Motivation for the training, registration and employment of a new category of worker provisionally designated a primary care clinician to work primarily in a primary care setting[1]

Effie Schultz June 1996 edited December 2001

Reasons for the motivation

- shortage of clinicians working in primary care
- specific primary care competencies required
- need to rapidly train many clinicians to work in primary care
- the training of more PHCNs would be inappropriate, nor the upgrading or use of nurses as nurse practitioners because:

  i their training and experience as nurses usually in an in-patient setting is not relevant to primary care practice

  ii the strict discipline to which they are subjected and the subservient role they usually adopt as nurses re-enforces a mind-set different to the one that is needed in primary care (taking responsibility and showing initiative)

  iii registered nurses from whose ranks PHCNs and other nurse practitioners are usually drawn should stay in the fields in which they were trained and have experience and in which they are eligible for promotion (not available for PHCNs). These ranks should not be depleted of its (often) most competent members.

  iv the high rate of attrition among PHCNs suggests that many may not like their jobs. Their recruitment when relatively old also finds many now of pensionable age.

  v their total training period is too long even for those (few) who only have midwifery as an additional qualification.

  vi because PHCNs perform the same functions as doctors they should be registered with the PHCSA and belong to the MASA. It is anomalous for them to be considered to be nurses, to registered and controlled by the Nursing Council and to belong to the SA Nursing Association.

  vii The relationship of PHCNs with senior members of the nursing profession is also anomalous. Do they take orders from matrons as other nurses do or are they members of a primary care team with a non-nursing responsibility?

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1 definitions on page 36

Areas of operation - at personal care level only

the 4 Ps:

- health **p**rotection
- health promotion
- disease prevention (primary, secondary and tertiary)
- palliation

the 4 Cs:

- **c**ure of disease
- **c**ontrol of disease
- convalescence
- care – TLC {tender loving care)

the 2 Rs

- rehabilitation
- remediation

Scope of practice of primary care clinicians

Primary care clinicians will:

- attend to <u>personal</u> medical needs
- work in an out-patient setting and do house-calls
- care for patients suffering from uncomplicated common conditions
- prescribe and dispense medicines
- perform minor surgical procedures appropriate to an out-patient setting
- monitor normal pregnancy
- act as gate-keepers for doctors, therapists and other service providers

Primary care clinicians will NOT:

- attend professionally to community or public health needs
- work in an in-patient setting
- care for patients with complicated conditions
- perform abortions or assist in birthing (deliveries)

Competencies of Primary Care Clinicians

non-clinical: understanding people and society
English language and mathematics
collecting and evaluating data, needs, outcomes and performance
counselling, communication and management

nutrition, dietetics, home budgeting and cooking
achieving and maintaining own health

clinical: first aid, emergency and "home/self" care
infant, child, adolescent and geriatric health
reproductive, family, and occupational health
etiology and diagnosis of common diseases
performing selected medical procedures and tests
assessing patients for referral - screening and gate-keeping
prescribing dispensing and administering selected medicines
personal health education and disease prevention

Entry criteria English language proficiency + grade 12 certificate
Course duration 3 years full-time

Training sites

theoretical: medical schools, schools of health sciences
practical: accredited service sites (diverse or customised)

Curriculum level appropriate to primary care only

non-clinical: language, literature and mathematics
learning, counselling, communication and management
nutrition, dietetics and home economics
epidemiology, biostatistics and medical informatics
social anthropology, local history, demography and ecology
psychology and sociology of violence and substance abuse, dependency, disability, disease and death
family dynamics, parenting, medical ethics and law
physical fitness training and relaxation techniques

clinical: as for medical students, but also including:
first aid, emergency and "home/self" care
point of care tests and clinical monitoring
prescribing, dispensing, issuing and/or administering medications
personal health education, disease prevention and dental hygiene

Teaching methods

theoretical: interactive, participatory, not rote
practical: experiential under supervision

Qualification degree
Registration with the HPCSA

Job opportunities

- public and private health centres and clinics
- hospital out-patient clinics (if they continue to exist)
- private primary care practice
- managed care organisations

Career development

within primary care: specialisation with diplomas in inter alia:

- OH occupational health/hygiene
- STD sexually transmitted diseases
- CDC chronic disease care
- PH public health and health inspection
- HE health education
- Mx management and administration

beyond primary care: upgrading (with degrees) to inter alia:

- MB BCh medical practitioner
- MPH master in public health

Upgrading to PCC status

Primary health care nurses, other nurses acting as clinicians, medical auxiliaries, ...

depending on qualifications and experience via:
granny clauses or bridging courses.

Motivation for the training, registration and employment of a new category of worker to work in a primary care setting.

NBD Magobe, E Schultz, M Sefoka.
January 2000; edited December 2010.

Reason for the motivation

There is a shortage of doctors and nurse practitioners[2] in primary care in the public sector in urban and rural areas and in the private sector in poor, rural areas. This situation is unlikely to change within the current human resource paradigm.

It is therefore proposed that a new category of medical service provider, here provisionally designated a primary care clinician (PCC), should be trained and deployed to meet the need for medical personnel in the medium and long-term.

Proposals for the role, scope of practice, competencies, training, recruitment, registration, career development, job opportunities and title of primary care clinicians are outlined. The advantages of this category of service provider are listed and their relationship with other medical service providers is considered. Reasons for not recommending doctors and nurse practitioners as a medium to long-term solution are presented. Short-term primary care human resource options are noted.

Definition of a primary care clinician

A primary care clinician is defined as a medical service provider with clinical skills who is registered with the Medical and Dental Professional Board (MDPB) of the Health Professions Council of South Africa (HPCSA) to work in primary care only. A primary care clinician will be a medical practitioner and not a nurse practitioner.

