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Provisional Functional Classification System for Domestic Health Expenditures 1989/90 to 1996/97, of Hong Kong SAR, People's Republic of China

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Institute of Policy Studies of Sri Lanka
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Contents

Note on preparation

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OVERVIEW

This document provides a set of classifications for use in Hong Kong DHA, developed through a process of review of international practice and deliberation by task groups appointed by the Hong Kong SAR Government Health and Welfare Bureau. Included is a review of current definitions and classifications used in NHA work by the Organisation of Economic Co-operation and Development (OECD) and four OECD member countries, USA, UK, Canada and Japan. The four countries were selected on the basis of feedback received from the DHA Team appointed by the Hong Kong government. On the basis of these approaches, a draft working paper was produced with recommendations as to options for the framework to be used in Hong Kong's DHA and distributed among members of the DHA team. The paper was revised to incorporate comments made by the DHA team. This current paper is based on a previous paper by the same authors, *Review of international NHA classifications and definitions for preparation of HK DHA*, (March 1998).

Preparation of this document involved a systematic review of the current definitions used by the four countries concerned, the definitions used by the OECD secretariat in preparing its 1998 estimates of health spending in OECD member countries (to be published later in 1998, and referred to herein as OECD 1998), and a draft proposal for collecting international health statistics under preparation by the OECD secretariat in October 1997 (unpublished document made available to Institute of Policy Studies by OECD, referred to herein as OECD Proposal).

OECD 1998 is the most recent version of the set of definitions used by OECD in preparing its annual estimates of health spending in the OECD. It has been developed over several years in an ongoing attempt to standardise the available data reported by member countries, and therefore reflects substantially the structure of the health expenditure reporting systems in individual countries, in particular those of USA.

OECD Proposal (October,1997 version) is a new set of classifications and frameworks prepared by the OECD secretariat for measuring health expenditures in a manner consistent with other UN statistical reporting systems and the existing OECD database. It differs from OECD 1998 in that it proposes a different breakdown or classification of health expenditures, and in that it provides much more detailed sets of definitions for the various types of expenditures. Its functional classification of health expenditures, the ICHE (International Classification of Health Expenditures), is presented in four levels of disaggregation, each level of which is labelled according to a system of 1-4 digit codes. OECD plans to test this new approach during the next two years, and based on resulting modifications and feedback from non-OECD countries and experts to propose a revised version of the Proposal to Eurostat and other UN agencies as a global standard for health expenditure estimation. We have included the OECD Proposal in our review, as it is likely that it will lead eventually to a new international system of health expenditures estimation. However, the OECD Proposal is yet to be ratified by the OECD itself, and currently contains several major defects, which we believe will force major modifications. For this reason, we have focused on those elements in the OECD Proposal which are most useful and likely to stand the test of time.

FUNCTIONAL CLASSIFICATION OF HEALTH EXPENDITURES

OECD Proposal's functional classification makes a basic distinction between core functions of health care and other health related functions. This same distinction is used in Hong Kong DHA, as it separates those expenditures for which there is universal agreement about their classification as health, from those for which there is considerable national variation and dispute. OECD Proposal then disaggregates core functions into four types at the first level (or one digit level of the ICHE):

1. Personal medical services
2. Distribution of medical goods
3. Collective health services
4. Health programme administration and health insurance

The draft functional classification used in Hong Kong DHA uses this same classification. At the next level of disaggregation, Hong Kong DHA deviates from that presented by the OECD Proposal (2 digit level in ICHE), and instead follow the general practice used in national NHA work by USA and that used in OECD 1998. The OECD Proposal presents a substantially different functional classification at its two digit level, which does not differentiate between inpatient and outpatient expenditures, and instead focuses on the clinical purpose of patient treatment expenditures. In our judgement, this new classification is unlikely to survive subsequent revisions, as most policy makers are actually interested firstly in knowing the inpatient/outpatient breakdown, and since most countries do not have the data to allow estimation of the categories proposed in OECD Proposal.

Table 1 gives the functional classification for health expenditures used in Hong Kong's DHA. It includes the codes proposed for Hong Kong and the corresponding International Classification for Health Expenditures (ICHE) codes. ICHE is a standard developed by the proposed OECD manual. The remaining part of the document concentrates on presenting the definitions used by national agencies when reporting national statistics on health expenditures, or in their national health accounts, as well as those in use or proposed currently by OECD.

The format of this document is as follows. The definitions used in Hong Kong DHA for each item in the classification system are presented first. This is followed by a discussion of the relevant OECD and national definitions for those items. In many cases the only OECD definitions are those from OECD 1998. The definitions given for individual countries are the ones used in reporting national health expenditures through the OECD secretariat, where they deviate from the OECD 1998 definitions.

This document is a draft, and should be treated as a work in progress.

Table 1: Functional classification of health expenditures in Hong Kong

FUNCTION	CODE	ICHE CODE
Core functions of health care		HA.1-4
1. Personal health services	F1	HA.1
• Hospital services	F1.1	HA.1.1.4
— Acute hospital care	F1.1.1	
— Psychiatric hospital care	F1.1.2	
— Extended care	F1.1.3	
• Ambulatory services	F1.2	HA.1.1
— Registered medical practitioners	F1.2.1	
– General Practitioners	F1.2.1.1	
– Medical specialists	F1.2.1.2	
– Other registered medical practitioners	F1.2.1.3	
— Other registered medical care professionals	F1.2.2	
— TCM providers	F1.2.3	
— Unregistered medical care professionals	F1.2.4	
— Laboratory services	F1.2.5	HA.1.1.2
— Diagnostic services	F1.2.6	HA.1.1.3
— Dental services	F1.2.7	
— Psychological and socio-psychological services	F1.2.8	HA.1.1.7
• Residential nursing care/long term care for frail elderly people	F1.3	HA.1.1.5 - 6
• Home care	F1.4	
• Patient transport and emergency rescue	F1.5	HA.1.3
2. Distribution of medical goods	F2	HA.2.
• Pharmaceuticals	F2.1	HA.2.1.1-2
• Therapeutic appliances and medical equipment	F2.2	HA.2.2.1-9
3. Collective health services	F3	HA.3
• Health promotion and disease prevention	F3.1	HA.3.1
— Maternal and child health	F3.1.1	HA3.1.1
— Family planning	F3.1.2	HA3.1.1
— Disease prevention	F3.1.3	
– Prevention of communicable diseases	F3.1.3.1	HA.3.1.2
– Prevention of non-communicable diseases	F3.1.3.2	HA.3.1.4
— Health promotion	F3.1.4	HA.3.1.3
— School health services	F3.1.5	HA.3.1.5
— Food hygiene control	F3.1.6	HA.3.1.6
— Control of drinking water, environmental surveillance	F3.1.7	HA.3.1.7
• Other collective health services	F3.2	HA.3.2
— Occupational health care	F3.2.1	HA.3.2.1
4. Health programme administration and health insurance	F4	HA.4
— Health programme administration	F4.1	HA.4.1
— Administration of health insurance	F4.2	HA.4.2
Health related functions		HA.5 – 9
1. Investment into medical facilities	F5	HA.5
2. Education and training of health personnel	F6	HA.6
3. Research and development in health	F7	HA.7
4. Environmental health	F8	HA.8
5. Administration and provision of cash-benefits	F9	HA.9

CORE FUNCTIONS OF MEDICAL CARE

F1 Personal health services

➢ DEFINITION FOR HONG KONG DHA

Personal health services are defined as those which can be directly allocated to individuals, as distinct from services provided to society at large.

F1.1 Hospital services

➢ DEFINITION FOR HONG KONG DHA

1) Hospital services (F1.1) consist of all expenditures by hospitals, for in-patient services. This covers all services provided by hospitals to patients, including room and board charges, accident and emergency services, ancillary charges such as operating room fees, the services of resident physicians, in-patient pharmacy charges, , and any other services billed by private hospitals, or any such services paid for from the hospital's own budget in the case of public sector hospitals. Transportation expenses for patient transport paid for separately by other agencies are excluded

2)

3) Day inpatients (generally referred as non A&E patients discharged within the same calendar date) are included as part of hospital inpatient services. Geriatric and psychiatric day hospital services are however excluded, and counted as Ambulatory care services.

4)

F1.1.1 Total expenditure on acute care hospitals

F1.1.2 Total expenditure on psychiatric hospitals

F1.1.3 Total expenditure on extended care hospitals

➢ DEFINITIONS FOR HONG KONG DHA

1) HK DHA categorises hospital services **into acute care (F1.1.1), psychiatric (F1.1.2) and extended care (F1.1.3)** categories, using the existing boundary definitions used by HA.

2) Expenditure on acute care hospital services are defined as current expenditures by institutions or by hospital departments accommodating patients whose average length of stay is 30 days or less.

