

Health and Medical  
Research Fund:

2021-22 Annual Report

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## **Health and Medical Research Fund**

On 9 December 2011, the Legislative Council (LegCo) Finance Committee approved a new commitment of \$1,415 million for setting up the Health and Medical Research Fund (HMRF), by consolidating the former Health and Health Services Research Fund (HHSRF) and the former Research Fund for the Control of Infectious Diseases (RFCID), with a broadened scope for funding health and medical research in Hong Kong. Research projects funded under the former HHSRF and the former RFCID have been subsumed under the HMRF.

On 28 May 2016, the Finance Committee approved to increase the approved commitment for the HMRF from \$1,415 million by \$1,500 million to \$2,915 million to sustain its operation for another five years from 2017-18 to 2021-22 and expand the scope of the HMRF to incorporate the functions of the former Health Care and Promotion Fund<sup>1</sup> (HCPF). After the consolidation of the HMRF and the HCPF on 28 April 2017, the HCPF and the HCPF Committee (the governing body of the HCPF) were renamed as the Health Care and Promotion Scheme (HCPS) and the Health Care and Promotion Committee (HCPC) respectively.

To further streamline the operation of the HMRF, on 1 August 2018, the HCPC and its Promotion Sub-Committee (technical arm of the HCPC) were consolidated and subsumed under the Grant Review Board (GRB, technical arm of the Research Council (RC)) for providing technical support to the RC for the HCPS. The RC thus became the sole governing body of the HMRF to provide strategic steer for all funding schemes (including the HCPS) under the HMRF. In December 2018, the annual open call for investigator-initiated research projects and the annual open call for HCPS were consolidated into one single open call.

On 28 April 2021, the LegCo approved to further increase the commitment of the HMRF by \$1,308 million (from \$2,915 million to \$4,223 million) to sustain the HMRF's operation and enhance the funding scope of HMRF.

The HMRF aims to build research capacity and to encourage, facilitate and support health and medical research to inform health policies, improve population health, strengthen the health system, enhance healthcare practices, advance standard and quality of care, and promote clinical excellence, through generation and application of evidence-based scientific knowledge derived from local research in health and medicine. It also provides funding support to evidence-based health

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<sup>1</sup> The Health Care and Promotion Fund (HCPF) was established in 1995 to provide financial support for activities related to health promotion, preventive care and related research; and patients in need of treatment not available in Hong Kong, particularly in respect of rare diseases. In 2006, the HCPF Committee decided to revise the scope the HCPF to focus primarily on health promotion activities and disease prevention.

promotion projects that help people adopt healthier lifestyles by enhancing awareness, changing adverse health behaviours or creating a conducive environment that supports good health practices.

The HMRF considers funding health and medical research/projects in the following areas –

- (a) public health, human health and health services (e.g. primary care, non-communicable diseases, Chinese medicine, etc.);
- (b) prevention, treatment and control of infectious diseases, in particular emerging and re-emerging infectious diseases;
- (c) advanced medical research which applies advanced technologies including but not limited to biotechnology in medicine, use of drugs and treatments, clinical trials, virtual health such as telemedicine, etc., to facilitate the translation of knowledge generated from health and health services or infectious diseases studies into clinical practice and to inform health policy; and
- (d) health promotion that facilitates mobilisation of local resources to promote good health and prevention of illness in the community.

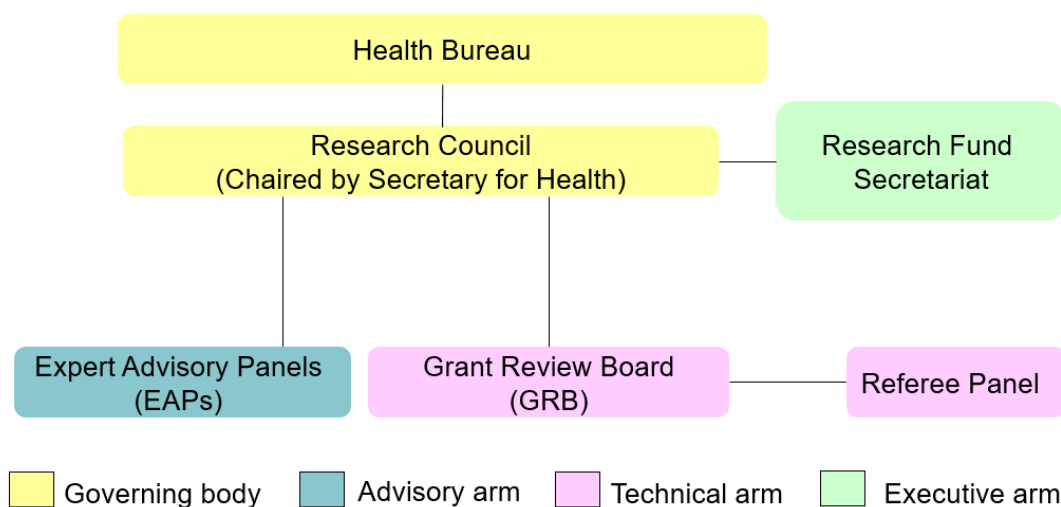
The HMRF provides funding support for the following types of projects –

- (a) Investigator-initiated Projects (funding ceiling: \$1.5 million per project) – to support research studies and health promotion projects from individual applicants in response to "HMRF Open Call" invitations for grant applications guided by reference to the thematic priorities.
- (b) Government-commissioned Programmes – to support specific programmes commissioned to, inter alia, build research capacity, fill knowledge gaps, support policy formulation, address specific issues, assess needs and threats, etc. Funding may cover research projects, facilities, infrastructure and other capacity building initiatives as appropriate.
- (c) Research Fellowship Scheme (funding ceiling: \$1.2 million per award) – to enhance research capability and build research capacity to facilitate the translation of knowledge into formulation of health policy and clinical practice. Research fellowships will be awarded to eligible candidates covering a range of research areas and specialties on the advice of the RC.