Role of primary care clinicians

The role of primary care clinicians will be to:

- protect health and prevent disease
- cure disease where possible
- control disease where cure is not possible
- promote convalescence and rehabilitation
- reduce pain and distress.
- provide first aid and emergency care

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2 any nurse whether trained or not who provides a medical service like a doctor does - including a PHCN

Scope of practice of primary care clinicians

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- monitor normal pregnancy
- act as gate-keepers for doctors, therapists and other service providers

Primary care clinicians will NOT:

- attend professionally to community or public health needs
- work in an in-patient setting
- care for patients with complicated conditions
- perform abortions or assist in birthing (deliveries)

Competencies of primary care clinicians

non-medical:	understanding people and society[3]
	language and numeracy skills
	collecting and evaluating data
	communication and patient counselling techniques
	nutrition, dietetics and home budgeting
	achieving and maintaining their own health
medical:	diagnosing and managing common diseases
	prescribing and dispensing medicines
	referring patients to other levels of care and other disciplines;
	infant, child, adolescent and geriatric health
	reproductive, family, and occupational health;
	first aid and emergency care

Features of primary care clinicians

1 training:

entry criteria:	English language proficiency + grade 12 certificate
selection criteria	social, personal and academic
course duration:	3 years full-time

3 see Critical Outcomes in National Qualifications Framework (NQF) structures - emphasis on social and family dynamics, the psychology and sociology of sexuality, violence and substance abuse, the social and economic determinants of health and disease, …

curriculum	scientific, experiential and community-based
training sites	
theoretical	medical schools
practical	accredited service sites in rural and urban areas
qualification:	bachelor degree
internship:	1 year

2 student recruitment

Becoming a primary care clinician could be an option for any person who:

- wants to be a primary care clinician and not a nurse or a doctor
- wants to become a doctor but

  cannot afford to do so
  has not obtained the required academic entry qualifications
  does not get a study placement (more applicants than posts)

Selective recruitment can be used to prevent uneven geographic distribution of primary care clinicians. Applicants from under-served areas can be preferentially recruited. To encourage students to work in under-served areas after graduation, they can be sponsored and supported by communities and the state with contractual bursaries and social contracts.

3 registration:

Primary care clinicians will be registered with the Medical and Dental Professional Board of the Health Professional Council South Africa.

4 South African Medical Association and Medical Protection Society

Because primary care clinicians will be registered with the Medical and Dental Professional Board they will be eligible for membership of both these organisations and will be able to benefit from the same support and protection as doctors.

5 Job opportunities

- public and private health centres and clinics
- hospital primary care out-patient departments
- private primary care practices

6 Career development

within primary care:

specialisation with diplomas, for example in:	paediatrics
	reproductive health

mental health
occupational health

beyond primary care, for example:

- MB BCh medical practitioner
- MPH Master in Public Health

7 Re-grading of nurse practitioners and other health professionals to primary care clinician status

The applicants will be required to meet the standards prescribed by the HPCSA within the National Qualifications Framework (NQF) structures in respect of:

- prior learning
- academic qualifications
- duration, content and relevance of experience
- the successful completion of bridging courses and challenge examinations

8 title

In order to distinguish primary care clinicians from doctors with their MB BCh degrees, primary care clinicians will not be allowed to use the title of doctor (Dr).

Advantages and benefits

for primary care clinicians:

1. there will be a career ladder
2. there will be job opportunities

3. Because their status and scope of practice will be clearly defined and recognised, there could be:

    - a good reciprocal relationship with other health professionals
    - explicitly defined remuneration in the public sector

4. Because their qualifications will be accredited, they will:

    - be expected to maintain high standards
    - be expected to follow a strict code of professional ethics
    - be expected to comply with CPD (continuing professional development) requirements as a condition of continued registration with the MDPB
    - be held accountable by a professional body for their acts and omissions

5. When many primary care clinicians have been trained the shortage of skilled medical service providers would be reduced. This is likely to result in:

- an appropriate patient-load with enough time to spend with each patient
- job satisfaction and high work-place morale
- little work strain and low human resource attrition

for other health professionals:

1. Nurses and other health professionals will be able to regrade to PCC status.

2. Because the recruitment pool for primary care clinicians will be large, there will be less pressure on registered nurses to become nurse practitioners. As a result more nurses will remain in nursing and among nurses there could be:

   - less work-strain and burn-out
   - job satisfaction and high morale
   - few resignations and premature retirements

3. The same could apply to general practitioners in the public sector. In addition their jobs are unlikely to be challenged by primary care clinicians because:

   - general practitioners in primary care attend to patients with complicated conditions which will be beyond the scope of practice of PCCs
   - general practitioners work mostly in wards where primary care clinicians will not be allowed to work

4. General practitioners' income in the private sector in rural areas is unlikely to be threatened by primary care clinicians because:

   general practitioners in non-metropolitan areas derive a large proportion of their income from in-patient care, deliveries and surgery, fields not open to primary care providers.

5. Medical specialists may benefit from having

   - a larger pool of referring medical service providers
   - possibly more selective and appropriate referrals
   - perhaps even less buck-passing

for medical services as a whole:

Medical services at all levels of care in both the public and private sectors are likely to improve when enough primary medical service providers are appropriately deployed in all parts of the country.

for patients:

The objective of the Alma Alta Declaration of making available to everybody appropriate, affordable, linguistically accessible and culturally acceptable primary care will be closer to being achieved.

Specifically, in the public sector there could be:

- short queues and prompt service
- enough time for consultation and care
- a good patient-care provider relationship

In the private sector there could be more primary medical care providers for patients to chose from, with possibly an increase in the quality of care.

for the country in general:

- an effective medical service
- less disease and improved health
- new employment opportunities for matriculants
- a new affordable career option
- a lower medical emigration rate (manpower and financial drain)

Implementation and time constraints

If this motivation is accepted for consideration the following phases are assumed:

- review of the motivation
- preparation of detailed recommendations and their acceptance
- passage of enabling legislation
- establishment of training infra-structures **
- implementation of training **
- creation of posts and the employment of trained PCCs.

** These could be implemented with little delay because:

- medical student curricula could be adapted to PCC specifications
- there are enough training institutions4 and practice sites in the country
- the cost of implementation is not prohibitive
- there are many people interested in and eligible for training
- there are many nurse practitioners and other health professionals who would be interested to regrade to PCC status.

Other medium to long-term human resource options

Other categories of health professionals are unable on their own to meet the medium to long-term primary care needs of all South Africans adequately and appropriately.

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4 Existing medical schools could accommodate extra PCC students but not more medical students. Medical students need big and expensive laboratories for practical pre-clinical training whereas PCC students do their practical training in the community.

doctors

1. Enough primary medical service providers cannot be recruited from among new South African medical graduates because:

    - there are not enough training institutions[7] in the country
    - academic entry criteria are very high
    - the training period + internship is very long (7 years)
    - the course is too expensive for most applicants and the country

2. The short-fall in primary medical service providers in under-served areas cannot be made good by voluntarily relocated South African medical practitioners, even if the reasons for the poor response to past appeals are removed because there will not be enough of them.