3) Expenditure on psychiatric hospital services are defined as current expenditures by institutions, hospitals or hospital departments dealing with mental diseases, excluding facilities for the mentally handicapped whose services are almost exclusively of a specialised education and specialised residential nature.

4) Expenditure on extended care hospital services are defined as current expenditures by institutions and hospital departments caring for patients whose average length of stay is 31 days or more.

F1.2 Total expenditure on Ambulatory care

F1.2.1 Registered medical practitioners

➢ DEFINITIONS FOR HONG KONG DHA

1) Expenditures for services and medical products delivered by or under the supervision of medical practitioners registered under the Medical Registration Ordinance, working in both public and private sectors in facilities devoted solely to provision of outpatient services.

2) This includes salaries, pharmaceutical and other related expenses for services delivered in public outpatient clinics under the supervision of a registered medical practitioner, which are located separately from a hospital, as well as expenditures at private medical practitioner clinics.

3) Expenditures to purchase pharmaceuticals at dispensing private doctors are included in this category. However, as these expenditures are partly for the doctors' time and partly for the cost of drugs dispensed, it is better to disaggregate the category into **(i) expenditures at private (or public sector) general practitioners (F1.2.1.1), (ii) expenditures at private (or public sector) medical specialists (F1.2.1.2), and (iii) expenditures at other medical practitioners(F1.2.1.3)**

4) SOPD services delivered by HA in facilities devoted solely to provision of outpatient services are classified as F1.2.1.2.

5) Private GP's are distinguished from private specialists. For the period starting 1998 onwards, specialists will be defined as those medical practitioners registered in the Specialists Register.

6) Hospital outreach services under the supervision of medical practitioners such as the community psycho-geriatric team and community geriatric team are also included.

F1.2.2 Other registered and qualified medical care professionals

➢ DEFINITIONS FOR HONG KONG DHA

1) Expenditures for services and medical products delivered on an ambulatory basis by or under the supervision of (i) health care professionals registered under the Nurses, Midwives, and Chiropractors Registration Ordinances, including community nurses and community psychiatric nurses, (ii) physiotherapists and occupational therapists registered under the Supplementary Medical Professions Ordinance, and (iii) formally qualified health care professionals, including clinical psychologists, dieticians, speech therapists and prosthetists.

2) This excludes services and medical products delivered by these health care professionals, but under the supervision of registered medical or dental practitioners, which are included under F1.2.1 and F.1.2.7.

F1.2.3 TCM providers

F1.2.4 Unregistered medical care professionals

➢ DEFINITIONS FOR HONG KONG DHA

1) Expenditures for traditional Chinese medicine (TCM) practitioners (F1.2.3) are defined as all expenditures for services and medical products delivered by TCM practitioners, as they are or may be recognised and registered by government statute or ordinance.

2) This category (F1.2.3) excludes expenditures for the purchase of TCM products from TCM stores or shops (those not dispensed by TCM practitioners).

3) Expenditures for unregistered medical care professionals (F1.2.4) include all expenditures for services and medical products delivered by medical providers not registered by government ordinance or statute, and not included in categories F1.2.1, F1.2.2, and F1.2.3.

F1.2.5 Laboratory services

➢ DEFINITIONS FOR HONG KONG DHA

Expenditures on laboratory tests and services provided by commercial clinical laboratories and public laboratories, but excluding hospital laboratories serving out-patients being treated by the same hospitals.

F1.2.6 X-rays and imaging diagnostic procedures

➢ DEFINITIONS FOR HONG KONG DHA

Expenditures on diagnostic radiology services/procedures provided by private physicians' offices, commercial facilities and private hospitals to outpatients.

F1.2.7 Dental services

➢ DEFINITIONS FOR HONG KONG DHA

1) Expenditures on dental services consisting of expenditures on professional health services provided by or under the supervision of dentists.

2) Expenditures on dental prostheses, which are recorded separately under distribution of medical goods, are excluded.

F1.2.8 Psychological and socio-psychological care

➢ DEFINITIONS FOR HONG KONG DHA

1) Expenditures on psychological services and psycho-social therapy consist of expenditures on all mental/psychiatric services provided outside of hospitals, but exclude hospital outreach services supervised by medical practitioners which are classified under F1.2.1.2

2) Drug rehabilitation and treatment of drug addicts are included. This is defined as only including expenditures related to SARDA, the methadone programme, half of those expenditures related to preventive education and publicity, and expenditures on health related drug research projects.

3) Drug Addicts Treatment Centres (DATC's) operated by CSD are to be excluded.

4) Other programmes run by NGO's (mainly religious agencies involved in medical and social work) which are more social rather than medical oriented in their counselling are not included.

F1.3 Residential nursing care/long term care for frail elderly people

➢ DEFINITIONS FOR HONG KONG DHA

1) This includes expenditures on establishments receiving elderly patients or patient requiring long term chronic care, plus expenditures on rehabilitation, post-clinical care, and specialised chronic facilities, in which medical and paramedical services constitute a substantial part of total outlays.

2) Infirmary expenditures for public and private C&A homes and nursing homes are to be included[1].

3) In future, when data permit, this category will be reviewed and possibly further subdivided to distinguish between nursing home care for the elderly and other nursing care for those who need such care for clinical reasons, or into any other categorisation that makes sense.

[1] For the public sector , cost reference could be made to SWD's provision of infirmary supplements to public funded C&A homes and nursing homes.

F1.4 Home Care

➢ DEFINITIONS FOR HONG KONG DHA

1) Care provided in the home of a patient by a special unit of a conventional hospital or a community service, which substitutes for in-patient care or retards the institutionalisation of a patient.

2) Domicilliary services which are not for the purpose of preventing inpatient admission of home-based patients are excluded, and covered under ambulatory services (F1.2).

F1.5 Patient transport and emergency rescue

➢ DEFINITIONS FOR HONG KONG DHA

Expenditures for transportation in an especially-equipped surface vehicle or by a designated air ambulance to and from facilities for the purposes of receiving medical and surgical care. It may also include transportation in conventional vehicles, such as taxi, when the latter is authorised and costs reimbursed to the patient (as it is often the case for patient undergoing renal dialysis or chemotherapy). Emergency transport includes: emergency transport services of public fire rescue departments or other public transport services that operate on a regular basis for civilian emergency services (not only for catastrophe medicine).

F2 Distribution of medical goods

➢ DEFINITIONS FOR HONG KONG DHA

1) Expenditures on medicaments, prostheses, medical appliances and equipment and other health related products provided to individuals, either with or without a prescription, usually from dispensing chemists, pharmacists or medical equipment suppliers intended for consumption or use by a single individual or household outside a health facility or institution.

2) Hiring of therapeutic equipment is included. Hiring and repair of therapeutic appliances and equipment is reported under the corresponding categories of goods. Also included is the service of dispensing medical goods, fitting of prosthesis and services like eye tests, in case these services are performed by specially trained retailed traders and not by medical professions.

3) Excluded are the following items: protective goggles, belts and supports for sport; veterinary products; sun-glasses not fitted with corrective lenses; medicinal soaps.

F2.1 Pharmaceuticals

➢ DEFINITIONS FOR HONG KONG DHA

1) Total expenditures on pharmaceuticals are defined as all expenditures for medicinal preparations, branded and generic medicines, drugs, patent medicines, serums and vaccines, vitamins and minerals, oral contraceptives, and TCM products and foods (other than those dispensed by TCM practitioners).

2) An exact classification corresponding to specific product groups listed in the Census Household Expenditure Survey are defined for operational reasons.

F2.2 Therapeutic appliances and medical equipment

➢ DEFINITIONS FOR HONG KONG DHA

1) Expenditures on dental prostheses (F2.2.1) are defined as including dentures, but not the fitting performed by dentists.

2) Expenditure on glasses and other vision aids (F2.2.2) are defined as including corrective eye-glasses and contact lenses with corresponding cleansing fluid, and fitting by opticians.

3) Expenditures on orthopaedic appliances and other prostheses (F2.2.3) are defined as including orthopaedic appliances and other prosthetics, orthopaedic shoes, artificial limbs and other prosthetic devices, orthopaedic braces and supports, surgical belts, trusses and supports, neck braces.

4) Expenditures on medico-technical devices (F2.2.4) are defined as including wheelchairs, powered and unpowered and invalid carriages.

5) Expenditures on other medical products n.e.c. (not expressly classified) (F2.2.5) are defined as including blood pressure instruments, clinical thermometer, adhesive and non-adhesive bandages, hypodermic syringes, first-aid kits, condoms, incontinence material, hot-water bottles and ice bags, medical hosiery items such as elastic stockings and knee pads, but excluding automatic staircase lifts.