In general, members of any disciplines or profession in health or health-related field can apply for funding. Grants may be awarded to tertiary institutions, hospitals, medical schools, non-governmental organisations or other appropriate centres, units or services. Members of other disciplines, such as social welfare and education may also apply if the proposed projects are within the ambit of the HMRF.

On completion of approved projects, the final and dissemination reports will be assessed before dissemination via the website (<https://rfs.healthbureau.gov.hk>), the Hong Kong Medical Journal and at the monthly Journal Club meetings. In addition, the HMRF organises the Health Research Symposium every two to three years to provide a platform for experts, researchers, healthcare professionals and community partners to share their knowledge and achievements in various research and health promotion topics, and acknowledge outstanding projects funded by the HMRF.

## Governance



Chaired by the Secretary for Health, the RC is responsible for providing strategic steer for funding health and medical research and health promotion projects, and overseeing the administration of the HMRF including the allocation of funds for approved grants. Its terms of reference are as follows –

- (a) to determine research agenda and funding control mechanism of the HMRF;
- (b) to approve procedures for inviting, and criteria for vetting grant applications;
- (c) to approve standard terms and conditions for grant holders;

- (d) to approve funding allocation after peer-review process;
- (e) to approve processes for the ongoing monitoring and evaluation of approved research/projects;
- (f) to establish the GRB to carry out the technical work of the RC;
- (g) to disseminate key findings of funded projects; and
- (h) to supervise the management and investment of the fund.

The RC is supported by two arms – the Expert Advisory Panels<sup>2</sup> as the advisory arm, and the Referee Panel, GRB and GRB Executive (chairman of GRB) as the technical arm. Referee Panel comprises non-local experts who are selected according to their specific field of expertise to review grant applications.

The membership of the RC and their supporting committees can be found at *Appendix A*. Their operation is supported by the Research Fund Secretariat of the Research Office under the Health Bureau.

## **Highlights of 2021-22**

### *Investigator-initiated Projects*

The HMRF since its establishment in 2011 has supported 1,572 investigator-initiated projects, of which 795 projects have been completed and closed. These projects cover most research topics under the thematic priorities on –

- (a) Health and Health Services – management and prevention of major non-communicable diseases including cardiovascular illnesses, cerebrovascular diseases, cancers and diabetes; modifiable lifestyle factors including tobacco control, mental health, injury prevention, sleep deprivation, exercise and health; reproductive health; health services including primary care, chronic disease management, elderly care and Chinese medicine;
- (b) Infectious Diseases – epidemiology, surveillance and control of emerging and re-emerging infectious diseases, antimicrobial resistance, and immunology

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<sup>2</sup> In August 2018, the Research Council (RC) endorsed to establish a series of Expert Advisory Panels to act as the advisory arm of the RC to (a) advise the RC on research policy and foci with respect to their areas of expertise and (b) make recommendations to the RC on the thematic priorities for the investigator-initiated studies/projects.

and vaccination research;

- (c) Advanced Medical Research – use of advanced technologies to understand the prevalence, risk factors, causes, diagnosis, treatment and prevention of a wide range of human diseases and conditions; and
- (d) Health Promotion - reduction of tobacco/alcohol-related problems, strengthening of preventive care in children, adolescents, elderly and ethnic minorities, promotion of healthier lifestyles, empowerment of patients in chronic disease management, mental health promotion, injury prevention and breastfeeding, women's health and sexual health.

During the year, final reports of 79 completed investigator-initiated projects were assessed. Projects with findings that merit wider dissemination to the research community are published as a supplement to the Hong Kong Medical Journal and uploaded onto the website <https://rfs.healthbureau.gov.hk/> for public access.

### Annual Open Call for Investigator-initiated Projects

The 2021 HMRF Open Call for Investigator-initiated Projects was announced in December 2021. Those falling under the thematic priorities (*Appendix B*) will be given higher priority for funding. In accordance with the thematic priorities and the established assessment criteria<sup>3</sup>, the GRB's recommendations on funding applications will be considered by the RC. Funding results will be announced in October 2022.