3. Conscripted South African registered medical practitioners brought about by licensing private general practice is not a sustainable long-term option and may be unconstitutional. In addition:

    - there will not be enough of them
    - specialisation and emigration are attractive and feasible alternate options

4. Foreign-born doctors would have to become South African citizens and undertake to remain in primary care in under-served areas. In addition:

    - there will not be enough of them
    - they may be inappropriately trained
    - they are likely to be unfamiliar with local culture and language/s
    - registration with the HPCSA may be difficult
    - restricting them to working in primary care and in under-served areas will not be sustainable and may be unconstitutional
    - relationships with other countries, whose medical graduates South Africa could be construed to be poaching, could be compromised

nurses

1. Enough primary medical service providers cannot be recruited from among new primary health care nurse (PHCN) graduates because not enough registered nurses can be trained to become PHCNs. In addition:

    - the basic training and experience of nurses, usually in an in-patient setting and with minimum exposure to primary care, is not appropriate
    - the total period of training is very long - at least 7 years (4 years basic nursing education, 2 or more years working experience, several years post-basic training in a speciality and then 1 - 2 years PHCN training)
    - registered nurses should not be removed from nursing
    - the rate of attrition is likely to be high if the current conditions of registration and employment continue to apply

2. The fast-track training and employment of registered nurses as nurse practitioners is not a medium or long-term option because in addition to the reasons in 2.1 above these medical service providers may not be competent to function independently and safely.

3. The re-employment of PHCNs and other nurse practitioners who are not currently practising cannot contribute to a medium or long-term solution. Those who retired early or resigned may be too old by then. Even if all the rest return to work there will not be enough to meet the need.

4. While the use of nurses, both registered and unregistered, is often resorted to, it cannot be a medium or long-term medical human resource option.

other categories of health professionals

1. The use of pharmacists, environmental health officers and other health professionals whether specifically crash-trained in primary medical care, or not, cannot constitute a medium or long-term solution. Similar reasons as those cited in 2.1 and 2.2 above apply.

2. The reservations on foreign doctor recruits (1.4) are relevant also to medical auxiliaries and nurse practitioners recruited from other countries.

Short-term options

doctors

1. voluntary relocated registered medical practitioners

   Few medical practitioners are prepared to relocate voluntarily to under-served areas even on a short-term basis. The causes for this should be remedied. They include:

   - poor working conditions
   - inadequate remuneration
   - inefficient referral networks
   - insufficient academic and specialist support

   In poor rural areas the additional causes of a low relocation rate should also be removed or at least reduced. These include:

   - poor communication services
   - inadequate transport facilities for patients and staff
   - inhospitable living conditions
   - unpalatable, tasteless and unhealthy catering
   - limited access to recreational and education facilities

There should be specific incentives to encourage the employment of medical practitioners in the public sector such as:

- flexi-time and part-time employment
- hospitable working hours
- good child care facilities
- subsidised, dedicated and safe transport to and from work
- opportunities for in-service CPD

The under-supply of private medical practitioners in poor rural areas is in part also attributable to the above.

2. conscripts

• before qualification	as a requirement for a bursary
• recently qualified medical practitioners	as part of community service
• registered medical practitioners	as a CPD or licensing requirement
• applicants for specialist registration	as a requirement for registration
• foreign-trained SA doctors	as a requirement for registration
• immigrant doctors	as a requirement for citizenship

3. retired, retrenched or otherwise non-practising or unemployed (especially mothering female) doctors

4. foreign recruits

other health professionals

Consideration should be given to the establishment of an interim body within the HPCSA to regulate in the short-term the scope of practice, training, registration and practice of medical service providers who are not registered with the MDPB.

This body could also address some of the causes of the current disaffection experienced by nurse practitioners, such as:

- legal limitations to the right to prescribe medicine
- problems with annual licensing and practice authorisation
- inadequate protection against medical malpractice litigation
- legal limitations to the right to practice in the private sector

1. nurse practitioners

Nurse practitioners who could work in under-served areas include:

- voluntarily relocated or conscripted practising nurse practitioners
- currently unemployed or non-practising nurse practitioners
- registered nurses who have successfully completed a fast-track training course in primary medical care, provided that:

- they are not coerced into becoming nurse practitioners
- they voluntarily and formally undertake to upgrade to primary care clinician status when facilities become available
- their training and practice is sanctioned by the HPCSA.

The need for improvements in the working and living conditions in under-served areas and for incentives noted for medical practitioners also applies. In addition the other causes of the current alienation of nurse practitioners will have to be removed or reduced. These include:

- very high work-load and responsibility
- remuneration not commensurate with training and duties

2. pharmacists, environmental health officers and others

They could be offered the same opportunity for fast-track training as registered nurses and under the same conditions before serving as temporary primary medical service providers.

Conclusion

The training and employment of primary care clinicians as defined and with the described attributes is the preferred medium and long-term option to meet the shortage of medical service providers in primary care in South Africa. Their number could be supplemented by willing and able doctors.

Several short-term human resource options are noted without endorsement.

ADDENDUM

Health educators

Lay and professional health educators can help to promote and protect health and prevent disease. They could empower people to self-manage some diseases and disabilities. By reducing the burden of disease and by facilitating the appropriate use of medical services they could ease the human resource supply situation at every level of care.

Motivation for the development and recognition of a new post-graduate medical sub-specialty in chronic disease care for different categories and grades of care-givers.

Effie Schultz June 1996 edited December 2010.

Reasons for the motivation

- chronic conditions are common - and prevalence is increasing
- chronic diseases and their complications are often clustered into syndromes (eg hypertension + diabetes, TB + AIDS, …)
- management principles for effective chronic disease control are similar irrespective of the features of individual diseases
- a non-drug programme to achieve a healthy lifestyle (way of living) is crucial in the management of chronic diseases
- management of chronic conditions should be streamlined with an increase in efficiency and effectiveness
- control of chronic conditions is predicated on excellent compliance with all management recommendations. Measures to improve compliance can best be implemented by appropriately trained medical care providers. They include:

    i. establishing and maintaining a relationship of trust and respect between the patient and the care-provider

    ii. providing correct information to the patient on the disease, its causes, its complications and its comprehensive management

    iii. encouraging and re-enforcing the implementation of appropriate adjustments in the patient's attitude and in behaviour

    iv. facilitating inter-patient interaction and support

    v. patient participation and empowerment

- the long, often interminable, duration of chronic diseases and the frequent dependency of the patients obliges the medical care provider to be especially patient, empathetic and tolerant of the patients and their family and carers.

