Legislative Council Panel on Health Services c/o Clerk to Legislative Council Panel on Health Services Legislative Council Secretariat 3/F, Citibank Tower 3 Garden Road Central, Hong Kong

Progress Report of Health and Health Services Research Fund (HHSRF) Research Fund for the Control of Infectious Diseases (RFCID)

The attached paper to the Legislative Council Panel on Health Services updates Members on the progress and outcomes of the *Health and Health Services Research Fund* (HHSRF) and the *Research Fund for the Control of Infectious Diseases* (RFCID) administered by the Food and Health Bureau (FHB).

As set out in FCR(2003-04)41, FHB will report to the Legislative Council in respect of the allocation of funds under the commitment to support local research projects under the RFCID. The FHB takes this opportunity to update Members on similar allocation under the HHSRF. This paper is provided for Members' information.

Since 2003, a total of 1,815 grant applications for individual research projects have been submitted to the two funds of which 495 projects worth \$311.41 million have been supported. Additional research worth \$191.38 million has been directly commissioned to address specific research needs, fill gaps in scientific knowledge and respond to public health needs and threats identified by the FHB.

This significant investment has resulted in benefits to the local research infrastructure and has directly impacted on the health of the population of Hong Kong through improvements in health care practices and health policy.

LEGISLATIVE COUNCIL PANEL ON HEALTH SERVICES

Progress Report of Health and Health Services Research Fund (HHSRF) Research Fund for the Control of Infectious Diseases (RFCID)

Purpose

This paper updates Members on the progress and outcomes of the *Health* and *Health Services Research Fund* (HHSRF) and the *Research Fund for the Control* of *Infectious Diseases* (RFCID) administered by the Food and Health Bureau (FHB).

Background

Health and Health Services Research Fund

2. HHSRF¹ was established in 2003 for funding health and health services research in support of policy formulation and service development. It aims to maximise population health, improve the quality of life, and enhance the standard and cost-effectiveness of the health system through the generation of new knowledge in areas of human health and health services. HHSRF has a total capital commitment of \$226 million approved by the Finance Committee (comprising an initial commitment of \$10 million in 2002, an injection of \$16 million in February 2005, a second injection of \$50 million in June 2007 and a further injection of \$150 million in February 2010).

Research Fund for the Control of Infectious Diseases

3. The RFCID was established after the outbreak of Severe Acute Respiratory Syndrome (SARS) in 2003 to encourage, facilitate and support research on the prevention, treatment and control of infectious diseases, in particular emerging infectious diseases such as SARS and avian influenza (H5N1). It has a total capital commitment of \$450 million approved by the Finance Committee (initial commitment when the fund was established in July 2003).

Governance and Administration of Research Funds

4. The governance and administration of the HHSRF and RFCID under FHB are described in **Annex 1**.

Prior to the establishment of HHSRF in 2002, research projects on health services issues were funded under the Health Services Research Fund (HSRF) set up in 1993-94. The HSRF was subsequently replaced by the HHSRF, which has a new mode of operation and a more focused research agenda.

Up-to-Date Progress

5. The progress and status of the funds as at the end of June 2011 in terms of research projects supported are set out in the ensuing paragraphs.

Investigator-Initiated (Open Call) Projects

A new round of open applications for research grants under HHSRF and RFCID for investigator-initiated projects was invited in July 2010 based on the thematic priorities for the two funds described in **Annex 2** formulated on the basis of advice from relevant experts. A total of 166 and 133 applications were received respectively under HHSRF and RFCID, of which 51 and 56 applications with a total funding commitment of \$33.49 million and \$45.78 million were approved by the Research Council in May 2011. The cumulative positions of research projects funded by the two research funds are summarised in the tables below.