### Government-commissioned Programmes

Since the establishment of the HMRF, 24 commissioned programmes (covering about 200 individual studies) have been approved in the following areas –

- (a) **Infectious diseases** including studies on prevention, control and treatment of infectious diseases, including COVID-19, to address important research areas in transmissibility and infectivity of the virus, effective detection and

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<sup>3</sup> Grant applications are assessed through a stringent two-tier review process, first by the Referee Panel, and then by the Grant Review Board. The established assessment criteria for research projects include originality of the research topic, relevance to the scope of funding and thematic priorities, significance of the research question, quality of scientific content, credibility for study design and method, feasibility of the intended project, research ethics, translational potential/value, the past performance and track records of the grant applicants and research capability of the administering institution. The established assessment criteria for health promotion projects include potential impact in response to the health needs of the target local community, scientific evidence of effectiveness of the proposed health promotion activities, innovation, relevance to thematic priorities, feasibility of the proposal, evaluation plan of programme effectiveness, cross-sector collaboration, in particular collaboration between non-governmental organisations and tertiary institutions, track record of the applicants and the administering institution, justification of requested budget, impact and sustainability of the programme and potential to build community capacity in health promotion.

surveillance, prevention strategies of the disease and development of vaccines, treatments and therapies; surveillance and evaluation of clinical trials on influenza and vaccination programmes, including the use of imiquimod in elderly and chronic illness subjects;

- (b) **Non-communicable diseases** including identifying the risk of breast cancer; evaluation of Government's colorectal cancer screening pilot programme; and surveys on mental health morbidity in different age groups;
- (c) **Life-course research** targeting paediatric population such as nurturing a breastfeeding friendly community and identifying mothers' barriers to sustain exclusive breastfeeding; survey on vitamin D status of infants, young children and pregnant women; and review of growth charts for Hong Kong children; and elderly care including review on end-of-life care and service models to improve quality of healthcare for the elderly;
- (d) **Clinical trials and cohort studies** including setting up of Phase I Clinical Trials Centres; conducting early phase clinical trials on novel pharmaceutical products; and following up various local cohorts relating to long-term use of aspirin, young-onset diabetes, late-onset dementia, depressive and anxiety symptoms, non-communicable diseases in "Children of 1997" birth cohort, environmental impact to households, elderly health services, primary care of hypertension and diabetes, and cardiovascular risk factors; and
- (e) **Research on policy issues** including review on healthcare manpower planning; review on regulatory framework for healthcare professional development; evaluating the impact of tobacco control policies in Hong Kong; and mental health promotion through community partnership programmes.

Eight programmes have been completed and closed.

The final reports and dissemination reports of satisfactorily completed research programmes are posted on the website (<https://rfs.healthbureau.gov.hk>) for wider dissemination to the research community.

### Research Fellowship Scheme

The Research Fellowship Scheme has been launched since 2015 to support researchers or professionals in their early to mid-career, particularly healthcare professionals to enhance their skills in public health and health services research. Tertiary institutions funded by the University Grants Committee (UGC) are invited to nominate fellowship applicants annually. In order to provide more



training opportunities to build up the research capacity of Hong Kong to meet future needs and challenges, invitation for applications has been extended to the two designated teaching hospitals (i.e. Prince of Wales Hospital and Queen Mary Hospital) starting from the 2021 application round. The grant ceiling per award is \$1.2 million including up to \$0.4 million<sup>4</sup> for overseas training/attachment relating to health services or public health, in particular public health policy topics. Higher priority would be given to applications which address cancer and the preventable or modifiable risk factors for non-communicable diseases namely smoking, alcohol drinking, unhealthy diet and physical inactivity. Forty-four awards have been approved since the implementation of the Scheme.

The 2021 Open Call was issued in September 2021 and closed on 3 December 2021. A total of 24 applications were received. The Research Fellowship Assessment Panel's recommendations on funding applications will be considered by the RC. Funding results will be announced in July 2022.

### Health Research Symposium 2021

The Health Research Symposium 2021 (the Symposium) with the central theme of “*Implementing evidence-based research in the era of COVID-19 and other global health challenges*” was held on 23 November 2021 to disseminate research findings, recognise excellent research and health promotion projects, facilitate academic exchange and further collaborative healthcare research. Distinguished Speakers were invited to deliver keynote lectures on the topics of COVID-19 pandemic and implementation science. Leading local project teams from a variety of health-related disciplines shared their experience and research results of funded projects on combating COVID-19 and preparedness for the next pandemic, implementing research findings in clinical practice and translating knowledge to primary healthcare. This Symposium which also marked the 10<sup>th</sup> anniversary of the establishment of the HMRF attracted 691 participants in the fields of health and medical research and health promotion, including experts, academics, healthcare professionals and community leaders. Awards were presented to acknowledge the outstanding work supported by the HMRF. Two special awards, namely, the Outstanding Project Team on COVID-19 Research Awards, which commemorates exemplary project teams working on COVID-19 commissioned studies and the 10th HMRF Anniversary Awards, which recognises longstanding achievements in projects funded by the HMRF, were also presented.

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<sup>4</sup> Since the 2019 Open Call for Research Fellowship Scheme, the budgets for training plan and research plan have been revised from \$0.2 million to up to \$0.4 million and about \$1 million to \$0.8 million respectively.

### Financial Position

The cash balance of the HMRF as at 31 March 2022 is \$2,519.10 million, with an uncommitted funding balance of \$1,197.82 million (i.e. funding available for new projects/programmes). The financial position of the HMRF for the 2021- 22 financial year is at **Appendix C**.

The cash balance and the uncommitted fund balance (in cash basis) of the former HCPF<sup>5</sup> as at 31 March 2022 is \$1.94 million and \$0.03 million<sup>6</sup> respectively. The audited accounts of the HCPS for the 2021-22 financial year ended 31 March 2022 are at **Appendix D**.