Areas of operation - at personal care level only

the 4 Ps:

- health **p**rotection
- health promotion
- disease prevention (primary, secondary and tertiary)
- palliation

the 2 Cs:

- cure of disease
- control of disease

the 2 Rs

- rehabilitation
- remediation

Scope of practice of chronic disease care providers

Chronic disease care (CDC) providers will provide personal medical care to patients suffering from common chronic diseases in addition to services in the other medical discipline/s in which they are trained. They will only consult and advise on public health issues, but NOT act in a professional capacity in the public health domain .

Competencies of chronic disease care providers

non-clinical: understanding people and society
collecting and evaluating data, needs, outcomes and performance
counselling and communication
nutrition, dietetics, home budgeting and cooking
achieving and maintaining own health

clinical: with reference only to common chronic diseases and
within the limits of their registered basic qualification/s

patho-physiology, pharmacology, etiology and diagnosis
point of care tests and clinical monitoring
prescribing, dispensing, issuing and/or administering medications
personal health education and disease prevention

Disciplines which could support a chronic disease care sub-specialty

- primary care and family medicine
- internal medicine, occupational health,
- cardiology, endocrinology, nephrology, neurology
- geriatrics and psychiatry
- dietetics
- pharmacology
- health education
- health inspection
- community health work

Entry criteria certificate, diploma or degree in any of the above disciplines
Qualification certificate or diploma

Course duration

For a certificate: =/> 200 hours with 80 hours = practical modules
For a diploma:

- 1 year full-time of which 1 month = practical modules
- 1 year in 4 modules of 5 days duration (or at least 20 days) or 1 year of at least 300 hours, apportioned to suite participants with 120 hours = practical modules

Training sites

for degree holders

theoretical: medical schools, schools of health sciences
practical: accredited service sites (diverse or customised)

for other students

theoretical and practical training: accredited IN-service situations

Curriculum

level will depend on prior qualifications.
relevant to common chronic conditions only

non-clinical: counselling and communication skills
nutrition and dietetics
epidemiology and medical informatics
social anthropology, local history and ecology
psychology and sociology of violence and substance abuse, dependency, disability, disease and death
family dynamics, medical ethics and law
physical fitness training and relaxation techniques

clinical: etiology, pathology and clinical features
pharmacology and intermediate medical technology
dental hygiene, geriatrics and “home/self” care
physiotherapy and psychotherapy
health education and disease prevention

Teaching methods

theoretical: interactive, participatory, not rote
practical: experiential under supervision

Registration the same body as the original discipline

Job opportunities

as a clinician with increased CDC competence or
as a team member in a CDC programme in

- public and private (managed care) health centres and clinics
- hospital out-patient clinics
- private primary care practice

as a manager of a CDC programme in a service institution, NGO or government establishment at a personal care level

Relations with other medical care providers

- complementary, co-operative, interactive interdependent;
- senior in chronic disease care situations to those with the same training and status but without the CDC qualification.

Upgrading of people currently active in CDC

Clinicians, nurses, lay health workers, ...

depending on qualifications and experience via:
granny clauses or bridging courses.

Motivation for the training, registration and employment of a new category of worker provisionally designated a health educator to work primarily in a primary care setting.

Effie Schultz June 1996 edited December 2010.

Reasons for the motivation

- to fill the gap created by the destruction of traditional sources of knowledge on health and disease (folk medicine)

- poor access to accurate, appropriate, unbiased information among the general public because of:

  i illiteracy, poverty
  ii conflicting mass media messages
  iii pressure from consumer lobbies for unhealthy eating and unhealthy behaviour patterns (arm-chair couch-potato sport, substance abuse, medicalisation, violence, permissiveness/promiscuity, ...)

- to empower people with knowledge so that they can (again) take informed decisions on, and responsibility for, their own health and disease and for the health of the public through civic lobbying and advocacy campaigns

- to improve individual and public attitudes and behaviour on the determinants of health and disease

- to empower people with appropriate self-care skills

- to counteract the dependency on medication

- to provide individual and group education on the general and specific determinants of health and disease complementing and supplementing that provided by clinicians because there are/may be de facto and legal constraints on their time and competence

- to rationalise and formalise the status and qualifications of people working in health education such as community health workers, lay health workers, …

Areas of operation - at a personal and public level

the 4 Ps:

- health **p**rotection
- health **p**romotion
- disease **p**revention (primary, secondary and tertiary)
- **p**alliation

the 4 Cs:

- **c**ure of disease
- **c**ontrol of disease
- convalescence
- care – TLC {tender loving care)

the 2 Rs

- **r**ehabilitation
- **r**emediation

Competencies of Health Educators

Health educators need public credibility for their advice to be followed. This credibility will be enhanced by good interpersonal relations, accurate medical knowledge and by being a good role model.

non-clinical: understanding people and society
accessing social, civic and state support and technical aids
collecting data and evaluating information, needs and outcomes
communication and counselling
home budgeting, cooking and vegetable-gardening
achieving and maintaining own health

clinical: first aid and emergency and “home/self” care
etiology and diagnosis of common diseases and mental disorders
issuing and administering selected medications
performing selected surgical procedures and tests
assessing patients for referral - screening and gate-keeping
health promotion and protection and disease prevention

Entry criteria

- tolerance, empathy and honesty
- entrepreneurial potential (take initiatives)
- social concern
- commitment to local community

3 streams:

A any or no (including illiterates) academic qualification

B prior qualification in any of the following disciplines:

- all branches and levels of nursing and medical care
- dietetics, all branches of dentistry and pharmacy
- health inspection and occupational health/hygiene
- physiotherapy, occupational therapy, psychology, optometry, ...

C prior qualification in any of the following disciplines:

- homeopathy and other forms of complementary medicine, beauticians and the whole host of similar groups
- education (teachers), and social work and
- any discipline caring for people.