6) An exact classification corresponding to specific product groups listed in the Census Household Expenditure Survey will be defined for operational reasons for each of the above.

F3 Collective health services

F3.1 Health promotion and disease prevention

F3.1.1 Maternal and child health care

F 3.1.2 Family Planning services

F3.1.3 Disease prevention

F3.1.4 Health promotion

F3.1.5 School health services

F 3.1.6 Expenditure on food, hygiene, standards monitoring

F 3.1.7 Control of drinking water, environmental surveillance

➢ DEFINITIONS FOR HONG KONG DHA

1) Collective health services (F3) are defined as including services designed to enhance the health status of the population as distinct from the curative services which repair health dysfunction. Collective health services are separated into health promotion and disease prevention (F3.1) and other collective services (F3.2).
2) Expenditures on health promotion and disease prevention (F3.1) include promotive and preventive services, whether prevention is provided as social programme (public or private, including occupational health) or is requested on the patient's own initiative. The range of these activities includes essentially the items listed after this.
3) Expenditures on maternal and child health (F3.1.1) and expenditures on family planning and counselling (F3.1.2) cover medical service, such as genetic counselling and prevention of specific congenital abnormalities, prenatal and postnatal medical attention, well-baby health care, pre-school and school child health.
4) Expenditures for prevention of disease are disaggregated into those for prevention of communicable diseases (F3.1.3.1) and those for prevention of non-communicable diseases (F3.1.3.2)
5) **Expenditures for prevention of communicable diseases (F3.1.3.1)** cover compulsory reporting/notification of certain communicable diseases and epidemiological enquiry of communicable disease; efforts to trace possible contacts and origin of disease; prevention of tuberculosis and tuberculosis control (including systematic screening of high risk groups); immunisation/vaccination programmes (compulsory and voluntary); vaccination under maternity and child health care. Excluded are vaccination for occupational health; vaccination for travel and tourism on the patients' own initiative.

6) **Expenditures for prevention of non-communicable diseases (F3.1.3.2)** include centres for disease surveillance and control; programmes for the avoidance of risks incurred and the improvement of the health status of the community in general, general health education and health information of the public, health education campaigns; campaigns in favour of healthier life-styles, safe sex etc.; information exchanges: *e.g.* alcoholism, drug addiction; environmental surveillance and public information on environmental conditions. Excludes activities of self-help groups, and health education campaigns of self-help groups;
7) Expenditures for health promotion (F3.1.4) include expenditures on interventions against

smoking, alcohol and drug abuse include activities of community workers, but excludes activities of self-help groups.

8) School health services (F3.1.5) are defined as services provided specifically to school-going children or specifically within a school setting to school children.

9) Expenditures on food hygiene control (F3.1.6) cover monitoring of veterinary and other inspectorates designed to implement food hygiene standards.

10) Expenditures for control of drinking water and environmental surveillance (F3.1.7) include such activities with a specific health purpose such as maintenance of standards health standards, but exclude fluoridation of drinking water.

F3.2 Other collective health services

F3.2.1 Occupational health care

> ➢ DEFINITIONS FOR HONG KONG DHA
>
> Expenditures on occupational health care are defined as covering expenditures incurred by employers on or off-business premises for the surveillance of employee health and therapeutic care.

F4 Health programme administration and health insurance

> ➢ DEFINITIONS FOR HONG KONG DHA
>
> 1) Expenditures on health programme administration and health insurance (F4) consist of expenditures on health programme administration (F4.1) and administration of health insurance (F4.2).
> 2) Expenditures on health programme administration (F4.1) consist of expenditures for the strategic management, planning, regulation, collection of funds and handling of the health delivery system. In the case of services provided by HK SAR government, CAO's which reflect the costs of a functional department incurred in the costs of services provided by other central departments are used where appropriate to arrive at the total public health expenditure in this category. It has been decided that respective CAO figures are estimated pro-rata according to budgets for the programmes included in the DHA.
> 3) The expenditure by private health insurance companies is the difference between revenue from premiums and claims' benefit, which may include a "technical reserves and profits" element. This expenditure is included in administration of health insurance (F4.2).

HEALTH RELATED FUNCTIONS

F5 Investment in medical facilities

➢ DEFINITIONS FOR HONG KONG DHA

1) Hong Kong DHA adopts full cost accounting and ignore depreciation - which is the same concept as Gross Domestic Fixed Capital Formation in national income accounting.

2) Expenditures on investment into medical facilities (F5) includes all HA capital expenditure on plant and medical equipment and information systems as separately funded by the government.

F6. Expenditure on health education and training

➢ DEFINITIONS FOR HONG KONG DHA

1) Expenditures for education and training of health personnel by both public and private agencies and institutions. Salaries of nurse trainees are not included for time spent in providing care to patients, even if that is concomitant with a training element. However, salaries for trainees or other health personnel who are undergoing training in a class-room setting outside a clinical setting are included.
2) Expenditures by medical and nursing schools are included, as well as expenditures for professional further education by professional bodies, such as the Academy of Medicine.

F7 Health Research & Development

➢ DEFINITIONS FOR HONG KONG DHA

Hong Kong DHA adopts the definitions and approach presented in OECD Proposal for measuring expenditures on health research and development

F8 Expenditure on environmental health

➢ DEFINITIONS FOR HONG KONG DHA

1) Exclude inclusion of this item until a better international standard definition is developed.
2) The HK DHA definition of this category when determined is to include: expenditure by Agriculture and Fisheries Department on pesticide control only.

F9 Administration and provision of cash benefits

➢ DEFINITIONS FOR HONG KONG DHA

Uses the same definition as used by OECD 1998. However, this category does not have substantial relevance for Hong Kong.

REVIEW OF INTERNATIONAL PRACTICE

Core functions of medical care

F1 Personal health services

The above is similar to that in OECD Proposal. Personal health services consist of hospital services, ambulatory services, residential nursing care/long term care, home care and patient transport and emergency rescue.

OECD Proposal does not keep the inpatient/outpatient division customarily used in disaggregating personal health services, both by national agencies and by OECD itself. Instead it proposes a breakdown which focuses on the clinical nature of the service given. Our opinion is that this suggested alternative breakdown will not survive revisions by OECD member countries, and so we propose that Hong Kong DHA continue to use the inpatient/outpatient distinction which is common to virtually all NHA systems.

F1.1 Hospital services

This corresponds largely to inpatient care as defined in OECD 1998, and in USA, Canada and Japan. The relevant definitions follow.

OECD 1998

Total expenditure on In-patient care

Current expenditure, exclusive of investment outlays, on in-patient care, which includes:
(a) Acute Hospital Care
(b) Psychiatric Hospitals
(c) Nursing Homes
(d) Home care
(e) Other Long-Term Care.

- Included: All types of public and private hospitals; general hospitals, special hospitals (paediatric, orthopaedic, cancer, rehabilitation, etc.), extended care, mental hospitals, tuberculosis hospitals (sanatoriums).
- Excluded: Out-patient care and care delivered in the armed forces, prisons, and schools. Out-patient care is defined as including day cases, such as day surgery.
- The boundaries differentiating residential care/social services from nursing home care are not homogeneous. (For international purposes, on-going work is attempting to approximate these boundaries.)
- Although the OECD definition does not include out-patient expenditures of hospitals, most countries in fact report hospital out-patient expenditures as part of in-patient spending. The reason is essentially lack of suitable data to make the disaggregation.

Canada
Data reported for expenditures for care in hospitals and "other institutions". Hospitals include facilities for acute, chronic/extended, convalescent/rehabilitation, and psychiatric care. "Other institutions" include homes for the aged, institutions for the physically handicapped, the mentally retarded and the mentally handicapped, emotionally disturbed children, and treatment centres for

substance abuse.

- Includes: expenditures on hospital out-patient services, with the exception of physicians' fees for hospital out-patient services paid directly to the physicians by the provincial medical insurance plans; home care provided by hospitals and expenditures by the Department of National Defence and by Solicitor General Canada (correctional services).
- Federal government expenditures for hospital services represent direct payments to providers of service excluding the tax-abatements and cash contributions to provinces, yet include services provided to special groups (e.g. veterans and members of the armed forces whose care is a federal responsibility).
- Provincial governments' expenditure represents total payments by provincial governments and includes the spending of federal cash contributions and tax-abatement proceeds. Only benefits are included in compensation boards figures. Private hospital expenditures include charges for preferred accommodation, charges for services to uninsured persons ; charges for services that are not medically necessary and user charges.

Japan

The total of in-patient care expenditure (from National Medical Expenditure Estimates), nursing home care expenditure (from Annual Report of Medical Operation for the Elderly, the cost for in-patient care only) and home care expenditure (from National Medical Expenditure Estimates). Includes nursing and transportation expenses.