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<sup>5</sup> The Hospital Authority (HA) is the custodian and bookkeeper of the Health Care and Promotion Fund (HCPF). Annual audited accounts of the HCPF have been tabled at the Legislative Council since 2014-15. The cash balance comprised cash and cash equivalents and bank deposits held by the HA (recorded as amount due from the HA in the audited accounts for the HCPF (renamed as Health Care and Promotion Scheme on 28 April 2017)). Before the consolidation of the Health and Medical Research Fund and the HCPF, the uncommitted fund balance (in cash basis) of the former HCPF as at 31 March 2017 was \$5.25 million.

<sup>6</sup> The uncommitted balance represented cash balance (\$1.94 million) less funds committed but not yet recognised (\$1.90 million) and accounts payable (\$0.01 million). \$0.03 million will be designated in 2022-23 for the Commissioned Project on Nurturing a Breastfeeding Friendly Community for the Betterment and Sustainability of Children's Well-being in 2022-23. The approved budget for this study is \$3.5 million, of which \$1.1 million is charged to HMRF.

**Membership of  
the Research Council and its Supporting Committees  
(as at 31 March 2022)**

**(A) *Research Council***

**Chairperson**

Secretary for Health  
(or Permanent Secretary for Health)

**Non-official Members**

Prof Juliana CHAN Chung-ngor

Dr Vincent CHENG Chi-chung

Prof Timothy KWOK Chi-yui

Prof Linda LAM Chiu-wa

Prof LAU Chak-sing

Prof LEUNG Suet-yi

Prof LIN Chia-chin

Prof Vivian LIN Kwang-wen

Prof LYU Aiping

Prof David MAN Wai-kwong

Prof Tony MOK Shu-kam

Prof Hextan NGAN Yuen-sheung

Prof David SHUM Ho-keung

Prof Samuel WONG Yeung-shan

Prof YIP Shea-ping

**Ex-officio Members**

Secretary for Innovation, Technology and Industry (or representative)

Director of Health (or representative)

Chief Executive of Hospital Authority (or representative)

Dean of the Faculty of Medicine of The Chinese University of Hong Kong  
(or representative)

Dean of the Li Ka Shing Faculty of Medicine of The University of Hong  
Kong (or representative)

**Secretary**

Head of Research Office  
Health Bureau

**(B) Grant Review Board Executive**

**Terms of Reference:**

The terms of reference of the Grant Review Board Executive are –

- (a) to assess and recommend action (on behalf of the Grant Review Board (GRB)) on requests for additional funds, budget revision and/or reallocation, changes to study design or methods, and changes to the principal applicant or administering institution;
- (b) to monitor the quality of the peer review including the assignment of referees to grants for review;
- (c) to monitor the response of grant applicants and grant holders to requests by the GRB;
- (d) to evaluate and advise the GRB regarding changes to the grant or final report review process; and
- (e) to advise the Research Fund Secretariat on the monitoring of the progress of current research/projects.

**Non-official Members**

Prof Francis CHAN Ka-leung

Prof Paul CHAN Kay-sheung

Ms Mabel CHAU Man-ki

Prof David HUI Shu-cheong

Prof Ivan HUNG Fan-ngai

Prof Nancy IP Yuk-yu

Prof Timothy KWOK Chi-yui

Prof Karen LAM Siu-ling

Prof LAU Yu-lung

Prof Gabriel Matthew LEUNG

Prof David MAN Wai-kwong

Prof Alexandros MOLASIOTIS

Dr Thomas TSANG Ho-fai

Dr Gene TSOI Wai-wang

Prof Martin WONG Chi-sang

Prof YEOH Eng-kiong

Prof YIP Shea-ping

**(C) *Grant Review Board***

**Terms of Reference:**

The terms of reference of the Grant Review Board are –

- (a) to advise Standard Operating Procedures for the grant submission and review process, and the assessment and dissemination of final reports;
- (b) to review and assess applications and recommend projects for funding;
- (c) to review and assess final and dissemination reports;
- (d) to promote the development of research in the areas of health and health services, controlling infectious diseases, advanced medicine and health promotion in the wider community;
- (e) to monitor the progress of approved projects; and
- (f) to monitor the financial performance of approved projects.