Training sites

There are several options - choice will depend on:

- entry criteria (illiterate to post-graduate)
- current and/or future employment contract/opportunity/funding

theoretical instruction:

i full-time course at an academic or technical institution
ii full-time course at an accredited community health worker training institution or equivalent (if such exists)
iii modular courses at one of the above
iv long-distance course from one of the above

practical training:

i at several different accredited service sites (urban, rural, industrial, high-tech, low-tech, ...)
ii at one accredited service site only
iii at an unaccredited service site where currently employed - subject to strict supervisory control measures
iv any combination of the above

Note: For a degree it is necessary to take a full-time or long-distance course at an academic institution and to undergo practical training at different accredited service sites

Course duration

There are several options - choice will depend on:

- entry criteria
- training site
- anticipated outcome (qualification)

A and C first qualification in a health-related discipline

certificate:	at least 200 hours of which	150 hours	= practical modules
diploma:	at least 400 hours of which	240 hours	= practical modules
degree:	3 years full-time of which	6 months	= practical modules

B sub-specialty

diploma:	at least 300 hours of which	120 hours	= practical modules or
	1 year full-time of which	2 month	= practical modules

Curriculum level will depend on prior qualifications.

non-clinical: philosophy and methodology of pedagogy (education)
social work, counselling, communication and management
nutrition, dietetics and food preparation
home economics, food security and vegetable gardening
epidemiology, biostatistics and health informatics
social anthropology, local history and ecology
political economy, demography and local government
psychology and sociology of violence and substance abuse, dependency, disability, disease and death
family dynamics, parenting, medical ethics and law
physical fitness and relaxation techniques training

clinical: first aid, emergency and “home/self” care
etiology and diagnosis of common diseases and mental disorders
infant, child and adolescent growth and development
reproductive health and geriatrics
environmental and occupational health and hygiene
psychotherapy, physiotherapy and dental hygiene
pharmacology of OTC drugs and commonly abused substances
selected medical procedures and tests
measures to promote and protect health, and prevent disease

Teaching methods

theoretical: interactive, participatory, not rote
practical: experiential under supervision

Qualification

A	first qualification:	certificate, diploma or degree
B	sub-specialty:	certificate or diploma according to entry qualifications and course

Registration

A	first qualification:	according to qualification and legislation
B	sub-specialty:	the same as undergraduate qualification

Job opportunities

- public and private (managed care) health centres and clinics
- hospital out-patient clinics (if they continue to exist)
- private practice
- local authorities and other government departments (health, welfare, education, environment, water, housing, ...)
- schools and other educational institutions
- social welfare institutions/bodies
- environment protection agencies (when established)
- AIDS support groups, institutions and bodies
- SANTA and other TB control and support institutions/bodies
- industrial and commercial enterprises

Career development

within health education: specialisation with a certificate or diploma in inter alia:

- MCH mother and child health
- OH occupational health/hygiene
- STD sexually transmitted diseases
- CDC chronic disease care
- PH public health
- HI health inspection
- DH dental hygiene
- SS social science
- ME/L medical ethics and law
- GH geriatric health
- DR disability and rehabilitation

within and beyond HE: specialisation for a degree in inter alia:

- MPH master in public health
- MBA master in business administration
- PCC primary care clinician (via credits for upgrading)

Upgrading of people currently active in health education

Care group members, community health workers, community-based geriatric/rehabilitation workers, lay health workers, assistant nurses, traditional birth attenders, women's health project facilitators, ...

depending on qualifications and experience via:
granny clauses or bridging courses.

Meeting with the Directorate of Human Resources of the Department of National Health on 9 January 1997

(letter and comment)

Effie Schultz January 1997; edited December 2010

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15 January 1997

Dear Dr Hendricks,

Motivation for certain categories of medical service providers and medical specialities or sub-specialities

Proposals prepared by Dr Schultz for the training of primary care clinicians (PCCs), health educators (HEs) and chronic disease care (CDC) specialists were discussed.

I was disappointed that your directorate … had not prepared a response to my submission, and that I was asked to rehash in 20 minutes what was in the memoranda. Also disappointing was your comment on free medical services to young children and pregnant women. It was not relevant to our discussion, except as an example of bad planning and neglect of consultation in human resource management from which nothing had been learned as evidenced by a repeat (debacle) in April 1996 ... The argument … that the country can only afford to re-deploy nurses as PHCNs to fill the shortage of doctors is not valid.

The Alma Ata concept of PHC has not really worked anywhere in the world. Expecting PHCNs in this country, however well-trained in epidemiology etc., to be able to implement the social transformation implicit in PHC is unrealistic, particularly in view of the real demands put on all service providers for straight-forward clinical medical care. The DNH should restrict its work to medical service and cooperate with other public and private sectors and with civil society in improving the living conditions of all people in this country while constructively supporting the “Health Cities, Villages and Neighbourhood” movement.

Comment on the meeting

1 general considerations

It is necessary to have information on the pattern of morbidity so that appropriate decisions on services and personnel can be made. It is unrealistic to await data to be collected by the Directorate/s of Research, Evaluation and Informatics since most information system/s have not even been set-up. Available data must be used.

The motivations were directed at the training and employment of personnel in primary medical care (first contact personal medical care between a service provider and an individual) and not of people working in primary health care (PHC). The difference was noted but not explored.

PHC is a concept dependent on society for its implementation. Everybody working in the medical sector should be trained to be aware of the non-medical determinants of health and disease and be able to participate in, and empowered to co-ordinate their actions with, what is being done in other sectors and in civil society. Medical workers should however not be trained to operate in water, civil engineering (sewage and waste disposal), transport, energy, environment, etc.

There are other semantic issues that should not be allowed to undermine the thrust of the proposals. It was hoped that PCC would be a neutral and inclusive word referring to people with clinical and therapeutic skills at a lower technical level than doctors (with MB BCh degrees). No distinction was made between PCCs and medical auxiliaries, nurse practitioners or local PHCNs. Similarly, the Elim Care Group Workers, AIDS counsellors and the Amatikulu-trained community health workers etc. are all considered to be HEs. The word, medical, was used to refer to all interventions in disease management (the Ps, Cs and Rs in the memoranda) and not only to matters pertaining to doctors. But most importantantly medical service should not be called health care or health. Health is a state of being influenced by many factors and not something which the medical professions should usurp.

2 Reasons for the motivations

It is generally accepted that among the poor, particularly those in the rural areas, there is a shortage of primary medical care providers, especially doctors. It was proposed that this need be met with PCCs and HEs. And, because chronic diseases constitute a large proportion of the disease/patient load, it was further proposed that PCCs and HEs inter alia have an option to train in CDC as a speciality.