United Kingdom

Includes out-patient and day-patient services for England and Wales. Excludes ambulance services, blood transfusions and other central services.

United States

In the national health accounts, hospital care is defined as covering all services provided by hospitals to patients. Thus, expenditure covers room and board charges, ancillary charges such as operating room fees, the services of resident physicians, in-patient pharmacy charges, charges for hospital-based nursing home care, and any other services billed by the hospital.

Includes hospital services for armed forces and prisoners and expenditures made on behalf of military personnel.

Discussion

It is desirable to distinguish hospital expenditures in acute care hospitals from those in other long-stay facilities, as these are different types of services, and may require different funding mechanisms. In addition it would be also be desirable to separate hospital services from those provided in long stay nursing homes and private homes. The two non-acute care categories which most need separate treatment is psychiatric care and extended care. As for psychiatric care, while psychiatric care provided in hospitals is classified under in-patient, that provided in other settings is classified under a separate category: psychological and socio-psychological care (F1.2.8).

F1.1.1 Total expenditure on acute care hospitals

OECD 1998

Acute care is defined either in terms of an institution (hospital) or a ward (hospital department). Expenditure on acute hospital care is defined as current expenditure on institutions (or wards) accommodating patients whose average length of stay is 30 days or less. Hospital out-patient care expenditures are specifically excluded.

Canada

In the Canadian health accounts, data are not compiled separately for acute hospital care, since the provincial public accounts, the main data sources used to compile hospital expenditures, do not generally permit a distinction between types of hospital care. An alternative data source, the "Annual Return of Hospitals" provided to Statistics Canada, allows for the identification of expenditures of public short-stay hospitals. However, more than 20% of the beds in the short-stay hospitals are for long-term care and psychiatric care.

Reported data represent expenditures in all hospitals: short-stay hospitals (general, paediatric, orthopaedic, cardiology, neurology, maternity, cancer, etc.), chronic/extended care hospitals, convalescent/rehabilitation hospitals, and psychiatric care hospitals.
Reported data include expenditures on hospital out-patient services (except fees paid directly to the physicians by the provincial medical insurance plans for hospital outpatient services) and expenditures on home care provided by hospitals.

United Kingdom

Categorises hospitals into: Acute Care Hospitals, Psychiatric Hospitals, Long-Stay Hospitals. Acute Care hospitals are defined as those hospitals with not more than 40 % of their beds allocated to the excluded departments (i.e. mental illness, child psychiatry, mental handicap, diseases of the chest, units for the younger disabled, geriatric and convalescence). Over 97 % of the hospitals defined as "Acute" had an ALOS of less than 30 days.

F1.1.2 Total expenditure on psychiatric hospitals

OECD 1998

Expenditures in hospitals or hospital departments dealing with mental diseases, excluding facilities for the mentally handicapped (whose services are almost exclusively of a specialised education and specialised residential nature).

United Kingdom

UK only reports expenditures with respect to public sector (NHS) spending.

Finance Division NHS Executive HCHS (Hospital and Community Health Services) Programme Budget - latest year. Gross Expenditure (£m) as sum of categories: Mental illness In-Patient, Mental Illness Out-Patient and Mental Illness Day-Patient.
United States

This total includes Private and State and Local non-community psychiatric hospitals, but excludes federal hospitals.

F1.1.3 Total expenditure on extended care hospitals

Neither OECD 1998 nor the OECD Proposal include a specific category of this type. However, the UK and possibly other OECD countries distinguish long-stay hospitals which have ALOS of greater than 30 days.

Discussion

The exact categorisation to be used for hospital services expenditures in Hong Kong must ideally correspond to the intent of the breakdown normally used in OECD countries. At the same time, it must be compatible with the existing information systems used by Hospital Authority, the largest hospital operator in the SAR. In categorising hospital expenditures into these three categories, most OECD countries have compromised on the original intent by using institutions as the unit of classification, since the data do not support disaggregation at a more basic level in most cases. In Hong Kong's case. the HA information systems already disaggregate spending into three categories, and this used be in setting the boundaries of each type of expenditure. This allows easy categorisation of HA expenditures, and only leaves the smaller problem of obtaining data on expenditure distributions in the private sector.

F1.2 Total expenditure on Ambulatory care

OECD 1998

The sum of current outlays on:

1. Physicians' services, including osteopaths
2. Dental services
3. Other professional health services (optometrists, chiropractors, podiatrists, speech therapists, psychologists, dieticians, occupational therapists and nurses, natural therapists, acupuncturists, hypnotherapists, physiotherapists)
4. Services in hospital out-patient departments.

The services of professionals working under salary for hospitals, nursing homes, or some other type of health care establishments are reported with expenditures for the services offered by the establishment. For example, care rendered by hospital residents and interns is defined as hospital care ; services provided by nursing home staff nurses are included with nursing home care. Professional fees paid by hospitals to physicians are counted with hospital care rather than with physician services. Professional salaries of physicians and dentists serving full-time in the armed forces, prisons, etc. are not included.

Canada

The sum of current outlays on the services of physicians, dentists and other health professionals in private practice (chiropractors, optometrists, podiatrists, osteopaths, naturopaths, nurses, denturologists, and physiotherapists).

- Gross expenditures include overhead expenses of private practice where applicable, such as the wages of employees, rents, utilities, car expenses and premiums for malpractice insurance. They exclude wages of government public health workers and of employees of hospitals and other institutions whose earnings are included in the expenses of the entities employing them.
- Included: Salaries of physicians serving in the armed forces and prisons.
- Excluded: expenditures on services supplied by the out-patient department of hospitals, with the exception of fees paid directly to physicians by the provincial medical care insurance plans for hospital out-patient services.

Japan

Figures refer to the sum of expenditures on "out-patient care" and "dental care". They include the share of expenditure by hospitals and clinics on medicines dispensed in their out-patient wards.

United Kingdom
Sum of general medical, dental and ophthalmic services net of user charges. Fiscal-year figures are pro-rated to arrive at a calendar year basis. Excludes expenditure on hospital out-patient services.

United States

The closest equivalent category in the USA NHA are expenditures for professional services. This is defined as including the services of physicians, dentists, and other professionals. Currently, the USA relies on annual surveys of the service sector in order to obtain data on these activities, and therefore the categories into which professional expenditure falls is determined by the 1987 Standard Industrial Classification (SIC).

- For the physicians, the SIC codes are 801 (Offices and clinics of Doctors of Medicine) and 803 (Offices and clinics of Doctors of Osteopathy). In addition they include the independently billed medical laboratories procedures (part of SIC 8071).
- For the dentists, the SIC code is 802 (Offices and clinics of Dentists).
- For the other professional services, the SIC codes are 804 (Offices and clinics of chiropractors, optometrists, podiatrists, health practitioners not elsewhere qualified such as nurses, acupuncturists, occupational therapists, psychologists, etc.) and 809 (Miscellaneous health and allied services not elsewhere classified such as kidney dialysis centres and speciality outpatient facilities).
- From 1977 forward the professional services expenditures are all based on data from the Census's Services Annual Survey (SAS). Prior to 1977, the data was based on statistics compiled from the Internal Revenue Service. Employment and earnings information, price indices, data from other governmental sources, and trade association information are considered in making the private/public splits for the professional services.

F1.2.1 Registered medical practitioners

OECD 1998

Physician services

Expenditure on professional health services provided by general practitioners and specialists. Includes expenditures on services of osteopaths.

- The services of professionals working under salary for hospitals, nursing homes, or some other type of health care establishments are reported with the services offered by the establishment. For example, care rendered by hospital residents and interns is defined as hospital care. Professional fees paid by hospital to physicians are counted with hospital care rather than with physician services.
- Outpatient physician services are aggregated with general practitioners.
- Excluded: professional salaries of physicians serving full-time in the armed forces, prisons, etc.

Canada

Expenditure on physicians' services

The largest component is professional fees paid by provincial medical care insurance plans. Among other components are salaries and other forms of contractual professional incomes received by physicians, fee payments made by workers' compensation boards, direct expenditures on physicians' services by federal agencies, private-sector payments for services not covered by provincial plans and amounts extra-billed by physicians in the years preceding the prohibition of extra-billing in the mid-eighties.

- Includes the professional remuneration of physicians serving in the armed forces and prisons.
- Excludes the remuneration of physicians who are on payrolls of hospitals, public health agencies, and the like, physicians' fees for hospital out-patient services, with the exception of fees paid directly by the provincial medical care insurance plans.
- Excludes expenditures on services of osteopaths (in 1992, there were only 16 active licensed osteopaths in Canada).

Japan

Expenditure on physicians' services

Figures refer to the expenditure on "out-patient care", which doesn't include the expenditure on dental care.

