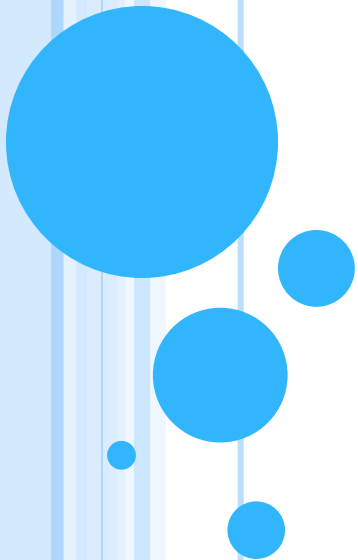


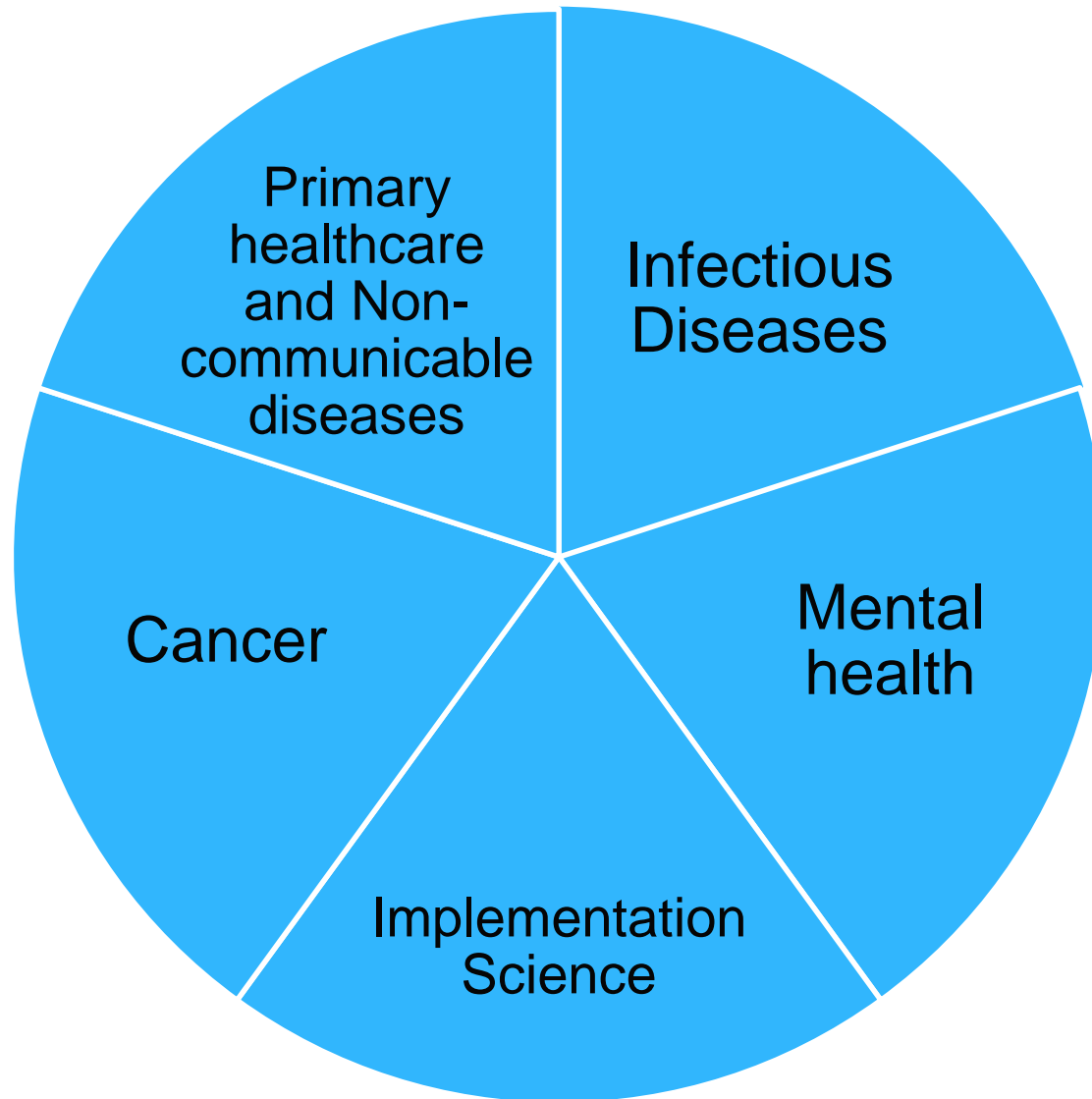
THEMATIC PRIORITIES FOR INVESTIGATOR-INITIATED PROJECTS OF THE HMRF



2021 HMRF OPEN CALL – THEMATIC PRIORITIES

- To stimulate research in key areas considered important by the [Food and Health Bureau](#)
- Set and [reviewed every year](#) by Expert Advisory Panels and endorsed by Research Council
- [List of thematic priorities](#) can be downloaded from Secretariat's website at <https://rfs.fhb.gov.hk>
- Select the [reference code](#) of the most relevant [thematic priorities](#) in [section 5b](#) of the application form
- If the application is [outside](#) the thematic priorities, please **select** “NA” (not applicable)
- Selection of thematic priorities is **MANDATORY**
- [Priority](#) for funding will be given to applications addressing the [thematic priorities](#)