HHSRF investigator-initiated (open call) projects

HHSRF research area	No. projects	Approved	No. projects
	approved	amount (\$M)	completed
- Public health theme	57	32.21	28
- Health services theme	109	53.07	51
- Chinese medicine theme	27	17.67	11
Total	193. ²	102.95	90

RFCID investigator-initiated (open call) projects

RFCID research area	No. projects	Approved	No. projects
	approved	amount (\$M)	completed
- Aetiology, epidemiology,	53	34.02	37
surveillance and public health theme			
- Clinical and health services	33	20.61	21
research theme			
- Basic research theme	216	153.83	121
Total	302 ³	208.46	179

Commissioned Studies

7. In addition to the investigator-initiated projects, on the advice of relevant experts, FHB also commissioned research institutions in August 2010 to conduct studies in the specific areas of prevalence of common mental health problems in Hong Kong with a total funding of \$7.65 million. The cumulative positions of the commissioned studies funded by the two research funds are summarised in the tables

Including 51 grant applications (worth HK\$ \$33.49 million) approved at the 13th Research Council meeting (May 2011) and pending signing of contractual agreements.

Including 56 grant applications (worth HK\$ \$45.78 million) approved at the 13th Research Council meeting (May 2011) and pending signing of contractual agreements.

below. The various portfolios of commissioned studies supported by the HHSRF and RFCID are described in **Annex 3**.

HHSRF commissioned studies

Portfolio	No. research portfolios approved	Approved amount (\$M)	Status
Mental Health	1	7.65	Ongoing
Total	1	7.65	

RFCID commissioned studies

Portfolio	No. research portfolios approved	Approved amount (\$M)	Status
Phase I	4	93.2	2 completed, 2 ongoing
Phase 2	2	79.03	ongoing
Human Swine Influenza	1	11.5	ongoing
Total	7	183.73	

8. All approved research projects for the HHSRF and RFCID through the open call submissions and commissioning, with abstracts and the approved amounts, have been uploaded to the Secretariat's website for public access.

Evaluation of Output of Completed Studies

9. The impact of completed research projects is evaluated on a regular basis using a "payback framework" – an internationally recognised measure of health research activities. The payback framework allows a quantitative assessment to be made of the value for money invested in research funding. Including data from the most recent round of evaluation conducted in mid-2010, the impact of the research supported by HHSRF (and the former HSRF) and RFCID is summarised as follows:

- The majority (77.0 88.2%) of projects supported by HHSRF and RFCID reported publication of research findings. There were, on average, 4.88 publications per project generated. Evidence-based knowledge will help shape and direct healthcare policy.
- Up to one-third (33.6%) of the projects supported by HHSRF and RFCID reported impact on informing policy through production of new or revised treatment guidelines, treatment protocols, reference standards, and Cochrane reviews.⁴

Cochrane reviews are an internationally regarded source of evidence about the effectiveness of healthcare interventions.

- HHSRF and RFCID have been instrumental in building research capacity and infrastructure in Hong Kong. Work related to funded projects has enabled research staff to improve scientific and healthcare-related research skills and to gain promotion at their institutions. Career advancement of research team members was reported for 34.1%-60.0% of projects. Acquisition of higher qualifications was reported for 38.9%-73.0% of projects. These highly skilled talents form an important strategic research asset for Hong Kong.
- 10. In summary, the impact of research supported by the HHSRF and RFCID compares well with that found with other funding agencies with similar public health objectives, e.g. National Health Service (UK), National Health and Medical Research Council (Australia).

Examples of notable research studies supported by HHSRF and RFCID

11. Of the completed projects funded by HHSRF and RFCID, many have been useful in guiding health policy formulation and health services delivery. A few notable examples of completed projects contributing to health policies and practices are highlighted in **Annex 4**.

Advice sought

12. Members are invited to note this progress report.

Governance and Administration of Research Funds under the Food and Health Bureau

This note describes the governance and administration arrangements of the research funds under the Food and Health Bureau (FHB). The research funds are governed by the Research Council under FHB that makes executive decisions on fund policy and strategy and makes funding recommendations to FHB for allocation of research funds. The Research Council is underpinned by working committees, namely the Grant Review Boards (GRB) and the Referee Panel which provide independent two-tier peer review. Their work and the day-to-day administration of research funds are supported by the Research Fund Secretariat of the Research Office established under FHB.