Doctors who cannot speak at least one SAn language are not a solution in primary medical care even in the short-term or as an emergency measure. Nor can the country afford to import such doctors in sufficient numbers now. Staff (usually untrained nurses) currently employed in state clinics as clinicians and health educators are from my country-wide observations and reading not providing safe and appropriate care and information. They usually do not therefore command the patients' and the community's respect and trust, critical in medical care.

3 Relationship between professions

The alleged clash between nurses and doctors is a bogey that should be put to rest. It does not emanate from the work-place but from bureaucrats (usually nurses) who sit in offices removed from reality. But there are personality differences often racially based which occur between members of the same profession as well as between those in different professions. PCCs, doctors, HEs and nurses etc. should and can work together in a cooperative effort on behalf of patients, contributing unique skills according to their training, experience and personality.

The concept of team work is very good, but in primary care the team should be small. In a contemporary primary care setting one care provider may embody the whole team or the team could comprise a clinician (doctor or PCC) and a HE. The hall-mark of good primary care is continuity of comprehensive care provided by trusted persons and/or teams within the limits of their competence to patients and their families.

4 Entry criteria, upgrading of qualifications and career development

There are apparently many unemployed nurses in the country. It is apparently also the opinion in the DNH that only these nurses should be used and/or trained to meet the current human resource needs in primary care. I suggest that the department first analyses why they left the profession. Do they no longer want to be nurses or would they return to nursing or go into other aspects of medical service if conditions of service are improved? There is also a high rate of attrition among PHCNs. They are becoming administrators, research workers, case managers in the private sector and many have taken early retirement. If they were younger and could “upgrade” to doctors, they might not have been lost to primary care.

Unemployed nurses who so desire could be preferentially invited to enrol in training courses for PCCs or HEs with credits for experience and qualifications without closing the door to new recruits.

5 Job opportunities

The private sector is interested in using PCCs and HEs particularly with CDC skills. PCCs may also be more appropriate than nurses as case managers. The DNH should investigate this and whether the private sector would be willing to contribute materially towards their training.

6 Training sites, course duration, curriculum, teaching methods

Training should provide graduates with diagnostic, therapeutic and communication skills to be safe and effective medical care providers, and to have the self-confidence and humility to inspire respect and trust.

The current method of selecting and training PHCNs should be evaluated. Selecting the best, most highly trained, and most experienced nurses to become cheap mini-doctors in their old age is wrong. Converting nurses into PHCNs critically aggravates the shortage in the hospital complement of nurses. The current trainer/trainee ratio is not cost-effective. Training should take place in large numbers in teaching institutions and not in small clusters in hospitals. In fact a crash course training hundreds of PCCs and HEs - with CDC competencies of course - is needed.

The current quality of PHCN training is not everywhere good. The proposed training of trainers is another nice concept that will not work if as is proposed nurses are used to train other nurses to be mini-doctors (PHCNs).

7 Registration of PCCs

PCCs should be registered by the same body that registers doctors and not by a nursing control body.

Meeting with Ms Thandi Manganye and Ms Rose Mdlalose of the Directorate of Human Resource Development on 39 March 2001

(arranged on the instruction from the Minister of National Health)

Effie Schultz March 2001; edited December 2010.

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1 the syllabus for PCC

What I put into the "presentations" reflect my emphasis on the humanities. From my perspective as a general medical practitioner what I learned from my experience in SAn politics and from reading history, selected novels, biography, epidemiology and sociology was more useful than my study of anatomy. Pathology, physiology and pharmacology are different. PCCs will not function as surgeons. The only surgery that they are planned to perform can be, and has been, performed by orderlies.

The syllabus for PCCs should not be geared towards the requirements for up-grading to medical practitioner status. This somehow implies that PCCs are second-class doctors. They are not. In a sense they are primary medical care specialists. Their up-grade course syllabus will have to be modular, up-grading the areas in which there is a need and crediting them with others. In practice I foresee a situation where they will then have to spend relatively more time in anatomy and other pre-clinical classes and laboratories with less time in the clinical and humanity courses in which they would have adequate theoretical and practical experience and credits.

I do not think that the course should be longer than 3 years. Some subjects could be abbreviated rather than removed. In my "slide" on syllabus I listed subjects that I thought were important, more as a framework for discussion than as anything definitive. I almost certainly omitted others that are important such as psychology.

2 student selection and race and/or class and income

While it is hoped that the majority of students will come initially from black (as opposed to white and including all shades of black) poor communities this should not be seen as imperative. The priority is to supply appropriately trained and competent medical service providers to the areas and people in need. Because at present the greatest need is among poor black communities, it would be appropriate to preferentially select students from these communities. But the emphasis is on need.

It is necessary to prevent any labelling of PCCs as belonging to a second-class profession suitable for racially categorised or economically disadvantaged sections. The corollary would then be that doctors be labelled as first-class professionals for the rich and predominantly white sector. PCC is envisaged as a respectable first-choice career option for matriculants. (Certainly I personally would have preferred to be a PCC than a so-called doctor. I prefer ambulatory care. I do not like and am not

able to do midwifery or any kind of surgery. I did not enjoy my surgical house-job and "finger amputations" on my own on Friday evenings was a night-mare! I cannot even put up a drip, but I am a good clinician.)

It will be totally counter-productive to the process of transformation, to race relations and to a balance of power if black PCCs are trained to work in poor mostly rural areas while white doctors with a smattering of blacks from rich homes are trained to work in rich urban areas. In addition SA is still living and will do so for many years in the aftermath of apartheid where blacks were disadvantaged. No profession or academic endeavour should therefore be seen in racially exclusive terms.

3 social anthropology

The above comment was prompted by what I read as your concern re the relevance of the inclusion of social anthropology in a course for African (as opposed to other blacks and all whites) students. All "health workers" irrespective of personal traditional and cultural background need to know about and respect their own and others' cultural "roots", health beliefs and customs. PCCs are planned to serve everybody living in their geographic area, irrespective of any consideration other than severity of disease and service need eg surgery (but even here patients should be processed and referred by the PCC and return there).

But social anthropology may be a boring subject for some and I think that whatever subject is offered it should be enjoyable. Perhaps social anthropology could be replaced by the study of "literature." I am thinking, and getting quite excited, about offering PCC students a selected bibliography of literary and biographic works in any language to read with the proviso that every 6 months or semester they hand in a short summary of the books (at least 3?) they have read.

4 nurses

In the medium to long-term I have divided nurses into 3 groups: registered nurses {RNs), accredited midwives or those including RNs working as midwives, and staff, enrolled and assistant etc nurses.