United Kingdom

Reports fiscal-year expenditures by NHS on general medical services pro-rated to arrive at a calendar year basis.

F1.2.2 Other registered and qualified medical care professionals

This category covers medical, nursing or other professional services delivered on an out-patient or ambulatory basis by qualified medical professionals other than registered medical or dental practitioners. No standard definition is available for OECD countries, as this demarcation between registered medical practitioners and other registered or unregistered providers depends on the particular licensing arrangements and traditions in force in a country.

In Hong Kong, statutory arrangements are provided or are about to be initiated for registration of the following health care professions:

Profession	Related Ordinance
Medical practitioners	Medical Registration Ordinance
Nurses (both enrolled and registered nurses)	Nurses Registration Ordinance
Midwives	Midwives Registration Ordinance
Dentists	Dental Registration Ordinance
Dental Hygienists	Dental Registration Ordinance
Chiropractors	Chiropractors Registration Ordinance
Pharmacists	Pharmacy and Poisons Ordinance
Physiotherapists	Supplementary Medical Professions Ordinance
Occupational therapists	Supplementary Medical Professions Ordinance
Medical laboratory technologists	Supplementary Medical Professions Ordinance
Optometrists	Supplementary Medical Professions Ordinance
Radiographers	Supplementary Medical Professions Ordinance

Of these, not all supply services directly to patients by themselves. Those registered under the Supplementary Medical Professions Ordinance generally only deliver services together with other registered medical providers.

In addition, the following groups of formally qualified professions (which are not defined in law) also provide medical services directly to patients without the direct involvement of other registered health care professionals: clinical psychologists, dieticians, speech therapists and prosthetists.

F1.2.3 TCM providers

F1.2.4 Unregistered medical care professionals

The category of unregistered medical care professionals exists to cover care provided by all unregistered medical care providers or those not formally recognised. In the context of OECD countries, this category is all-inclusive, and would include practitioners of traditional medicine, and other alternative medical therapies. However, in Hong Kong's case, traditional Chinese medicine practitioners are an important group of providers in their own right, and one which the government seeks to regulate and register in future. For this reason, it is desirable that Hong Kong distinguishes between such TCM providers and others which are not registered currently.

F1.2.5 Laboratory services

OECD 1998

Expenditures on laboratory tests and services provided by commercial clinical laboratories, public laboratories, and hospital laboratories serving out-patients.

Canada

The data include payments by the provincial medical care plans to commercial laboratories and expenditures of provincial public health laboratories, as well as direct costs of hospital laboratories (for tests pertaining to both in-patients and out-patients). Direct costs are the costs charged directly to the laboratory department in the hospital accounting system (remuneration of physicians and of technical & support star, the cost of laboratory supplies).

Excludes: laboratory costs of the federal government, except for the estimated laboratory costs of federal hospitals.

OECD Proposal

OECD Proposal presents a detailed sub-classification of expenditures on laboratory services, based on an international clinical classification of laboratory procedures. However, since it is difficult for many countries to compile expenditures disaggregated in this fashion, and since the existence of multiple-channel analysers makes it difficult to allocate costs by specific type of test, the OECD Proposal be followed at this stage. Moreover, there seems little compelling policy reason why these expenditures need to be disaggregated.

Discussion

The market for laboratory services in Hong Kong differs significantly from that in many OECD economies. The major provider of laboratory services is HA, but its laboratory services are only available to patients who are being cared for by its doctors and needing tests as part of their treatment plan. HA does not allow other patients, either by themselves or referred by private doctors to make use of HA laboratory services. As it is difficult to disaggregate laboratory expenditures for HA outpatients from expenditures for inpatients, and since there is little need for such information, there is little value to be gained from the exercise. For private sector expenditures, the major source of expenditure data are the Census Household Expenditure Surveys, which do record expenditures in this category.

F1.2.6 X-rays and imaging diagnostic procedures

OECD 1998

Expenditure on diagnostic radiology services/procedures provided by private physicians' office, commercial facilities, public facilities, and hospitals.

Canada

The data include payments by the provincial medical care plans for diagnostic radiology services provided in private physicians' offices and commercial radiology facilities, as well as direct costs of diagnostic radiology services in hospitals (for both in-patients and out-patients). Direct costs are the costs charged directly to the hospital diagnostic radiology unit in the hospital accounting system.

- Excludes payments for ultrasonography provided outside the hospital radiology units.

OECD Proposal

OECD Proposal presents a detailed sub-classification of expenditures on diagnostic imaging services, based on an international clinical classification of imaging for diagnostic purposes. As with laboratory services, it is difficult for many countries to compile expenditures disaggregated in this. It is not recommended that the OECD Proposal be followed at this stage. Moreover, there seems little compelling policy reason why these expenditures need to be disaggregated.

F1.2.7 Dental services

OECD 1998

Expenditure on dental services consists of expenditures on professional health services provided by dentists, but excluding professionals' salaries of dentists serving full-time in the armed forces, prisons, etc. Expenditures on dental prostheses, which are recorded separately, are excluded.

Canada

Expenditure for dental services includes expenditure on services of dentists, dental assistants, dental hygienists and denturists.

- It includes the cost of dental prostheses, including false teeth and laboratory charges for crowns and other dental appliances. Data submitted by private insurers do not allow for the exclusion of dental prostheses from dental services.

United Kingdom

Public dental expenditure is fiscal-year expenditure on general dental services (net of user charges) pro-rated to arrive at a calendar year basis.

Discussion

As Census's Household Expenditure Survey does record expenditures on dental prostheses and dentists fees separately, it is relatively easily to produce estimates for these expenditures which are incurred by households. Since dental prostheses are better treated as a medical good, this category is reserved for expenditures for the professional services of dentists.

F1.2.8 Psychological and socio-psychological care

This category is not reported separately by OECD in its annual health data series, and is therefore not currently defined. However it does occur as a new expenditure category in the OECD Proposal, which recognises that this is an important type of health care, and one which often needs to be financed and provided differently from other types of health care. As this distinctiveness in financing and provision is seen in Hong Kong, it is recommended that this new category be included in Hong Kong's functional classification of health expenditures to include these services provided outside of hospitals. In the case of hospitals, these type of expenditures already covered separately in the proposed classification of expenditures on hospital services.

OECD Proposal

This item comprises special mental treatment and training (performed by medical or paramedical personnel) psychotherapy, psycho-social treatment, pedagogic diagnostics, pedagogic training, orthodidactic diagnostics. To include services the following criteria must be taken into consideration:

1. Services are provided by a trained specialist (doctor, psychologist, nurse) predominantly performing psychological encounters and therapy;
2. Services are provided in a specialised institution (psychiatric hospital; institutions for mentally retarded/handicapped; clinics for drug addicts);
3. Services constitute some kind of "therapy" or crisis intervention where mental aspects predominate.

F1.3 Residential nursing care/long term care for frail elderly people

OECD 1998

Nursing home care

Expenditure on establishments receiving elderly patients or patient requiring long term chronic care.

Other long term care

Rehabilitation, post-clinical care, and specialised chronic facilities in which medical and paramedical services constitute a substantial part of total outlays.

Canada

Expenditures for care in homes for the aged, institutions for physically handicapped, mentally retarded, mentally handicapped, emotionally disturbed children, and treatment centres for substance abuse.

Japan

Recuperation cost of nursing home care (cost for in-patient care only).

United Kingdom

Only NHS expenditures are reported, i.e., only care with a significant health element is included.

F1.4 Home Care

OECD 1998

Care provided in the home of a patient by a special unit of a conventional hospital or a community service, which substitutes for in-patient care or retards the institutionalisation of a patient.

- Home care is normally treated as ambulatory care, but many countries' data do not yet allow to disaggregate it from in-patient expenditure.

United Kingdom
Home care is not included in their definition of in-patient care.

F1.5 Patient transport and emergency rescue

OECD 1998

Expenditure for transportation in an especially-equipped surface vehicle or by a designated air ambulance to and from facilities for the purposes of receiving medical and surgical care. It may also include transportation in conventional vehicles, such as taxi, when the latter is authorised and reimbursed to the patient (as it is often the case for patient undergoing renal dialysis or chemotherapy).

- OECD notes that patient transport is often recorded under in-patient care.

Canada

The data represent public expenditures for transportation in an especially-equipped surface vehicle or by a designated air ambulance to or from facilities for the purposes of receiving health care. Ambulance expenditures reported in provincial public accounts as hospital expenditures are subtracted from the hospital category and added to the ambulance category. No data on private sector expenditures are available.