**Non-official Members**

Dr Raymond AU Wing-cheong

Prof John BACON-SHONE

Prof BIAN Zhao-xiang

Prof CAI Zongwei

Prof CHAIR Sek-ying

Dr CHAN Wai-man

Prof CHAN Ying-shing

Prof Allen CHAN Kwan-chee

Prof Andrew CHAN Man-lok

Prof Chetwyn CHAN Che-hin

Prof Daniel CHAN Tak-mao

Dr Dorothy CHAN Fung-ying

Dr Douglas CHAN Nim-tak

Prof Emily CHAN Ying-yang

Dr Engle Angela CHAN

Prof Godfrey CHAN Chi-fung

Dr Johnny CHAN Wai-man

Prof Juliana CHAN Chung-ngor

Dr Karen CHAN Kar-loen

Mr Leslie CHAN Kwok-pan

Dr David CHAO Vai-kiong

Prof Kathryn CHEAH Song-eng

Prof Gladys CHEING Lai-ying

Prof CHEN Honglin

Prof CHEN Zhiwei

Dr Catherine CHEN Xiao-rui

Dr Andy CHENG Shu-kei

Prof Cecilia CHENG

Dr Daniel CHEUK Ka-leung

Dr CHEUNG Kin

Prof CHEUNG Yiu-fai

Prof Annie CHEUNG Nga-yin

Prof Bernard CHEUNG Man-yung

Prof Raymond CHEUNG Tak-fai

Prof James CHIM Chor-sang

Dr Wilson CHING Yick-pang

Dr CHOI Cheung-hei

Dr CHOW Chun-bong

Dr CHOW Tam-lin

Prof Winnie CHU Chiu-wing

Prof William CHUI Chun-ming

Prof CHUNG Pak-kwong

Dr Brian CHUNG Hon-yin

Prof Benjamin John COWLING

Dr Daniel FONG Yee-tak



Prof Kenneth FONG Nai-kuen

Prof Tony GIN

Prof James Francis GRIFFITH

Dr HO Lai-ming

Dr HO Pak-leung

Dr Daniel HO Sai-yin

Ms Kimmy HO Wai-kuen

Prof Rainbow HO Tin-hung

Prof HUANG Yu

Dr Wendy HUANG Yajun

Dr Dennis IP Kai-ming

Prof Margaret IP

Prof Mary IP Sau-man

Dr Patrick IP

Prof JIN Dong-yan

Prof KHOO Ui-soon

Mr LAI Chi-tong

Prof Daniel LAI Wing-leung

Prof Jimmy LAI Shiu-ming

Prof Paul LAI Bo-san

Prof Timothy LAI Yuk-yau

Prof LAM Ching-wan

Prof LAM Tai-hing

Prof LAM Tai-pong

Dr Andrew LAM Kwok-cheung

Prof Cindy LAM Lo-kuen

Dr David LAM Chi-leung

Prof Linda LAM Chiu-wa

Dr Wendy LAM Wing-tak

Prof LAU Chak-sing

Prof Joseph LAU Tak-fai

Dr LEE Chi-chiu

Dr LEE So-lun

Dr LEE Yuen-lun

Dr Aaron LEE Fook-kay

Dr Calvin LEE Kai-fai

Dr Jenny LEE Shun-wah

Prof Tatia LEE Mei-chun

Dr LEUNG Chi-chiu

Mr LEUNG Kwok-fai

Prof LEUNG Suet-yi

Prof LEUNG Ting-fan

Prof LEUNG Wai-keung

Dr LEUNG Wing-cheong

Prof Angela LEUNG Yee-man

Dr Eugenie LEUNG Yeuk-sin

Prof Gilberto LEUNG Ka-kit

Mr James LEUNG Wing-yee

Dr William LI Ho-cheung

Prof LIN Zhi-xiu

Prof LO Kwok-wai

Dr Janice LO Yee-chi

Dr Raymond LO See-kit

Prof Alice LOKE YUEN Jean-tak

Dr Lobo LOUIE Hung-tak

Dr Annissa LUI Wai-ling

Prof Grace LUI Chung-yan

Dr Christopher LUM Chor-ming

Prof Maria LUNG LI

Prof LYU Aiping

Prof Margaret MAK Kit-yi

Dr Francis MOK Chun-keung

Prof John Malcolm NICHOLLS

Prof NG Wai-tong

Prof Irene NG Oi-lin

Dr Roger NG Man-kin

Prof Simon NG Siu-man

Prof Hextan NGAN Yuen-sheung

Prof Marco PANG Yiu-chung

Prof Leo POON Lit-man

Prof Randy POON Yat-choi

Dr Catherine Mary SCHOOLING

Prof SHEN Jiengang

Prof Cindy SIT Hui-ping

Prof SZETO Cheuk-chun

Prof TAM Lai-shan

Dr Stanley TAM Kui-fu

Prof Kathryn TAN Choon-beng

Prof Nelson TANG Leung-sang

Prof Sydney TANG Chi-wai

Prof Agnes TIWARI Fung-yee

Prof TO Ka-fai

Dr Antonio TONG Chi-kit

Prof Kenneth TSANG Wah-tak

Prof TSE Hung-fat

Mr TSE Hung-sum

Dr Gary TSE Man-kit

Prof Karl TSIM Wah-keung

Prof Stephen TSUI Kwok-wing

Dr Wendy TSUI Wing-sze

Ms Deborah WAN Lai-yau

Ms Eppie WAN Ho-yu

Dr Kelvin WANG Man-ping

Prof WING Yun-kwok

Mr WONG Cheuk-kin

Prof WONG Yung-hou

Dr Cesar WONG Sze-chuen

Prof Frances WONG Kam-yuet

Prof Gary WONG Wing-kin

Prof Samuel WONG Yeung-shan

Prof Stephen WONG Heung-sang

Dr Victoria WONG Wing-yee

Dr William WONG Chi-wai

Prof Joseph WU

Dr Kitty WU Kit-ying

Dr YAM Wing-cheong

Prof Bryan YAN Ping-yen

Prof Maurice YAP Keng-hung

Prof YEUNG King-lun

Dr Rebecca YEUNG Mei-wan

Mr Silva YEUNG Tak-wah

Prof YU Weichuan

Prof Doris YU Sau-fung

Prof YUEN Kwok-yung

Dr John YUEN Wai-man

Prof Patrick YUNG Shu-hang

Prof Benny ZEE Chung-ying

Prof ZHANG Zhang-jin

Prof ZHAO Zhongzhen

**Ex-officio Members**

Dr Rachel CHENG Pui-yan

Dr Thomas CHUNG Wai-hung

Dr FUNG Ying

Dr Anne FUNG Yu-kei

Dr Raymond HO Lei-ming

Dr Wiley LAM Tak-chiu

**(D) Expert Advisory Panels**

**Terms of Reference:**

The terms of reference of the Expert Advisory Panels are –

- (a) to advise the Research Council (RC) on research policy and foci with respect to their areas of expertise; and
- (b) to make recommendations to the RC on the thematic priorities for the investigator-initiated studies/projects.

**(i) Expert Advisory Panel for Cancer**

**Chairperson**

Secretary for Health