> RNs are specialists - on that side of the continuum from generalists to specialists. They should work in secondary and tertiary care, in hospitals and specialist clinics, but NEVER as doctors' hand-maidens.
>
> Midwives are midwives and should work wherever their services are needed. They could share ante and post-natal services with PCCs and doctors and delivery services with doctors.
>
> Staff nurses should up-grade to RNs. Enrolled and assistant etc nurses should re-grade to the status/role of health educators and act as such and as carers (the old original nursing, caring, supporting, kind, helpful image). Their training and subsequent status should be determined by their entry qualifications within the National Qualifications Framework.

In the short-term nurses should be phased out of their role as clinicians. In my proposals I have listed several short-term options for medical service providers.

5 status and remuneration

This area is not directly addressed in my proposals but obviously at all stages and for all categories of "health workers" support, respect, recognition, regulation, and adequate remuneration is essential; otherwise there will be NOBODY left.

6 Prof Kallikurum, President of HPCSA.

The reason why I refer to her is because of her current status and her probable interest in and support for the concepts that I outlined to you. If so and if they also have your support (in the sense that they should be further explored) it may be useful for her to be lobbied. The question then is whether you or I do it in the first instance or whether we go together. Perhaps this should be discussed with William Pick first because if I understood you correctly he has been meeting with the different councils and boards in his capacity of chair of the Human Resources for Health Task Team.

I suspect her interest because in the Kark's book (COPC …) which I had brought with me, there is a note about her. She was one of the medical students in the first intake class at Durban Medical School where the Karks had been instrumental in helping to implement a different primary care oriented curriculum for the whole medical course. (It may be useful if the PCC concept is taken further to use their curriculum when planning the PCC syllabus).

They quote the following extract from an address that Prof Kallikurum gave on the occasion of the 40th anniversary of the University of Natal Medical School:

> "The experience that I gained here could not have been obtained anywhere in the world ... One of our final year major subjects was Community Based Education, taught in the Department of Family and Social Medicine headed by Professor Sidney Kark ... It has taken more than three decades for the wheel to turn full circle, and only now is the importance of community health and education again being recognised ... It was the only area of training where cultural habits, beliefs and traditions became important."

Postscript

The letter was not acknowledged despite frequent reminders.
There was no follow-up. Nothing happened.

Meeting with Professor William Pick 14 May 2001

Effie Schultz May 2001; edited December 2010.

Matters arising and comments on the proposals on Primary Care Clinicians (PCCs) prepared by NBD Magobe, E Schultz, M Sefoka and Health Educators (HEs):

1 Human Resources for Health Task Team (HRHTT)

- William Pick who chaired the HRRTT confirmed that the Minister of Health personally supports the training and deployment of middle-level, multi-skilled medical care providers and health workers such as PCCs and HEs.

- The proposals "dove-tailed" into the recommendations of the HRHTT.

- The second draft report of the HRHTT is ready for submission to the DOH. William Pick indicated that the proposals on PCCs and HEs would be submitted as addenda to the draft report.

- The shortage of skills and manpower was approached differently by the HRHTT and by the authors of the proposals:

    i HTHTT proposed that public sector employees be taught specific skills to cater for identified, locally-based individual skills needs

    ii In the proposals it is recommended that two new categories of care providers (PCCs and HEs) be trained to meet medium and long-term human resource needs, and that in the short-term existing categories be in-service trained/skilled to cater for current needs and be able to qualify in time for re-grading to PCC and HE status.

In real life people present to a primary care service point with diverse needs often at the same time. They need a one-stop, one-time service. This can only be provided by a generalist in primary care such as a PCC or a HE. In secondary and tertiary care a HE could act as a co-ordinator of a team of specialists as well as a support to patients and their concerned families, etc. PCCs will only operate in primary care.

2 The role of nurses within the framework of the proposals

Nurses will constitute a specialist cadre of medical service providers who will operate only in secondary and tertiary care. They will provide highly skilled, technical and administration services - definitely not a cheap hold-all or girl Friday, nor a mini-doctor nor a nurse-maid cum domestic help.

The personal caring service that nurses have traditionally supplied will be taken over by HEs with personal nursing caring skills.

3 Vertical and horizontal programmes

The proposals support horizontal programmes in preference to vertical programmes. Vertical movement will be in both directions between levels of care and within each level of care. One-stop service and continuity of care is assumed. In the HTHTT recommendations care providers will operate in vertical programmes with referral from low-level specialists to generalists within the primary care level only.

Training enrolled nurses in IMCI (Integrated Management of Childhood Illnesses), and in other vertical programmes such as DOTS (Directly Observed TB Treatment – short course), GOBI (Growth monitoring, Oral rehydration, Breast feeding and Immunisation) +/- FFF (family planning, female education and food supplementation} undermines general confidence in the service providers and in the public. These programmes result in queues and delays and in friction between providers.

4 Lowering of standards and irregular or unethical practice

William Pick indicated that the regulating councils and the professional associations are concerned re lowering of standards and un-regulated private practice. This was seen as a problem with single skill-based training as recommended by the HRHTT.

This would not be a problem with PCCs and HEs. Measures, as also outlined in the proposals, to ensure that standards are achieved and maintained, and that practice is confined to the registered scope of practice and competencies could include:

- regulated and nationally standardised training
- qualification on meeting standardised and formal requirements
- granting of a certificate or diploma, or a degree on qualification
- a regulated and supervised internship
- registration (as learner, graduate, intern and practitioner) with a controlling body within the HPCSA
- CPD as a requirement for renewal of registration
- forfeiture of right to practice if in breach of HPCSA regulations

5 Attrition of new "graduates" from areas of need

Concern was expressed by William Pick that new skills-trained "graduates" would leave the under-served areas where they had been specifically trained to fill identified needs. Apparently consideration is being given to measures to prevent these "graduates" from using their skills outside the geographic area where they were trained. This implies that the training would be useless if and when the "graduates" moved. In this way their training would/could restrict their occupational and residential mobility.

Freedom of movement is guaranteed by SA's human rights legislation. A restrictive contract is also counter-productive in that it would limit recruitment and deployment to people desperate for employment and income and without ambitions - not a preferred group.