OECD Proposal

This item includes transportation in an especially-equipped surface vehicle or by a designated air ambulance to and from facilities for the purposes of receiving medical and surgical care. It may also include transportation in conventional vehicles, such as taxi, when the latter is authorised and costs reimbursed to the patient (as it is often the case for patient undergoing renal dialysis or chemotherapy). Emergency transport includes: emergency transport services of public fire rescue departments or defence that operate on a regular basis for civilian emergency services (not only for catastrophe medicine).

F2 Distribution of medical goods

Hong Kong DHA must adopt the definition given in OECD Proposal.

F2.1 Pharmaceuticals

OECD 1998

The consumption of pharmaceutical products includes prescriptions and self-medication, often referred to as over-the-counter (OTC) products. Vitamins are excluded as they are nutrients. The series includes the pharmacists' remuneration when the latter is separate from the price of medicines. Pharmaceuticals consumed in hospitals are excluded. The expenditure includes VAT and sales taxes where applicable.

- Excludes the amount of consumption in hospitals, which is included under in-patient care.
- Pharmaceutical expenditure is disaggregated into: (i) prescribed, and (ii) over the counter medicines.

Expenditure on prescription medicines

Total pharmaceutical expenditure with prescription: expenditure on medicines, exclusively sold to customers with a medical prescription, irrespective of whether it is covered by public or private funding. Includes the cost-sharing for these pharmaceuticals.

Expenditure on OTC products

Defined as private households' pharmaceutical expenditure without prescription: expenditure on medicines that do not need a prescription, often called Over-The-Counter (OTC).

Canada

The data represent retail expenditures on prescribed and non-prescribed drugs and personal health supplies. Some products classified as non-prescribed drugs or devices under the Canadian Food and Drug Act are considered here to be personal health supplies. The list of personal health supplies is as follows:

(a) Oral hygiene: dentifrice, dental floss, toothbrushes, oral antiseptics, denture cleansers, denture antiseptics. Infant care: cotton swabs.
(b) Home medical care/diagnostic: diabetic test strips, pregnancy test kits, selected insoles, hot/cold kits/compresses, athletic/medical support braces, elastic bandages, incontinence products, condoms, cover & tape products, fever thermometers, adhesive bandages, diabetic syringes.
(c) Other products: contact lens preparations, eye drops & lotions, medicated shampoos, antiperspirants, feminine hygiene, sanitary pads, tampons, artificial sweeteners (sugar substitutes).

Expenditure on prescribed medicine

The data represent retail expenditures on non-prescribed drugs as compiled from information provided by A.C. Nielson (Canada). The figures include the federal good and services tax (GST) and provincial sales taxes. Non-prescribed drugs include the following categories of products:

(a) Cough/Cold/Flu: cough syrups, cold tablets/cap/powder, nasal preparations, throat remedies.
(b) Infant Care: hypo-allergic feeding products.
(c) Dietary Aids/Nutritional Supplements: traditional diet products, medical nutritional supplements.
(d) External OTC: personal lubricants, tropical wound care, analgesic rubs, pediculicides,

athletes' foot products.

(e) Internal OTC: vitamins, headache remedies, diarrhoea remedies, laxatives, sleeping aids, stomach remedies, pre-menstrual products.

United Kingdom

Defined as public expenditure on pharmaceutical services net of user charges and pro-rated to arrive at calendar year basis.

- Excludes pharmaceutical services in hospitals.

United States

Drug and other non-durable products - this class of expenditure is limited to spending for products purchased from retail outlets. The value of drugs and other products provided to patients by hospitals (on an in-patient or out-patient basis) and nursing homes, and by health care practitioners as part of a provider contact, are implicit in estimates of spending for those provider services.

Prescription drugs include retail sales of human-use dosage-form drugs, biological and diagnosis products. These transactions can occur in community or HMO pharmacies, grocery-store pharmacies, mail order establishments, etc. Using a methodology originally developed by the Actuarial Research Corporation (Trapnell and Genuardi, 1987), manufacturers' domestic drug sales were augmented by wholesale and retail mark-ups and by inventory changes to arrive at final consumption by various classes of end-users (hospitals, pharmacies, etc.). Those classes of users that are included in the NHA scope were aggregated to the NHA figure. (A more recent methodology for estimating pharmaceutical expenditures has been developed by HCFA, and details of this are given in an journal article circulated to DHA team members)

- Non-prescription drugs and medical sundries comprise a long list of products. The estimate is based on private consumption expenditures (PCE) for non-durable goods (a part of the GNP), and includes spending for such items as rubber medical sundries, heating pads, bandages, and non-prescribed drugs and analgesics.

OECD Proposal

Total expenditure on pharmaceuticals is defined as all expenditures for medicinal preparations, branded and generic medicines, drugs, patent medicines, serums and vaccines, vitamins and minerals and oral contraceptives. Vitamins might be taken in many (or most) instances without a medical indication, prescription beyond the control of doctors and pharmacies. Vitamins are complex chemical substances, that can in some cases -- like other drugs -- be harmful if abused. The common practice to sell and consume vitamins like normal food products, thus not recording them as outlays, is debatable. Included is the pharmacist's remuneration when the latter is separate from the price of medicines. The expenditure includes VAT and sales taxes where applicable.

Total expenditure on prescribed medicine

Prescribed Medicines are medicines, exclusively sold to customers with a medical prescription, irrespective of whether it is covered by public or private funding and include branded and generic products. In health accounting, this includes the cost-sharing for these pharmaceuticals.

Total expenditure on OTC products

Over-the-counter medicines (OTC medicines) are private households pharmaceutical expenditure of non-prescription medicines: non-prescription medicines are often called over-the-counter (OTC) perhaps abusively as they may be included on physician prescriptions.

Discussion

Hong Kong's pharmaceutical distribution system differs significantly from most OECD countries in three respects:

I. Significant consumption of TCM products, bought both on advice of TCM practitioners, as well as directly by households for their reputed general health benefits
II. Dispensing of medicines by private doctors which accounts for a significant share of pharmaceutical sales.
III. The relaxed state of legal enforcement of the requirement to have a prescription to purchase prescription medicines, which means that most medicines (with the significant exception of narcotics) can in fact be bought without a prescription from pharmacies, despite the existence of regulations to prevent this.

OECD 1998 definition of pharmaceutical expenditures does not include vitamins as these are considered food products. The proposed draft manual however points out the dangers in classifying vitamins as nutrients and includes them in the pharmaceutical category. The reason given is that consumption of these products might be dangerous if inappropriately consumed. This has some bearing for the classification of the consumption of foods that have medicinal values (TCM). However, the OECD definitions have largely been developed in the context of countries in which traditional medicine products are not widely consumed, and therefore cannot be regarded as definitive for all health care systems.

The primary objective of NHA is to estimate total expenditures for the purpose of improving or maintaining health in a country. From this perspective, any expenditures which are primarily for this purpose must be included, irrespective of the nature of the product or service purchased. In the case of TCM products which are consumed partly as foods, this is relevant. Moreover, in Hong Kong's case, the primary data source for household expenditures for this type of product is Census's Household Expenditure Survey. This survey does not contain information on the reasons why certain products were consumed, but only the expenditures on each product or service. For this reason it is better to base the definition of pharmaceutical and medical goods for Hong Kong's DHA on the classification of expenditures existing in the HES, which is based primarily on product type.

The distinction between prescription and OTC medicines is not practical in Hong Kong's case as there is no strict enforcement of prescription regulations. For this reason, it would be better not to make such a distinction. However, if data are available from industry sources it may be possible to consider some alternative categorisation which would distinguish between medicines normally only sold on the basis of medical advice and those which are generally purchased without medical advice.

F2.2 Therapeutic appliances and medical equipment

OECD 1998

This is defined as including a wide range of medical goods other than pharmaceuticals (e.g. optical equipment, hearing devices, wheelchairs, thermometers, etc.), excluding appliances supplied in hospitals. Excludes medical prostheses and dental prostheses. The expenditures include VAT and sales taxes where applicable.

Expenditure on opticals, lenses

No definition provided.

Expenditure on dental prostheses

Expenditure of dental prostheses supplied outside hospitals. Those supplied in hospitals are included under in-patient care. Includes professional fees.

Expenditure on orthopaedic equipment

No definition provided.

Canada

Reports expenditures on eyeglasses (including glasses, parts, and contact lenses), hearing aids, and other appliances and prostheses such as wheelchairs, trusses, walkers and artificial limbs.

- Excludes expenditures for dental prostheses which are included with DENTISTS and expenditures by hospitals for appliances and prostheses which are included with HOSPITALS.
- Includes private expenditures for the professional services of optometrists and dispensing opticians. Optometric examinations are not reported separately from eyeglasses and contact lenses in primary data sources for private expenditures on health care.

Expenditure on dental prostheses

Expenditure of dental prostheses supplied outside hospitals. Those supplied in hospitals are included under in-patient care. Includes professional fees.

