

Health and Medical Research Fund
Thematic Priorities for 2018 Open Call for Investigator-initiated Projects

(A) Infectious Diseases

Theme 1: Respiratory pathogens (Seasonal and zoonotic influenza, emerging respiratory viruses, and tuberculosis)

Ref. Code

- A-1-01 ○ Identify reasons for low influenza vaccine coverage, especially in high risk groups; develop and evaluate strategies to improve vaccine uptake
- A-1-02 ○ Identify mechanisms and risk factors for the emergence of resistance to antiviral agents to influenza, develop and evaluate effective strategies to ameliorate resistance emergence
- A-1-03 ○ Investigate modes of transmission of respiratory viruses (including determinants of contagiousness) and identify non-pharmaceutical interventions to limit its spread in hospitals and the community
- A-1-04 ○ Develop novel and effective surveillance methods that allow early detection of respiratory viruses at the community level
- A-1-05 ○ Identify new correlates of immune protection against influenza virus infections
- A-1-06 ○ Develop novel therapeutics and vaccines for influenza and other emerging respiratory viruses and / or evaluate their effectiveness using experimental, clinical or public health approaches
- A-1-07 ○ Assess threats from zoonotic influenza viruses or other emerging respiratory viruses and develop methods for reducing zoonotic risk.
- A-1-08 ○ Developing methods and strategies for timely identification and treatment of tuberculosis (TB) reactivation in the elderly
- A-1-09 ○ Developing and testing new anti-TB drugs
- A-1-10 ○ Developing strategies to enhance adherence to treatment for TB

Theme 2: Antibiotic resistance

Ref. Code

- A-2-01 ○ Development of novel diagnostics tools to aid diagnosis and treatment of infections and antimicrobial resistance
- A-2-02 ○ Development of novel preventive measures for antimicrobial resistance
- A-2-03 ○ Development of novel antimicrobials or other alternative agents
- A-2-04 ○ Promoting awareness and education regarding antimicrobial resistance, infection prevention and control, and antibiotic stewardship
- A-2-05 ○ Investigate the role of animal husbandry, wild-life and the environment in contributing to the increase of antibiotic resistance in humans

Theme 3: Vector-borne diseases (including mosquito-, other insect-, and rodent-borne diseases)

Ref. Code

- A-3-01 ○ Developing and testing novel molecular biology-based diagnostic assays to rapidly identify locally acquired cases of vector-borne disease
- A-3-02 ○ Development and evaluation of strategies to minimise the risk of vector-borne diseases from establishing endemic transmission within Hong Kong

(B) Primary Healthcare and Non-communicable Disease

Ref. Code

- B-01 ◦ Health and health services research on major NCD namely cancer, diabetes mellitus, cardiovascular diseases, chronic respiratory diseases and musculoskeletal disorders and their contributing risk factors
- B-02 ◦ Effectiveness of interventions to tackle NCD and their contributing factors
- B-03 ◦ Identification of gene-environment interaction for NCD prevention and control
- B-04 ◦ Application of big data analytics to assist diagnosis, treatment and rehabilitation of patients with NCD
- B-05 ◦ Enhancing primary care services for the prevention of avoidable hospitalizations
- B-06 ◦ Development and evaluation of effectiveness and cost-effectiveness of primary care and chronic disease care service model on NCD and multi-morbidity

(C) Mental Health

Ref. Code

- C-01 ◦ Identify risk and protective factors and trajectories (including genetics, biological, environmental and social factors) for development and prevention of mental disorders
- C-02 ◦ Test novel and evidence-based approach for early interventions for mental disorders
- C-03 ◦ Improve efficiency of health services delivery through health economic research
- C-04 ◦ Develop innovative service model in community settings and environment, in particular those with medical-social collaboration to optimise recovery
- C-05 ◦ Identify means to increase mental health literacy of the general public and destigmatize mental disorders
- C-06 ◦ Study the influence of personal recovery of people from mental disorders

- C-07 ◦ Study effective measures to address carer's physical and psychosocial needs and capacity
- C-08 ◦ Apply innovative technology in the provision of services for mental disorders
- C-09 ◦ Evaluate the impact of physical and mental comorbidity in people with mental disorders

(D) Cancer

Ref. Code

- D-01 ◦ Epidemiology studies on cancer risk factors that can help formulate strategies for primary prevention
- D-02 ◦ Use of appropriate screening strategies for early identification and treatment of cancer
- D-03 ◦ Development of novel diagnostic tools, new treatment modalities including robotic surgery, chemotherapy and radiotherapy to reduce mortality and morbidity
- D-04 ◦ Development and evaluation of cancer survivorship care delivery to address long-term and late effects of cancer
- D-05 ◦ Applied research in genetics and genomics for personalised medicine, in particular target therapies for different tumours
- D-06 ◦ Application of big data analytics to examine clinical information for better management of cancer patients

(E) Implementation Science

Implementation science is a methodological approach that is applicable to any of the research areas under the Health and Medical Research Fund. Broadly speaking, the term implementation research describes the scientific study of the processes used in the implementation of initiatives as well as the contextual factors that affect these processes.¹ Of particular interest are the following –

Ref. Code

- E-01 ◦ Strategies to implement health promotion, prevention, screening, early detection, and diagnostic interventions, as well as effective treatments, clinical procedures, or guidelines in existing care systems
- E-02 ◦ Evaluating clinical, health services and community practices that are not evidence-based
- E-03 ◦ Implementation of multiple evidence-based practices within community or health services settings to meet the needs of complex patients and diverse systems of care

¹ David H. Peters, Nhan T. Tran, Taghreed Adam. Implementation research in health: a practical guide. Alliance for Health Policy and Systems Research, World Health Organization, 2013.