their understanding of NCD importance and relevance? Of the opportunities for impact through NCD “best buys”?  
ii. How can a holistic approach be better integrated into regular service delivery platforms?  
iii. How can health services place a greater emphasis on promoting health and preventing health problems?  
iv. What indicators and information are necessary for ICT solutions to support decision making?  
v. What is the influence of increased screening on an individual’s perception of their own health? What is the influence of increased screening on the use (necessary and unnecessary) of health services? |
| Country  | National NCD Strategic Objectives                                                                                                                                                                                                                                                                                                                                                     | Implementation Challenges Based on the National NCD Plan                                                                                                                                                                                                                                                                                                                                 | Relevant Implementation Research Questions based on the National NCD Plan                                                                                                                                                                                                                                                                                                                                 |
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| Turkey  | Multisectoral Action Plan of Turkey for Noncommunicable Diseases 2017-2025 was launched in 2017 and it’s goal is to raise the health and wellbeing of the population through reducing preventable deaths and the disability burden attributable to NCDs and thus enabling citizens to maintain the highest attainable health status at all ages. The four strategic pillars of the action plan are the four strategic pillars of the Action Plan: • strengthen national capacities, leadership, governance and partnerships; • reduce modifiable and preventable risk factors; • strengthen the response of the health system; and • monitor trends and determinants of NCDs and evaluate progress in their prevention and control. | future illness and death and may lead to more healthy persons approaching health services, reducing access for patients with serious and chronic disease                                                                                                                                                                                                                                         | i. Are there a more effective mechanisms to implement and monitor the NCD action plan? Are there better ways to organize and provided legal and material support for the mechanism?  
  ii. What is current network of stakeholders who should be involved in NCD control? How is the network organized, and what types of communications and other factors influence key stakeholders in the network? Are there effective strategies to strengthen engagement of key stakeholders to promote NCD control?  
  iii. How do we identify which evidence on NCD control will be most important for supporting NCD policies and their implementation? Are there approaches to bring together key stakeholders and researchers to commission and produce the local evidence needed?  
  iv. How can we build the implementation research capacity with local and international stakeholders?  
  v. How can we reorient the healthcare system to provide timely detection and continuous management of cardiovascular disease conditions, diabetes, and cancer through family medicine services?  
  vi. How can national budget decision-makers be influenced to fully allocate resources to reflect health priorities? What are the barriers to acceptability and adoption of funding for priority NCD programs in the context of other |
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|         |                                   |                                                        | financial and policy constraints? How can these barriers be overcome?         |
|         |                                   |                                                        | vii. How can we build an integrated, nationally relevant NCD/health information system that meets the needs of people who are supposed to use the information system? |