United Kingdom

Reports expenditures only for spectacle frames and lenses.

United States

Reports expenditures for such items as eyeglasses, hearing aids, surgical appliances and supplies, bulk and cylinder oxygen and equipment rental. As for non-durables, estimates of durable goods expenditures are based upon personal consumption expenditures. To accommodate the National Health Accounts (NHA) definitions, adjustments are made to the Private Consumption Expenditure (PCE) categories for ophthalmic and orthopaedic appliances" and "other professional services" for certain GNP benchmark years.

OECD Proposal

Therapeutic appliances and medical equipment

Defines this category as covering a wide range of medical goods including the distribution for final use of all other medical goods besides pharmaceuticals.

Dental prostheses

Dental prostheses include dentures but not the fitting performed by dentists.

Glasses and other vision aids

Corrective eye-glasses and contact lenses with corresponding cleansing fluid. Includes fitting by opticians

Orthopaedic appliances and other prosthetics

Orthopaedic appliances and other prosthetics; orthopaedic shoes, artificial limbs and other prosthetic devices, orthopaedic braces and supports, surgical belts, trusses and supports, neck braces.

Medico-technical devices

Wheelchairs, powered and unpowered and invalid carriages.

Other medical products n.e.c.

This item includes: blood pressure instruments, clinical thermometer, adhesive and non-adhesive bandages, hypodermic syringes, first-aid kits, condoms, incontinence material, hot-water bottles and ice bags, medical hosiery items such as elastic stockings and knee pads. These goods are included as they may constitute an important cost component in home care, in particular when caring for frail elderly persons. Excluded however, are automatic staircase lifts.

Discussion

The detailed classification of expenditures in this category by OECD Proposal largely corresponds to previously agreed UN classifications of the purposes of private consumption by households. This therefore also closely corresponds or can be mapped directly to the product groupings used by Census in its Household Expenditure Survey. For this reason, it is desirable to closely follow the OECD Proposal.

F3 Collective health services

This category consists of a variety of different types of collective health services, many of which are not expressly grouped in this overall category in most NHAs. Definitions in current use by national agencies and by the OECD are documented below for each of the sub categories of collective health services proposed for Hong Kong DHA . Following these, the definitions for the same sub-categories are given for OECD Proposal. Recommendations for Hong Kong are drawn from both sets

F3.1 Health promotion and disease prevention

OECD 1998

Expenditure on services designed to enhance the health status of the population as distinct from the curative services which repair health dysfunctions, such as vaccination, campaigns when not included in maternity and child health care, programmes to eradicate unhealthy life styles.

F3.1.1 Maternal and child health care

F 3.1.2 Family Planning services

OECD 1998

Refers to outlays on programmes providing counselling and antenatal services to expectant mothers as well as counselling, vaccination and paediatric care to infants. Family planning, which is often a joint product with social and medical components, would be included when the medical components dominate.

F3.1.3 Disease prevention

F3.1.4 Health promotion

OECD 1998

Expenditures on screening and community health

This is defined as referring to outlays on programmes mainly collectively supplied and otherwise not listed (such as school health services or maternal and child health services), e.g. vaccination programmes, health education campaigns, etc., whose purposed intent is the avoidance of risks incurred such as contamination and infections and the improvement of the health status of nations, such as campaigns in favour of healthier life styles, safe sex etc.

Canada

Expenditures on screening and community health

This refers to outlays on programmes mainly collectively supplied and otherwise not listed (such as school health services or maternal and child health services), e.g. vaccination programmes, health education campaigns, etc., whose purposed intent is the avoidance of risks incurred such as contamination and infections and the improvement of the health status of nations, such as campaigns in favour of healthier life styles, safe sex etc

F3.1.5 School health services

OECD 1998 defines the category 'Military, school and prison health services' (?3.4). In the case of Hong Kong's DHA, military and most prison health services are excluded from consideration for DHA purposes.

OECD 1998

F3.4 Military, school and prison health services

The United Nations Standard Accounting System (SNA) treats medical services associated with schooling, periods spent in the armed forces, and prisons, as auxiliary services of education, defense, and law and order. The European System of integrated economic Accounts (ESA), applied by the European Community, has adopted in this respect similar rules. For consistency purpose, these "subsidiary" services are consolidated with medical consumption in the OECD series.

- Expenditures on care to Veterans are typically not recorded under Armed Forces Health Services, but rather under In-Patient Care and Ambulatory Care.
- Professional salaries of physicians and dentists serving in the armed forces, prisons, etc. are included here (they are not included under Ambulatory Care).

Canada

Armed Forces: reports expenditures by the Department of National Defense on health services to its members and their families.

Japan

Expenditure on Prison Health Services as reported by Ministry of Finance.

United Kingdom

Does not report data after 1988, as they are not available.

F 3.1.6 Expenditure on food, hygiene, standards monitoring

F 3.1.7 Control of drinking water, environmental surveillance

OECD 1998

Other health expenditure

Relevant expenditures are defined as monitoring cost of veterinary and other inspectorates designed to implement environmental and hygiene standards.

OECD Proposal

The following section gives the definitions as presented in the OECD Proposal, which correspond to DHA code F3.1.

Collective health services

Collective health services include services designed to enhance the health status of the population as distinct from the curative services, which repair health dysfunction. Typical services are vaccination campaigns and programmes. With the shift of emphasis from infectious disease to chronic conditions and the specific demand of ageing populations, the latter play an increasingly important role. Collective health services are separated into health promotion and disease

prevention and other collective services.

Health promotion and disease prevention

Health promotion and disease prevention presents a difficult boundary issue for which no international classification exists. The boundaries drawn in national health accounts are usually linked to the identification of specific programmes of screening and health check-ups with a legally or administratively defined, limited coverage reimbursed separately under public or private health schemes. Examples are screening of blood pressure, diabetes, certain forms of cancer, dental health, and "health check-ups".

Prevention is in many instances a reason for encounter and not a separate procedure. This means that the same procedure (for example many diagnostic procedures) can be either performed as preventive measures for screening purposes or as diagnostic procedure in the case of an acute health problem. The criterion for including services under this item, is whether prevention is provided as social programme (public or private, including occupational health) or is requested on the patient's own initiative. The range of these activities includes essentially the following items.

Maternal and child health; family planning and counselling

Maternal and child health covers a wide range of medical services: genetic counselling and prevention of specific congenital abnormalities, prenatal and postnatal medical attention, well-baby health care, pre-school and school child health.

Prevention of communicable diseases

This item *includes*: Compulsory reporting/notification of certain communicable diseases and epidemiological enquiry of communicable disease; efforts to trace possible contacts and origin of disease; prevention of tuberculosis and tuberculosis control (including systematic screening of high risk groups); immunisation/vaccination programmes (compulsory and voluntary); vaccination under maternity and child health care. *Excludes*: vaccination for occupational health; vaccination for travel and tourism on the patients' own initiative.

Interventions against smoking, alcohol and drug abuse

Includes activities of community workers; Excludes: activities of self-help groups.

Prevention of other non-communicable diseases

Includes centres for disease surveillance and control; programmes for the avoidance of risks incurred and the improvement of the health status of nations in general, general health education and health information of the public, health education campaigns; campaigns in favour of healthier life-styles, safe sex etc.; information exchanges: *e.g.* alcoholism, drug addiction; environmental surveillance and public information on environmental conditions. Excludes activities of self-help groups, and health education campaigns of self-help groups;

Food hygiene control

Monitoring of veterinary and other inspectorates designed to implement food hygiene standards.

Control of drinking water, environmental surveillance

Excludes fluoridation of drinking water.

Discussion

Distinction between personal and collective health services may often be blurred as in the case of MCH and family planning services. Nevertheless, the new OECD proposal presents a more comprehensive and clear categorisation of these collective health services, and it is recommended that the Hong Kong's DHA be based on these.

F3.2 Other collective health services

F3.2.1 Occupational health care

OECD 1998

Defined under "other health expenditure", and includes expenditures incurred by employers on or off-business premises for the surveillance of employee health and therapeutic care.

Canada

Expenditures to promote and enhance health and safety at the workplace and to provide emergency care in the event of injury at work.

OECD Proposal

Occupational health care is only part of a broader range of activities that aim at improving working environment in its relation to health. Occupational health activities to improve ergonomy, safety and health and environmental protection at the workplace, accident prevention etc. are distinguished from occupational health care. They are not recorded under medical care activities.

F4 Health programme administration and health insurance

OECD 1998

Expenditure by private insurers and by central and local authorities including social security in the planning, management, regulation, collection of funds and handling of claims of the delivery system. The expenditure by private health insurance companies is usually the difference between revenue from premiums and claims' benefit. Therefore, this estimate may include a "technical reserves and profits" element.