Governance of Research Funds

Research Council

Role and Responsibility

2. The Research Council assumes responsibility for all aspects of the administration of the *Health and Health Services Research Fund* (HHSRF) and the *Research Fund for the Control of Infectious Diseases* (RFCID) and the allocation of funds for approved grants. The Research Council appoints members to the Grant Review Boards and the Referee Panel.

Composition

3. The Research Council is chaired by the Secretary for Food and Health (SFH) and comprises representatives from public institutes and bodies and members from the academic arena and private sector appointed by SFH. The term of service of appointed members is normally two years.

Terms of Reference

- 4. The terms of reference of the Research Council are
 - (a) Determine research agenda and funding control mechanism of the RFCID and HHSRF.
 - (b) Approve procedures for inviting, and criteria for vetting research applications.
 - (c) Approve standard terms and conditions for grant-holders.
 - (d) Approve funding allocation after peer review process.

- (e) Approve processes for the ongoing monitoring and evaluation of approved research projects.
- (f) Establish Grant Review Board to carry out the technical work of the Research Council.
- (g) Disseminate key findings of funded projects.

Grant Review Boards

Role and Responsibility

5. The Grant Review Boards act as the scientific advisors to the Research Council and make recommendations with regard to initial funding, requests for additional funds and assesses the outcomes of funded research. It is through the Grant Review Boards that all applications as well as final and dissemination reports for funded grants are subject to peer review for their scientific merit and compliance with the funding principle and ethical considerations.

Composition

6. Chairmen and Members of the Grant Review Boards are appointed by the Research Council and are expected to be academics and other local or overseas experts versed in advanced health and medical research. Potential members are identified through established networks, publications, scientific roles and committee meetings or collaborative work. Separate Grant Review Boards are established under the two Research Funds.

Terms of Reference

- 7. The terms of reference of the Grant Review Boards are
 - (a) Set policies and procedures for the grant submission and review process, and the assessment and dissemination of final reports.
 - (b) Distribute guidelines for the formulation of research proposals, grant applications, and the submission of interim, final and dissemination reports.
 - (c) Review and assess applications and recommend projects for funding.
 - (d) Review and assess final, interim and dissemination reports.
 - (e) Promote the development of research in the areas of health, health services and controlling infectious diseases in the wider community.
 - (f) Monitor the progress of approved projects.
 - (g) Monitor the financial performance of approved projects.

Referee Panel

Role and Responsibility

8. Individual members of the Referee Panel, according to their specific area of expertise, are selected to review grant applications for funding on the basis of scientific merit and to assess the outcomes of funded projects.

Composition

9. Local and overseas referees are identified through a variety of sources: recommendation of the Grant Review Board members, bibliographic sources such as MedLine, the reference section of the grant proposal or through internet contacts particularly in evidence-based health and health services literature.

Terms of Reference

- 10. The terms of reference of the Referee Panel are
 - (a) Assess the scientific merit of submitted proposals in terms of originality, scientific content, design and methods, statistical analysis and outcome measures.
 - (b) Assess the relevance of the proposal to the thematic priorities and the applicability of the research to the local context.
 - (c) Assess the 'value for money' as presented in the final and dissemination reports.

Administration of Research Funds

Research Fund Secretariat

11. The FHB houses a Research Office which serves as the Research Fund Secretariat to the HHSRF and RFCID. The secretariat provides administrative and technical support to fund administration, including initial screening of applications, liaison with applicants, assignment of referees, preparation of documents for Research Council and GRB meetings, and input on grant management and operation.

Funding Opportunities

12. The HHSRF and RFCID support investigator-initiated and commissioned research. Investigator-initiated projects are those that encourage the development of innovations from individual researchers. Commissioned projects include those that address specific research needs, fill gaps in scientific knowledge and respond to public health needs and threats identified by the FHB. Commissioned research is by special invitation only.