**Non-official Members**

Prof Allen CHAN Kwan-chee

Prof Anthony CHAN Tak-cheung

Prof Ava KWONG

Dr Wendy LAM Wing-tak

Prof Raymond LIANG Hin-suen

Prof Maria LUNG LI

Prof Tony MOK Shu-kam

Prof Irene NG Oi-lin

Prof Hextan NGAN Yuen-sheung

Dr WONG Kam-hung

**(ii) Expert Advisory Panel for Infectious Diseases**

**Chairperson**

Secretary for Health

**Non-official Members**

Prof Paul CHAN Kay-sheung

Prof David HUI Shu-cheong

Prof Ivan HUNG Fan-ngai

Prof Gabriel Matthew LEUNG

Prof Joseph Sriyal Malik PEIRIS

Prof YUEN Kwok-yung

**(iii) Expert Advisory Panel for Implementation Science**

**Chairperson**

Secretary for Health

**Non-official Members**

Prof LIN Chia-chin

Prof Frances WONG Kam-yuet

Prof Martin WONG Chi-sang

Prof YEOH Eng-kiong



**(iv) Expert Advisory Panel for Mental Health**

**Chairperson**

Secretary for Health

**Non-official Members**

Prof Eric CHEN Yu-hai

Prof CHIEN Wai-tong

Dr HUNG Se-fong

Prof Linda LAM Chiu-wa

Prof Winnie MAK Wing-sze

Prof Samson TSE Shu-ki

**(v) Expert Advisory Panel for Primary Healthcare and Non-Communicable Disease**

**Chairperson**

Secretary for Health

**Non-official Members**

Prof Juliana CHAN Chung-ngor

Prof LAM Tai-hing

Prof Cindy LAM Lo-kuen

Prof Samuel WONG Yeung-shan

Prof Doris YU Sau-fung

Prof Patrick YUNG Shu-hang

## Thematic Priorities - 2021 Open Call for Investigator-initiated Projects

### **(A) Infectious Diseases**

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

**Ref. Code**

- 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
- 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

### **Theme 2: Antimicrobial resistance**

**Ref. Code**

- 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

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

**Ref. Code**

- 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

**Theme 4: Human Immunodeficiency Virus (HIV) / Acquired Immune Deficiency Syndrome (AIDS)**

**Ref. Code**

- 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

**Theme 5: Preparedness and response to pandemic and epidemic**

**Ref. Code**

- 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

**(B) Primary Healthcare and Non-communicable Disease**

Notes:

- a) Cancer and mental illness are also types of non-communicable disease and thematic priorities for these areas are set out under the broad themes of “Cancer” and “Mental Health”.
- b) Several of the thematic priorities under the broad theme of “Primary healthcare and non-communicable disease” relate to elderly population/ageing. Please also refer to **A-0104** under the broad theme of “Infectious Diseases” and **C-0006** under the broad theme of “Mental Health”.

**Ref. Code**

- 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
- B-0007 ○ Development and evaluation of effectiveness and cost-effectiveness of collaborative, interdisciplinary, inter-sectoral and integrated care service models (including public-private interface) for prevention and management of NCD and multi-morbidity

**(C) Mental Health**

Notes:

- a) Mental illness is also a type of non-communicable disease and thematic priorities for non-communicable disease are set out under the broad themes of “Primary Healthcare and Non-communicable Disease”, “Cancer” and “Mental Health”.
- b) Interdisciplinary research with a view to provide scalable, implementable, translational interventions under any of the thematic priorities listed below is appreciated.

**Ref. Code**

- 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 with mental disorders
- 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

### **(D) Cancer**

#### Note:

Cancer is also a type of non-communicable disease and thematic priorities for non-communicable disease are set out under the broad themes of “Primary Healthcare and Non-communicable Disease”, “Cancer” and “Mental Health”.

#### **Ref. Code**

- 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

### **(E) Implementation Science**

#### Introduction

Implementation science aims to promote the systematic uptake of research findings and other evidence-based information into routine practice. It also aims to assess the performance, and, hence, improve the quality and effectiveness of health services. Proposals submitted under this thematic priority should aim to improve the existing healthcare system in terms of enhancing patient care or informing health policies.