Canada

Only the administrative cost of providing insured health services by either governments or private health insurance firms is included. General administrative expenses of government health departments, other than for insured health services, are classified as PUBLIC HEALTH and are not included here. For private health insurance firms, prepayment administration is usually the difference between premiums received and claims paid. For insurance plans offering administrative services only, the amount reported is the payment for administrative services.

United Kingdom

Financial-year data from central administration (revenue expenditure), regional health authorities, district health authorities and Family Practitioner Committees. HQ administration (including Regional and District Health Authorities) accounts for approximately 4 % of the total expenditure on the hospital and community health services. Reported data do not include the cost of administration at unit level.

United States

This category of expenditure is broken into three parts. The largest part comprises the difference between earned premiums and incurred benefits of private health insurers. This difference, which accounts for administrative costs, net additions to reserves, rate credits and dividends, premium taxes, and profits or losses, is estimated separately for the various types of insurers. The next largest part comprises the administrative expenses of government programmes. The smallest part comprises the expenses associated with health activities of philanthropic organisations.

OECD Proposal

Health programme administration and health insurance are activities of private insurers and central and local authorities, and social security. Included is the planning, management, regulation, collection of funds and handling of claims of the delivery system. The expenditure by private health insurance companies is usually the difference between revenue from premiums and claims' benefit. Therefore, this estimate may include a "technical reserves and profits" element. This item excludes: public security; law and order activities; fire service activities; and defence activities.

Health related functions

F5 Investment in medical facilities

OECD 1998

Total investment in medical facilities

The sum of capital outlays earmarked for:
a) hospitals, clinics, health centres and related buildings
b) medical equipment, including first-aid stations.

The exclusion of capital expenditure, as is done in many countries' presentation of health expenditures, underreports the level of total expenditures, but if the latter is calculated as the sum of subfunction expenditures along with depreciation allowances, there could be a double counting. A full-cost method of accounting for capital expenditure, i.e., capital expenditures are counted in full at the time the expenditures are incurred is recommended

Canada

Capital expenditures pertain to hospitals and nursing homes and are counted in full at the time the expenditures are made (full-cost accounting). They include the cost of procuring, constructing and installing new facilities and machinery and equipment, whether for replacement of worn or obsolete assets, or as additions to existing assets.

- Includes all capitalised costs such as feasibility studies, architectural, legal, installation and engineering fees, as well as capitalised interest charges on loans with which capital projects are financed.
- Construction expenditures exclude the purchase price of land but include outlays for land servicing and site preparation.

United Kingdom

Total Investment on Health reported as data for Gross Domestic Fixed Capital Formation (GDFCF) on all fixed assets for 'Health and Social Work', as given in the national income accounts.

United States

- The construction component of the national health accounts is limited to the value of new construction put in place for hospitals and nursing homes. Estimates are taken from the Bureau of the Censuses C-30 survey of new construction. The measure includes new buildings ; additions, alterations, major replacements, and so on ; mechanical and electrical installations ; and site preparation.
- Maintenance and repairs are excluded, as are non-structural equipment such as X-ray machines and beds. Also excluded are producers' durable equipment (PDE) : X-ray equipment, computers, etc.

OECD Proposal

Total investment into medical facilities defined as sum of gross fixed capital investment into the institutional units listed under the ICHE-HP classification, regardless of public and private ownership.

Discussion

OECD 1998 ignores depreciation in estimating investment expenditure, as do virtually all countries when estimating public sector expenditures. There is a difference in the classification of expenditures on plant and equipment in the government budgetary accounts and that used by HA. However, since bulk of such expenditures is by HA, it is more feasible to use the definition of such expenditures used by HA in its own accounting system.

It was decided by responsible task groups of Hong Kong SAR Government that HA's accounting policy on capitalisation – cut-off values of $100,000 – would be disregarded so as to be in line with the accounting practices of government departments.

F6. Expenditure on health education and training

OECD 1998

Includes expenditures reported by central and local governments for the training of health workers. Complete costs would include expenditures for universities and other training institutions. Salaries of medical interns and residents or nurse trainees are included as institutional expenditures for services rendered, not as training expenditures.

OECD Proposal

Education and training of health personnel includes expenditures reported by central and local governments for the training of health workers, including outlays by private institutions, such as nurses schools run by private hospitals. Salaries of medical interns and residents or nurse trainees are included as institutional expenditures for services rendered, not as training expenditures.

F7 Health Research & Development

OECD 1998

The basic definition of biomedical research comprises:

1) The study of specific diseases and conditions (mental or physical), including detection, cause, prophylactics, treatment and rehabilitation of persons ;
2) The design of methods, drugs and devices used to diagnose, support and maintain the individual during and after treatment for specific diseases or conditions ;
3) The scientific investigation required to understand the underlying life processes which affect disease and human well-being, including such areas as cellular and molecular bases of diseases, genetics, immunology.

Expenditures include research with the objective of:

1) The improvement in the health status of the population,
2) Cost effectiveness in the delivery of preventive and therapeutic goods and services towards that end.

Excludes outlays by pharmaceutical firms.

Canada

Total expenditure on health R&D

The data represent expenditures for research activities intended to improve the health status of the population, or to increase efficiency in the delivery of preventive and therapeutic services. The data exclude expenditures for research carried out and funded by hospitals and by drug or health care appliances companies in the course of product development. These expenditures are included respectively under the categories HOSPITALS, PHARMACEUTICAL GOODS, and THERAPEUTIC APPLIANCES.

Japan

Total expenditure on health R&D

- Total = Research institute (owned by central government, local government, and private institutes) + Universities and College (national + public + private).
- Does not include Pharmaceutical industry expenditure on R&D.

United States

Includes activity carried out by non-profit or government entities. Not included are R&D expenditures by drug manufacturers

OECD Proposal

This recommends use of the Frascati Manual, which is an internationally agreed methodology for measuring research expenditures in countries, and published by OECD.

Expenditures are defined as expenditure for R&D programmes directed towards the protection and improvement of human health. It includes R&D on food hygiene and nutrition and also R&D on radiation used for medical purposes, biochemical engineering, medical information, rationalisation of treatment and pharmacology (including testing medicines and breeding of laboratory animals for scientific purposes) as well as research relating to epidemiology, prevention of industrial diseases and drug addiction.

In university hospitals where, in addition to the primary activity of healthcare, the training of medical students is of major importance, the activities of teaching, R&D and advanced as well as routine medical care are frequently very closely linked. "Specialised medical care" is an activity which normally is to be excluded from R&D. However, there may be an element of R&D in what is usually called "advanced medical care", carried out, for example, in university hospitals. It is difficult for university doctors and their assistants to define that part of their overall activities which is exclusively R&D. If, however, time and money spent on routine medical care are included in the R&D statistics, there will be an over-estimate of R&D resources in the medical sciences. Usually such advanced medical care is not considered R&D and all medical care not directly linked to a specific R&D project is excluded from the R&D statistics.

R&D in health, when measured according to the rules of the Frascati Manual, exclude outlays by pharmaceutical firms, shown separately.

Activities of R&D in health care exclude all education and training of health personnel in universities and special institutions of higher and post-secondary education. However, research by postgraduate students carried out at universities and university hospitals in medical sciences are counted, wherever possible, as part of R&D in health care.

F8 Expenditure on environmental health

OECD 1998

Although not included in total expenditure on health, this entry measures investments and operating outlays on air cleaning and water treatment programmes largely determined on grounds of better health.

OECD Proposal

This notes that there is no agreed international standard definition of expenditures on environmental health, and instead proposes to sum up various items under COFOG functions 08 Housing and Community Development and 09 Environment Protection. It also note that the control of environmental hazards, in particular water and sewage treatment, have been among the most important determinants of population health. Air pollution abatement, used water treatment, the disposal or recycling of solid waste have important spill-over effects on health. However, from a theoretical point of view, environmental health does not constitute a medical care function as it is not distinct from other public functions such as general public safety, or law-and-order which contribute to the health status objective. In many countries, the responsibility for environmental health does not usually lie with Ministries of Health. Separate accounting systems, such as satellite systems for environmental accounting have been installed in many OECD countries for monitoring societies' resources devoted to environmental protection as well as and for estimating and evaluating improvement or decline of the environment. Nevertheless, for international comparison, a set of consistent indicators showing expenditure functions of environmental protection (including water supply) relevant for population health, would be a valuable complement of a system of Health Accounts.

F9 Administration and provision of cash benefits

OECD 1998

Sickness benefits in cash includes the upholding of earnings/income (benefits attributed in case of illness absenteeism from work and equivalent to the full revenue), day indemnity (benefits, contract or proportional to the income, in order to partially replace the earnings/income lost with the suspension of the professional activity due to illness), and other benefits in cash linked to the receiver health status.

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