Eligibility

Applications for funding support are open to researchers and research institutes from the public, private and academic sectors in Hong Kong. Eligible applicants must have a track record of conducting relevant research in the territory. Researchers collaborating with Mainland China and overseas institutions are encouraged to apply to the fund. It is anticipated that the research efforts would produce scientific advances and best practices as a result of multi-disciplinary cooperation and collaboration. To be eligible for a grant, the proposed research project must demonstrate high scientific merit and local applicability.

Funding Mechanism and Peer Review

- All eligible grant applications undergo stringent two-tier peer review to ensure that funded projects are of appropriate scientific design and high scientific merit. The first tier of peer review is performed by a Referee Panel. The second tier is conducted by the GRB. Together they assess the scientific merit of the research projects, such as originality, significance of the research questions, quality of scientific content, credibility of design and methods and applicability to the local context. Other objective assessment criteria including research ethics, justification of budget, and track record of grant applicant are also considered. The GRB makes funding recommendations for consideration and endorsement by the Research Council.
- 15. The administering institution and the principal applicant of successful grant applications are required to sign a contractual agreement, covering the terms and conditions under which the grant is offered. Principal applicants are required to report the progress of the projects and the financial position at regular intervals for assessment by the Research Fund Secretariat. Payment of grants is tied to satisfactory progress and submission of acceptable deliverables as set out in the contractual agreement.
- 16. The principal applicants of completed projects are required to submit a final and dissemination report and independent audited account or certified financial statement not more than six months after project completion.

Mechanism to Prevent Duplicate Funding

17. The two-tiered peer review process not only provides comments on the relevance by the experts, but also advice on any duplication with on-going projects based on their most updated knowledge of research projects. Duplication will be rejected. In addition, and in line with prevailing international practice, all grant applicants are required to declare whether their research proposals are also being considered by other funding agencies. The secretariat will conduct cross-checking with relevant funding organisations including RGC, HHSRF, RFCID, AIDS Trust Fund, Innovation and Technology Fund, Quality Education Fund, etc. The aim is to ensure that no single project will be funded twice.

Monitoring of Funded Projects

18. All successful applicants and host institutions are required to keep an audit trail of budget spent and submit periodic progress reports as well as a final report of the project. The results of their research are also disseminated in media or channels determined by the Research Council.

Evaluation of Impact

19. All approved projects are required to participate in a post-completion assessment conducted by the secretariat to evaluate the outputs and outcomes of the approved research. The criteria for evaluation are determined by the secretariat and include benefits to the health care system in terms of knowledge production, use of research findings in health system policy and decision making, application of the research findings through changed behaviour of health professionals, and public health and health service / economic benefits.

Dissemination of Research Results

20. For completed projects graded as satisfactory by the Grant Review Board, research reports will be uploaded to the secretariat's website at http://www.fhb.gov.hk/grants for public access. Dissemination reports are further distributed to relevant health care professionals, previously in the form of loose-leaf pamphlets, and since April 2006 as supplements to the *Hong Kong Medical Journal*. To date, about 450 dissemination reports have been published. In addition, regular grant skills training workshops are conducted to facilitate potential applicant's preparation of applying for research funds. Research symposia have been organised to recognise outstanding studies, that have set a benchmark for good research and assisted the formulation of health policies, and to provide a platform of sharing with international and local researchers.

Thematic Priorities of the HHSRF and RFCID in 2010

I. Health and Health Services Research Fund (HHSRF)

The HHSRF operates a focused research agenda in which thematic priorities are developed in partnership with stakeholders (e.g. Department of Health, Hospital Authority) to guide the direction of research and decision on funds allocation under three broad research areas, namely of public health, health services and Chinese medicine.