There are several established theories, frameworks, models and taxonomies that can be used to analyse barriers and facilitators of implementation outcomes. Relevant frameworks include CRIR (Consolidated Framework for Implementation Research), PRISM (Practical, Robust, Implementation Sustainability Model), RE-AIM (Reach Effectiveness Adoption Implementation Maintenance), Theoretical Domains Framework (TDF), and PARHiS (Promoting Action on Research Implementation in Health Services). Human-centred design

(HCD) is another framework which helps tailor innovations to fit end-users, narrowing the gap between efficacious interventions and large-scale impact.

Interested parties from non-academic institutions are highly recommended to collaborate with partners from academic institutions to prepare their implementation research proposals.

**Ref. Code**

- 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. Formative studies that can inform the design of policy dissemination strategies are also of interest.

**Health and Medical Research Fund**  
**Financial Report for the year ended 31 March 2022**

	HK\$	HK\$
<b>Cash balance as at 31.3.2021</b>		<b>1,490,221,151.10</b>
Grants paid for the period from 1.4.2021 to 31.3.2022		(279,122,109.06)
<u>Former RFCID</u> Commissioned project grants	(39,629.13)	
	(39,629.13)	
<u>HMRF</u> Commissioned project grants	(134,970,407.69)	
Investigator-initiated project grants	(137,914,411.00)	
Research Fellowship Scheme	(2,000,855.44)	
Health Care and Promotion Scheme	(556,348.90)	
	(275,442,023.03)	
Direct operation costs paid	(3,640,456.90)	
	(3,640,456.90)	
Increase in commitment		1,308,000,000.00
<b>Cash balance as at 31.3.2022</b>		<b>2,519,099,042.04</b>
Less:		(1,321,278,696.30)
<u>HMRF</u> Fund committed but not yet paid:		
Commissioned project grants	(655,879,197.43)	
Investigator-initiated project grants	(626,238,411.68)	
Research Fellowship Scheme	(24,048,996.94)	
Health Care and Promotion Scheme	(15,112,090.25)	
	(1,321,278,696.30)	
<b>Uncommitted balance as at 31.3.2022</b>		<b>1,197,820,345.74</b>

**HEALTH CARE AND PROMOTION SCHEME  
INDEPENDENT AUDITOR'S REPORT AND AUDITED ACCOUNTS  
FOR THE YEAR ENDED 31 MARCH 2022**





**INDEPENDENT AUDITOR'S REPORT  
TO THE RESEARCH COUNCIL (THE "COUNCIL")**

**Opinion**

*What we have audited*

The accounts of the Health Care and Promotion Scheme ("HCPS") funded by the Hong Kong Special Administrative Region ("HKSAR") Government, which are set out on pages 4 to 8, comprise:

- the balance sheet as at 31 March 2022;
- the statement of income and expenditure for the year then ended;
- the statement of changes in total fund for the year then ended; and
- the notes to the accounts of HCPS, which include principal accounting policies and other explanatory information.

*Our opinion*

In our opinion, the accounts of HCPS for the year ended 31 March 2022 are properly prepared, in all material respects, in accordance with the accounting policies set out in Note 2 to the accounts of HCPS.

**Basis for Opinion**

We conducted our audit in accordance with Hong Kong Standards on Auditing ("HKASAs") issued by the Hong Kong Institute of Certified Public Accountants ("HKICPA"). Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Accounts of HCPS section of our report.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

*Independence*

We are independent of HCPS in accordance with the HKICPA's Code of Ethics for Professional Accountants ("the Code"), and we have fulfilled our other ethical responsibilities in accordance with the Code.

**Emphasis of Matter – Basis of Accounting and Restriction on Distribution and Use**

We draw attention to Note 2 to the accounts of HCPS, which describes the basis of accounting. Our report is intended solely for the Council or other related parties of the HKSAR Government (if necessary), and should not be distributed to or used by any other parties for any purpose. Our opinion is not modified in respect of this matter.

**INDEPENDENT AUDITOR'S REPORT  
TO THE RESEARCH COUNCIL (THE "COUNCIL") (CONTINUED)**

**Responsibilities of the Council for the Accounts of HCPS**

The Council is responsible for the preparation of the accounts of HCPS in accordance with the accounting policies set out in Note 2 to the accounts of HCPS, and for such internal control as the Council determines is necessary to enable the preparation of the accounts of HCPS that is free from material misstatement, whether due to fraud or error.

In preparing the accounts of HCPS, the Council is responsible for assessing HCPS's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless there are events or conditions that have caused or may cause the Council to cease HCPS to continue as a going concern.

**Auditor's Responsibilities for the Audit of the Accounts of HCPS**

Our objectives are to obtain reasonable assurance about whether the accounts of HCPS as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. We report our opinion solely to you, as a body, in accordance with our agreed terms of engagement, and for no other purpose. We do not assume responsibility towards or accept liability to any other person for the contents of this report. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with HKSAAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the accounts of HCPS.

As part of an audit in accordance with HKSAAs, we exercise professional judgment and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the accounts of HCPS, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the Council.