Measures to promote the retention of new "graduates" are preferred, acceptable, compatible with human rights and feasible. They include:

- pre-training contracts between trainees and other stakeholders for
- a period of internship and
  a minimum period of employment after internship

- good working conditions and remuneration
- other incentives as in the proposals

6 Career path and professional development

All qualifications must be marketable and must also enable "graduates" to develop professionally along National Qualifications Framework bands. This would ensure a dynamic Human Resources for Health movement with a continuous influx of trainees and the up-grading of qualifications and competencies.

7 Time frame

The proposals are for the medium to long-term. It will take many years before the proposals are accepted, fine-tuned and implemented. Interim measures are needed.

Interim measures from the perspective of the proposals include:

i the development of basic and post-basic curricula conforming with South African Qualifications Authority (SAQA) requirements
ii the generation by the Standards Generating Board (SGB) of a framework for standards
iii approval by the Skills Education and Training Authorities (SETA) for funding of learnership schemes
iv the establishment of learnership schemes
v training and deployment of learners (who agree up-front to further training as required for registration by the HPCSA as HEs in time).

8 a basic generic course

There should be a basic generic course for all medical care providers and people working in any capacity within the health and medical sector so that with further training they could become and be registered as inter alia:

health educators

- nurses and therapists
- doctors and dentists
- pharmacists and medical technicians/technologists
- medical scientists and sociologists, etc.

a basic generic course should include at least the following subjects:

- epidemiology (the determinants of disease) and demography
- health informatics (collection and interpretation of data)
- psychology, sociology, social anthropology and local history (understanding people and society in SA)
- communication and training/pedagogic skills

9 Where to from here for the proposals

William Pick indicated that he would request Mrs Mdlalose, Director of Human Resource Development at the Department of National Health to suggest to Mrs Gumbi, Chief Director of Human Resources for Health at the Department of National Health that the proposals be placed on the agenda of the forthcoming meeting of the National and Provincial Coordinating Committee on Health scheduled to take place soon and that I should be invited to present the proposals at that meeting and/or at subsequent meeting/s of other human resources decision-making committees.

Postscript

No invitation was ever extended to me.
Nothing further was heard from William Pick or anybody else.

Appendix: Definitions

Terms used in the motivations for Primary Care Clinicians and Health Educators and for sub-specialities in Health Education and Chronic Disease Care

Effie Schultz June 1996; edited December 2010

Health and disease

health: a state of mental and physical well-being in the absence of overt disease, discomfort or disabling disability

common acute disease: respiratory tract infections, gastro-enteritis, intestinal parasitic infestations, dyspepsia, STDs, other genito-urinary tract infections, minor cuts and abrasions, skin infections, locally endemic infections (eg malaria), conjunctivitis, under-nutrition, joint and muscle strain, acute substance intoxication, ...

common chronic disease: a non-acute phase of a common non-acute condition in which excellent compliance with medication and with healthy eating and living habits is essential.

The following chronic conditions qualify to be managed by primary care clinicians:

asthma, chronic bronchitis and other forms of chronic lung disease, myocardial insufficiency (angina) and peripheral vascular disease, diabetes, epilepsy, hypertension, obesity, under-nutrition, dyslipidaemia, osteo-arthritis, gout, hiatus hernia, varicose veins, selected psychoses (schizophrenia and affective disorders), other mental disorders (mental retardation, Alzheimer's disease, depression, and chronic substance addiction) AIDS, and tuberculosis as well as mild forms of their common non-acute complications

Note: Complications such as advanced heart failure, neuropathy and nephropathy, other common chronic diseases such as cancers, rheumatoid arthritis, cirrhosis and chronic hepatitis, and uncommon chronic diseases should only be managed on behalf of medical care providers or specialists on formal referral and under regular supervision.

Types of intervention on health and disease

health promotion and protection:

> comprehensive, inter-sectoral, and multi-disciplinary activities involving the individual and the public directed at promoting and protecting health

disease prevention: as for health promotion but directed at preventing illness

levels of disease prevention - these tend to merge into each other:

- primary: preventing a disease from starting
- secondary: preventing the disease from getting worse
- tertiary: preventing complications of the disease

Note: Health promotion and protection, and disease prevention are not discrete entities but it is useful to define them separately.

medical care: medical service provision comprising personal health promotion and protection, personal disease prevention and diagnosis, medical management to cure and/or control disease, assistance in convalescence, rehabilitation and palliative care

- primary medical care: first contact medical care in an out-patient, ambulatory setting
- secondary medical care: next (higher) level of referral for medical care
- tertiary medical care: next (highest) level of referral for medical care

primary health care: an ideal advocated by the WHO embracing personal primary care simultaneously with public intervention within the context of limited expertise and finance

chronic disease care: (CDC) personal, comprehensive and sustained medical care of people suffering from a chronic condition

emergency care: stabilisation of severely injured, very ill, or unconscious patients
first aid: immediate attention to injured and ill people
geriatric care: comprehensive medical care of the elderly
home/self care: measures that can be applied without medical intercession

control: stabilising disease that cannot be cured
convalescence: period of recovery from an illness
cure: eliminating or eradicating disease
palliation: reduction/alleviation of distress and pain
rehabilitation: return of function to normality or to what is was before illness
remediation: improving function after an illness

Other definitions

clinician: a doctor, medical auxiliary, PHCN, PCC, and any person trained to diagnose and manage disease

doctor: a person with a MB BCh degree or equivalent and registered with the Health Professional Council of South Africa

medical auxiliary: a person with a degree or diploma registered with the HPCSA as a medical auxiliary or equivalent

primary health care nurse: (PHCN) a registered nurse who has been further trained to diagnose and manage a number of conditions in a primary care setting

primary care clinician: a new category of medical care provider as proposed

community health worker: a person who acts as a clinician, nurse, therapist, counsellor, health educator, … in the community

therapist: a physiotherapist, speech therapist, psychotherapist, occupational therapist, and community-based rehabilitation worker, etc.

health educator: a new category of health and medical care provider as proposed

Health Sciences/disciplines

public health: the advocacy and implementation of appropriate public health measures to protect and promote health, and to prevent disease in communities and in the nation as a whole;

epidemiology: the study of the distribution and determinants of health and disease-related conditions and events in populations and the application of this study to the control of health and disease

nursing: a discipline whose members have been trained to attend to the personal non-medical needs of sick people

family medicine: area-based primary medical care organised around a family or household

health informatics: the collection, collation, analysis, and reporting of data relevant to personal and public health and disease

management (medical): comprehensive personal medical intervention including diagnosis, patient education, and all forms of treatment