A. Public health theme

Smoking

- Identification of factors and evaluation of methods to prevent the uptake of smoking by specific target groups
- Effectiveness of methods to encourage smokers to cease smoking
- Evaluation of tobacco control policies, in particular pre- and post-intervention studies

Mental Health

- Effectiveness of treatment models, in particular those in a community setting
- Health needs assessment of the mentally ill and ex-mentally ill

Injury and poisoning

- Identification of risk factors for injury and poisoning
- Effectiveness and efficacy of methods to prevent injury and poisoning

B. Health services theme

Enhanced primary care

- Multidisciplinary approaches in primary care health service models
- Effectiveness of enhanced primary care programmes

Reducing avoidable hospitalisation

- Identification of ambulatory care sensitive conditions
- Community partnership models
- Effectiveness of programmes to reduce avoidable hospitalization

Chronic disease prevention and management

- Epidemiology of chronic disease
- Identification of factors that influence health behaviour
- Service delivery model for chronic disease management
- Effectiveness of health promotion activities and chronic disease management programmes

C. Chinese medicine theme

- Establishing safety profile of certain Chinese herbs and medicines
- Interactions between Chinese medicines and Western medicines
- Integrated approaches in combining Chinese and Western models of care
- Knowledge, attitude and practice or use of Chinese medicine in the community

II. Research Fund for the Control of Infectious Diseases (RFCID)

The RFCID operates a focused research agenda in which thematic priorities are developed in partnership with stakeholders (e.g. Centre for Health Protection) to guide the direction of research and decision on funds allocation. The RFCID supports research on i) aetiology, epidemiology, surveillance and public health; ii) basic research; and iii) clinical and health services research.

A. Viral respiratory pathogens (including influenza)

- Epidemiology (including mathematical modelling)
- Diagnosis: rapid diagnostic tests
- Novel control approaches
- Economic burden of disease
- Role of Chinese medicine in treatment/prevention of infectious disease

B. Technology platforms for infectious disease

- Application of modern technology to the control, treatment and prevention of infectious disease
- Rapid diagnosis
- Molecular epidemiology
- Genome sequencing
- Improved physical-chemical methods
- Technology substitution/supplement for traditional pathogen typing methods

C. Zoonotic diseases

- Characterise new pathogens in animals that can infect humans
- Risk factors that contribute to the emergence of zoonotic disease
- Development and evaluation of diagnostic tests for zoonotic disease
- Surveillance methods for the emergence of zoonotic disease
- Modelling to predict the risk of zoonotic disease

Annex 3

Research Portfolios of HHSRF/RFCID Commissioned Studies

HHSRF commissioned studies

Research Portfolio	Institution (duration)	Amount of funding (\$M)	Status
Hong Kong Mental Morbidity Survey	CUHK	7.65	Ongoing
2010	(2010-2013)		
Total		7.65	

RFCID commissioned studies

Research Portfolios	Institution (duration)	Amount of funding (\$M)	Status
Basic laboratory, public health and epidemiology research in emerging infectious diseases	CUHK (2004-2009)	25	Completed
Basic laboratory, public health and epidemiology research in emerging infectious diseases	HKU (2004-2009)	30	Completed
Nosocomial infection and long-term follow-up of SARS patients	HA Consortium (2004-present)	8.2	Ongoing
 Cost-effectiveness of primary prevention of infections (potentially) covered by the immunisation programme Surveillance, epidemiology and public health control of infections with a regional (cross-border) significance Prevention of spread of healthcare associated infections in community settings 	Centre for Health Protection (2005- present)	30	Ongoing

Research Portfolios	Institution (duration)	Amount of funding (\$M)	Status
Human swine influenza	CUHK and HKU (2009-2011)	11.5	Ongoing
 Emerging and re-emerging infectious diseases Antimicrobial resistance & healthcare-acquired infections Population-level research Pathogen genomics 	CUHK (2009-2014)	31.53	Ongoing
 Bacterial, fungal and antimicrobial resistant diseases Enhancing biosafety level 3 capacity for dealing with emerging viral infections Epidemiology and control of infectious diseases 	HKU (2009-2014)	47.5	Ongoing
Total:	1	183.73	