**INDEPENDENT AUDITOR'S REPORT  
TO THE RESEARCH COUNCIL (THE "COUNCIL") (CONTINUED)**

**Auditor's Responsibilities for the Audit of the Accounts of HCPS (Continued)**

- Conclude on the appropriateness of the Council's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on HCPS's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the accounts of HCPS or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause HCPS to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the accounts, including the disclosures, and whether the accounts represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with the Council regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

A handwritten signature in blue ink, appearing to read 'PricewaterhouseCoopers', is written over a large, stylized blue circular mark.

**PricewaterhouseCoopers**  
Certified Public Accountants

Hong Kong, 13 October 2022

## HEALTH CARE AND PROMOTION SCHEME

### BALANCE SHEET

	At 31 March 2022 HK\$	At 31 March 2021 HK\$
<b>Current Assets</b>		
Interest receivable	61	102
Cash and cash equivalents	1,937,705	5,361,878
	<hr/>	<hr/>
<b>Total Assets</b>	<b>1,937,766</b>	<b>5,361,980</b>
	<hr/> <hr/>	<hr/> <hr/>
<b>Fund</b>		
Accumulated fund	1,932,766	2,910,331
	<hr/>	<hr/>
<b>Total Fund</b>	<b>1,932,766</b>	<b>2,910,331</b>
	<hr/>	<hr/>
<b>Current Liability</b>		
Accounts payable	5,000	2,451,649
	<hr/>	<hr/>
<b>Total Liability</b>	<b>5,000</b>	<b>2,451,649</b>
	<hr/>	<hr/>
<b>Total Fund and Total Liability</b>	<b>1,937,766</b>	<b>5,361,980</b>
	<hr/> <hr/>	<hr/> <hr/>



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**Dr Anne FUNG Yu-kei**  
Secretary of Research Council

The notes on pages 7 to 8 are an integral part of the accounts.

## HEALTH CARE AND PROMOTION SCHEME

### STATEMENT OF INCOME AND EXPENDITURE

	For the year ended 31 March 2022 HK\$	For the year ended 31 March 2021 HK\$
<b>Income</b>		
Interest income	4,744	25,345
<b>Expenditure</b>		
Grants	(982,309)	(4,023,983)
<b>Deficit for the year</b>	<u>(977,565)</u>	<u>(3,998,638)</u>

HCPS had no components of comprehensive income other than “deficit for the year” in the year presented. Accordingly, no separate statement of comprehensive income is presented as HCPS’s “total comprehensive income” was the same as the “deficit for the year”.

The notes on pages 7 to 8 are an integral part of the accounts.

## HEALTH CARE AND PROMOTION SCHEME

### STATEMENT OF CHANGES IN TOTAL FUND

	Accumulated fund HK\$
<b>At 1 April 2020</b>	6,908,969
Deficit for the year	(3,998,638)
<b>At 31 March 2021</b>	<u>2,910,331</u>
Deficit for the year	(977,565)
<b>At 31 March 2022</b>	<u><u>1,932,766</u></u>

The notes on pages 7 to 8 are an integral part of the accounts.

## HEALTH CARE AND PROMOTION SCHEME

### NOTES TO THE ACCOUNTS

#### 1. General information

The Health Care and Promotion Scheme (“HCPS”), formerly known as Health Care and Promotion Fund, was established by the Hong Kong Government in 1995 with an injection of HK\$80 million approved by the Finance Committee of the Legislative Council for the purpose of increasing health promotion and disease prevention. The objective of HCPS is to provide funding support to health promotion projects that empower people to adopt healthier lifestyles by enhancing awareness, changing adverse health behaviours or creating a conducive environment that supports good health practices.

As from 28 April 2017, HCPS has been incorporated into the Health and Medical Research Fund (the “Fund”). The Research Council (“the Council”) chaired by the Secretary for Health supervises the management and investment of the Fund. The Research Fund Secretariat is housed in the Research Office of the Health Bureau (“HHB”), which is responsible for providing administrative and logistic support to HCPS. The Hospital Authority acts as an agent for providing accounting services to HCPS which includes keeping the accounts of HCPS and investing the capital money not required immediately in accordance with the guidelines approved by the Council.

#### 2. Principal accounting policies

##### (a) Basis of preparation

The principal accounting policies adopted in the preparation of the accounts of HCPS are set out below. The accounts have been prepared on a going concern and accrual bases, and under the historical cost convention.

##### (b) Revenue recognition

Revenue is recognised when it is probable that the economic benefits will flow to HCPS and when the revenue can be measured reliably.

Interest income from bank deposits is recognised on a time proportion basis using the effective interest method.

##### (c) Expenditure

Grants are recognised on an accrual basis upon receiving of claims from grant applicants for reimbursements of expenses.

Audit fee of the accounts of HCPS is borne by the HHB.

##### (d) Cash and cash equivalents

Cash and cash equivalents comprise cash at bank and demand deposits, and other short-term highly liquid investments that are readily convertible to a known amount of cash and are subject to an insignificant risk of changes in value, having been within three months of maturity when acquired.

## HEALTH CARE AND PROMOTION SCHEME

### NOTES TO THE ACCOUNTS

#### **2. Principal accounting policies (Continued)**

##### **(e) Accounts payable**

Accounts payable are recognised initially at fair value and subsequently measured at amortised cost using the effective interest method, unless the effect of discounting would be insignificant, in which case they are stated at cost.

#### **3. Approval of the accounts of HCPS**

The accounts of HCPS were approved by the Council on 13 October 2022.