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THE EFFECTIVENESS OF HEALTH PROMOTION FOR THE ELDERLY

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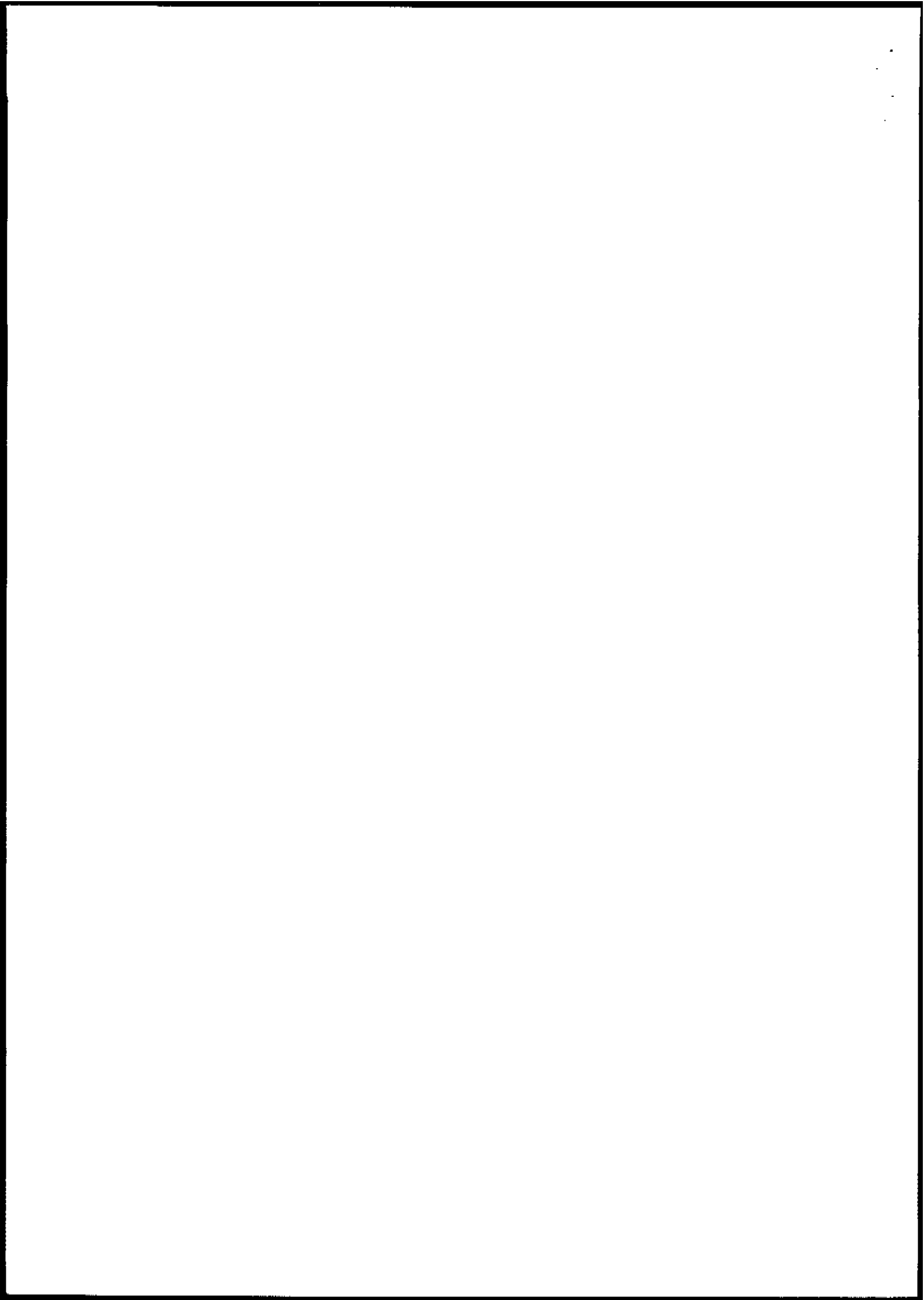
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1. BACKGROUND

In November 1987 the World Health Organisation will convene an Expert Committee on Health of the Elderly. That Committee's task will be to report on "the technology that can be applied in different socioeconomic situations to maintain the wellbeing of citizens as they age."

This report, which will be provided as a background paper to the Expert Committee, reviews ways in which the health of the elderly can be maintained by examining evidence from different approaches that have been used in the countries represented.