Examples of HHSRF and RFCID Projects Informing Policy Formulation and Health Practice

Health and Health Services Research Fund

Enhancement of Primary Care

Primary care is an important component of the healthcare system. It produces better health outcomes at lower costs by providing patients with a comprehensive spectrum of care, both preventive and curative, continuously over a period of time and coordinates the care that patients receive. Over the years, HHSRF has supported a number of primary care research projects exploring the effectiveness of the interdisciplinary team and patient empowerment which are key concepts on which the primary care conceptual model is built upon.

- 2. A study evaluating the effectiveness of different models of health care delivery in the primary care setting demonstrated the advanced practice nurse clinic as a suitable model of care for monitoring patients with stable hypertension and diabetes mellitus in the community. This service model has since been extended to several sites within the Hospital Authority. Research findings would positively impact the Task Force on Primary Care Delivery Models and the development of an integrated primary care model for the management of common chronic diseases. These research findings have assisted the Government in formulating primary health care reform initiatives.
- Another study evaluating an intervention designed to empower women to enhance their safety behaviour and improve their problem-solving and decision-making was funded. Evaluation in the local settings was especially useful as interventions should be culturally sensitive in order to address the different needs depending on cultural background. Empowerment interventions enabled women to regain control and make decisions in the aftermath of traumatic experiences and the research findings have informed the drafting of the Technical Guidelines on Health Sector Response to Violence against Women organised by the Department of Reproductive Health and Research, World Health Organization.

Health Care for an Ageing Population

4. The local population is ageing rapidly. By 2033, it is estimated that 27% of the Hong Kong citizens will be 65 or above. Health for older adults therefore constitutes one of the major research themes locally. Three completed projects have addressed issues related to elderly care. These include a case management model of interdisciplinary care to improve the quality of life of older people with early dementia and to reduce their caregiver burden. The study found that case management and home visits reduced depressive symptoms in community dwelling older people with mild dementia, encouraged family caregivers to seek outside help, e.g. paid attendants and day care, and improved the psychological health of family caregivers. As the dementia day care system develops, this case management model may have a bigger impact and such models may help prevent or delay institutionalisation in the longer term.

Mental Health Service Delivery

5. Mental disorders cause a significant healthcare burden in Hong Kong and studies on mental health service delivery models are useful in assisting formulation of an integrated mental health policy by the Working Group on Mental Health Services. The results of a project evaluating an intervention programme for psychosis showed that both hospitalisation rate and duration were significantly decreased, functional outcomes enhanced, and risk behaviours reduced with early intervention characterised by case management and a specialised multidisciplinary team. The evidence generated has contributed to the deliberations of the Working Group on Mental Health Services and the planning of services by the Hospital Authority.

Smoking and Health

6. Breaking the chemical and psychological dependence on nicotine is an essential step in reducing smoking. HHSRF supported the first ever randomised controlled trial in Hong Kong designed to examine the effectiveness of smoking reduction counselling combined with free nicotine replacement therapy on smoking cessation in Chinese smokers who were not willing to quit smoking but who intended to reduce cigarette consumption. The smoking reduction intervention was effective in helping unmotivated smokers quit or reduce their daily cigarette consumption by 50% or more. Offering assistance to reduce smoking can attract smokers who are not willing or ready to quit. The results are important for planning smoking cessation services in Hong Kong.

Health Promotion and Exercise

7. HHSRF has supported a number of grants supporting research into lifestyle risk factors, including exercise. Physical activity has been one of the priority research areas as regular physical exercise has been proven to help weight control, reduce cardiovascular and diabetic risks, and improve mental health status. Among the completed projects, it was found that buddy systems involving positive reinforcement of physical activity by groups of two or more subjects, as well as the use of pedometers to inform participants of their daily activity level are both useful approaches significantly increasing the mean physical activity and fitness levels of elderly. Such motivational aids may be readily adopted to increase physical activity at manageable levels in older communities. Low intensity activity such as Tai Chi was also proven to produce significant health improvements which are helpful in informing health promotion policy.