THEMATIC PRIORITIES



INFECTIOUS DISEASES

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

Ref. Code Thematic priority description

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|--------|--|
| A-0101 | Promote research, evaluation and innovation for improved and novel diagnostics, vaccines and treatments against respiratory pathogens |
| A-0102 | Promote operational research for prevention, control and programme delivery |
| A-0103 | Promote research to better understand the pathogen characteristics and host factors that drive the impact of respiratory infections |
| A-0104 | Identify reasons for low vaccine coverage, especially in high risk groups; develop and evaluate strategies to improve vaccine uptake |
| A-0105 | Identify mechanisms and risk factors for the emergence of resistance to antiviral agents to respiratory pathogens, develop and evaluate effective strategies to ameliorate resistance emergence |
| A-0106 | Investigate modes of transmission of respiratory pathogens (including determinants of contagiousness) and identify non-pharmaceutical interventions to limit its spread in hospitals and the community |

INFECTIOUS DISEASES

Ref. Code Thematic priority description

- A-0107 Develop novel and effective surveillance methods that allow early detection of respiratory pathogens at the community level
- A-0108 Identify new correlates of immune protection against respiratory pathogens
- A-0109 Assess threats from zoonotic or other emerging respiratory pathogens and develop methods for reducing zoonotic risk.
- A-0110 Impact of co-circulation or co-infection with COVID-19 and other respiratory pathogens
- A-0111 Evaluation of concomitant use of COVID-19 vaccines with vaccines for other infectious diseases

INFECTIOUS DISEASES

Theme 2: Antimicrobial resistance

Ref. Code	Thematic priority description
A-0201	Development of novel diagnostics tools to aid diagnosis and treatment of infections and antimicrobial resistance
A-0202	Development of novel preventive measures for antimicrobial resistance
A-0203	Development of novel antimicrobials or other alternative agents
A-0204	Promoting awareness and education regarding antimicrobial resistance, infection prevention and control, and antibiotic stewardship
A-0205	Investigate the role of animal husbandry, wild-life and the environment in contributing to the increase of antibiotic resistance in humans
A-0206	Novel approaches to decolonise patients carrying multiple drug-resistant organisms, including antimicrobial therapy and/or faecal transplantation

INFECTIOUS DISEASES

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

Ref. Code Thematic priority description

- A-0301 Epidemiology, monitoring and management of vectors, reservoirs and human infection of vector-borne diseases

- A-0302 Developing and testing novel molecular biology-based diagnostic assays to rapidly identify locally acquired cases of vector-borne disease

- A-0303 Novel therapeutic strategies for vector-borne diseases

- A-0304 Development and evaluation of strategies to minimise the risk of vector-borne diseases from establishing endemic transmission within Hong Kong

- A-0305 Examine the epidemiology of human rat hepatitis E infection for better understanding on its local prevalence, associated risk factors and the route of transmission

INFECTIOUS DISEASES

Theme 4: HIV / AIDS

Ref. Code	Thematic priority description
A-0401	Immune mechanisms underlying HIV/AIDS pathogenesis
A-0402	Novel vaccines for eliciting protective immune responses
A-0403	Innovative small molecule and immunotherapeutic drugs (including antibody drugs)
A-0404	Therapeutic interventions to cure HIV infection or latency eradication

INFECTIOUS DISEASES

Theme 5: Preparedness and response to pandemic and epidemic

Ref. Code	Thematic priority description
A-0501	Utilising big data, artificial intelligence, digital technologies and –omics approaches for clinical and public health applications, including contact tracing, screening for infection, surveillance and clinical management
A-0502	Evaluating psychological, societal and economic impact of infection control interventions
A-0503	Developing assessment frameworks for ethical, legal and privacy issues on the use of digital health technology

PRIMARY HEALTHCARE AND NON-COMMUNICABLE DISEASES (NCD)

Ref. Code Thematic priority description

- B-0001 Health and health services research on major NCD including cancer, diabetes mellitus, heart disease, stroke, hypertension, respiratory diseases and closely related diseases such as musculoskeletal disorders and injury and their risk factors including unhealthy diet, physical inactivity, tobacco and **nicotine** use, alcohol, **obesity** and psychosocial problems
- B-0002 Effectiveness of interventions to tackle NCD and their risk factors
- B-0003 Health and health services research tackling **issues relating** to ageing population including sarcopenia, frailty, fracture, **falls, cognitive impairment** and promotion of healthy ageing
- B-0004 **Clinical application of knowledge from genetic/genomic analysis and gene-environment interaction to prevention / personalised treatment of NCDs**
- B-0005 Application of big data analytics to assist diagnosis, treatment and rehabilitation of patients with NCD
- B-0006 Enhancing primary care services for the prevention of NCD and avoidable hospitalisations