Research Fund for the Control of Infectious Diseases

Basic laboratory studies of emerging and re-emerging pathogens

8. New knowledge has been generated on the aetiology and pathogenesis of a wide range of emerging and re-emerging pathogens, including influenza A, various coronaviruses, *Mycobacterium tuberculosis* – the organism responsible for tuberculosis, *Helicobacter pylori* – bacteria known to cause duodenal/gastric ulcers and stomach cancer, Epstein-Barr virus – responsible for many cases of nasopharyngeal cancer, hepatitis B and C viruses – responsible for liver cancer, and human papillomavirus (HPV) – the leading cause of cervical cancer, among many others. The basic knowledge generated from these studies allows insight into the mechanism of how these pathogens cause disease and allows potential treatments and potential vaccines to be developed and tested.

Transmission modelling of emerging infectious diseases

9. The results of the investigator-initiated and commissioned studies have directly informed (mostly through the Scientific Committees and the Board of Scientific Advisors of the Centre for Health Protection (CHP)) decision making at high levels on a variety of important topics, including but not limited to Japanese encephalitis surveillance and control, pandemic and inter-pandemic preparedness planning for both human and avian influenza

outbreaks, tuberculosis surveillance and control, preparedness for SARS re-emergence and post-outbreak analysis. In addition, project team members helped Department of Health (DH) initiate the CHP's internal disease modelling unit and have provided ongoing support to them. Investigators supported by RFCID funds have continued to work with CHP, Hospital Authority (HA) and FHB on the Communicable Disease Information System (CDIS) platform as part of the overall eHealth initiative of the Government.

Infection control policy and practice

- 10. The results obtained from several projects have already affected international policy. For example, work on the role SARS treatment and infectious aerosols have provided valuable data on the treatment and infection control aspects to the World Health Organization (WHO), resulting in 3 papers produced in these studies being included as references in the WHO clinical treatment guideline on human H5N1 infection. This work has also guided infection control policies and practices at public and private hospitals resulting in better ward settings to prevent nosocomial outbreaks of respiratory infectious diseases (e.g. increase distance between beds, set up washing or changing facilities for staff). In addition, better administrative arrangements during nosocomial outbreaks of respiratory infectious diseases were implemented (e.g. prevent staff working while experiencing symptoms, use protective equipment for high-risk procedures).
- 11. Several studies benefited from their access to hospitals and patients and influenced health practice in several key areas including the development of novel local exhaust devices, evaluation of nursing practices, and the establishment of a clinical protocol for antiviral therapy (for SARS). The results of these projects were forwarded to the HA's Central Committee on Infectious Diseases for setting standards and policy enhancement. The research findings led to the screening of SARS survivors for avascular necrosis and the introduction of standardised MRI protocols for SARS survivors on follow-up at all HA hospitals and clinics. All chest clinics in Hong Kong now use exhaust-ventilated booths to confine respiratory pathogens during aerosol-generating procedures such as inhalation therapy, etc.

Policy on vaccine preventable diseases

12. Several studies have generated useful information relevant to policy formulation on vaccination. For example, the Administration has decided to introduce pneumococcal vaccine into the Childhood Immunisation Programme as recommended by the Scientific Committee on Vaccine The SCVPD recommendation was Preventable Diseases (SCVPD). developed after an evaluation of the impacts of vaccinating all infants with the pneumococcal vaccine based on updated scientific evidence including research supported by the RFCID. These studies showed the benefits of introducing universal pneumococcal vaccine outweigh the costs of the Other studies under the RFCID have provided valuable information on the genetic signatures of HIV isolates in Hong Kong and neighbouring regions, the local epidemiology of human papillomavirus, and the value of new generation diagnostic assays for tuberculosis in certain high-risk populations.