MENTAL HEALTH

Ref. Code	Thematic priority description
C-0001	Identify risk and protective factors and trajectories (including genetics, biological, environmental and social factors) at population level for development and prevention of mental disorders, particularly for vulnerable and disadvantaged populations such as children and adolescents, ethnic minorities, people with disabilities, etc.
C-0002	Test novel and evidence-based approach for early interventions for mental disorders
C-0003	Develop innovative service models and improve the efficiency of service delivery through implementation science and health economics research, in particular those with medical-social collaboration in the community.
C-0004	Identify means to increase mental health literacy and enhance mental wellbeing of the general public and destigmatise mental disorders
C-0005	Study factors that influence personal recovery of people from mental disorders

MENTAL HEALTH

Ref. Code Thematic priority description

- | | |
|--------|--|
| C-0006 | Study effective measures to address physical and psychosocial needs and capacity of carers, and in particular vulnerable carers such as single mothers and elderly couples |
| C-0007 | Apply innovative technology in the provision of accessible screening and preventative interventions and services for mental disorders |
| C-0008 | Evaluate the impact of physical and mental comorbidity in people with mental disorders |

CANCER

Ref. Code Thematic priority description

- D-0001 Epidemiology studies on cancer risk factors that can help formulate strategies for primary prevention
- D-0002 Use of appropriate screening strategies for early identification and treatment of cancer
- D-0003 Development of novel diagnostic tools; new treatment modalities including advanced surgical techniques, systemic therapy and radiotherapy to reduce mortality and morbidity
- D-0004 Development and evaluation of cancer rehabilitation and cancer survivorship / palliative care delivery to address long-term and late effects of cancer
- D-0005 Applied research in genetics and genomics for personalised medicine, in particular target therapies for different tumors
- D-0006 Application of big data analytics to examine clinical information for better management of cancer patients
- D-0007 Development and evaluation of telehealth approaches to cancer care, including patient knowledge and empowerment, screening, diagnosis, treatment and monitoring, prevention, recovery and rehabilitation services to support more efficient workflow

IMPLEMENTATION SCIENCE

- Implementation Science aims:
 - To promote the **systematic uptake of research findings** and other **evidence-based information into routine practice**
 - To assess the performance, and, hence, improve the **quality and effectiveness of health services**
- Proposals submitted under the thematic priorities of Implementation Science should aim to **improve the existing healthcare system** in terms of enhancing patient care or informing health policies
- Interested parties from **non-academic** institutions are highly recommended to **collaborate** with partners from **academic** institutions to prepare their **implementation research** proposals

IMPLEMENTATION SCIENCE

- Established theories, frameworks, models and taxonomies can be used to analyse barriers and facilitators of implementation outcomes
 - Consolidated Framework for Implementation Research (CFIR)
 - Practical, Robust, Implementation Sustainability Model (PRISM)
 - Reach Effectiveness Adoption Implementation Maintenance (RE-AIM)
 - Theoretical Domains Framework (TDF)
 - Promoting Action on Research Implementation in Health Services (PARHiS)

IMPLEMENTATION SCIENCE

Ref. Code Thematic priority description

- E-0001 Strategies to implement health promotion, prevention, screening, early detection, and diagnostic interventions, as well as effective treatments, clinical procedures, or guidelines by enhancing the existing care systems through patient-level or system-level interventions
- E-0002 To develop strategies for contextualising clinical, patient-level and system-level interventions, and practice-based evidence for implementation of clinical health service and community-based practice
- E-0003 To conduct formative and process evaluation for improving implementation outcomes
- E-0004 Implementation of multiple levels of interventions within community or health services settings to meet the needs of complex patients and diverse systems of care
- E-0005 Studies of dissemination strategies that aim to promote the use of evidence **and its sustainability** in public policy and health care policy, and develop methods and measures focused on policy dissemination and implementation for policy contexts including assessment of applicability and adaptability.⁶ Formative studies that can inform the design of policy dissemination strategies are also of interest.

IMPLEMENTATION SCIENCE

Examples of implementation science research proposals in each HMRF Area of Project

HHS	An implementation science approach to adapting healthy movement behaviour guidelines for Hong Kong preschool-aged children
ID	Increasing rotavirus vaccine uptake: a randomised controlled trial
AMR	Implementation of multi-biomarkers algorithm for detection in Chinese obese individuals with non-alcoholic fatty liver disease
HP	Promoting advance care planning in persons with early dementia and their family caregivers in the community

THANK YOU