The evidence reviewed here was first assembled by a WHO Advisory Group on the Effectiveness of Health Promotion for the Elderly which met at McMaster Medical Centre, Hamilton, Canada in April 1986.



2. PROGRAMMES FOR HEALTH PROMOTION IN ELDERLY PERSONS

2.1 Health Maintenance Packages for the Elderly

One approach presented at the Hamilton meeting was that of health maintenance for the elderly outlined in two multi-dimensional packages, one for those elderly living in the community and the other for those who are living in institutions. These packages were presented in cognizance of the efficacy of health maintenance as a strategy for this age group, and in light of current evidence that they seem useful, safe, simple and cost-effective in their application. They are designed to achieve the following goals:

- 1) to prevent or modify physical, psychiatric and iatrogenic disorders;
- 2) to prolong the period of effective activity and independent living;
- 3) to ensure a support system which is adequate enough to preserve a patient's autonomy, independence and quality of life;
- 4) to avoid institutionalisation as far as is practicable;
- 5) to ensure that in the case of terminal illness distress to patient and care givers is minimized; and
- 6) to reduce the care givers' burden as far as is possible.

Within each package, strategies are classified according to whether they are aimed at the prevention of disease, the enhancement of functional status or the strengthening of the support system. The emphasis given to each may need to be varied with age, for example, functional and supportive measures are employed increasingly in advanced aged with the frail elderly.

An example of a measure relating to the prevention of disease among the community living elderly is to avoid delay in the presentation for care through health education programmes for the elderly and their care givers, and to undertake regular surveillance of those who fail to attend a practice or clinic.

The promotion of exercise programmes into the daily routine of elderly people is presented as a strategy to avoid general deconditioning with age and aimed at enhancing functional status. Examples of other measures to maintain functional status are the provision of personal and home aids where function may be impaired through poor vision, deterioration of hearing, incontinence or an inability to carry out domestic tasks.

Two measures to maintain the support system where poverty is an issue for the community living elderly are to ensure adequate pension provision and to eliminate significant third party reimbursement gaps in current health care benefits schemes.

Significant measures in the prevention of disease among the institutionalized elderly are the incorporation of screening for depression and dementia into the medical examination; and the incorporation of weight reduction measures, adequate staff/patient ratios to ensure those with feeding difficulties can be assisted, and attention to cooking techniques to preserve nutrients which will ensure against the likelihood of malnutrition.

A number of measures are included to address immobility in the institutionalized elderly to enhance functional status. These include the possession of appropriate walking aids, the practice of functionally oriented care and the time for this, in all institutional settings, and the minimisation of usage of wheelchairs indoors.

A number of practical measures are included to address issues of family or staff stress in maintenance of the support system for the institutionalized elderly. One example is to offer psychological support for families of the severely demented and the dying, and for the bereaved. Alleviation of guilt often experienced by families in institutionalizing their relatives, is one other significant example.

Amending the current eligibility rules for long-term care benefits supplementation is cited as a measure to address the issue of poverty, among the institutionalized elderly.

Evidence is presented for issues addressed in the health maintenance packages, and for the measures to be used. An attempt is made to consider the cost implications of such measures for the elderly and it is concluded as in the South Australian approach, (described later in this report) that there is a need to identify programmes which have the greatest impact so that a rational and informed allocation of priorities and resources can be made in regard to care for this age group.

2.2 Screening of the Elderly - Comparison of Recommendations for Screening the Elderly Made by British, Israeli, Canadian and American Authorities

2.2.1 Overview

In a paper prepared by the Brookdale Institute of Gerontology and Adult Human Development, Jerusalem, the issue of the content and importance of particular screening tests is addressed. Evidence that older people are underscreened because their illnesses are attributed to ageing is presented, along with the opposite view that there is a tendency to overscreen in an attempt to detect hidden pathological states. It is concluded that what needs to be found is an acceptable middle ground to bridge these perspectives.

Recommendations for screening content made by authorities in Britain, Canada, Israel and the United States are reviewed to shed light on emphases, content, methods and approach.

2.2.2 Comparisons of Recommendations

The sources cited as the basis for comparison are the following:

- 1) The national office of Kupat Holim, Israel
- 2) The Canadian Task Force Recommendations for the Periodic Health Examination
- 3) American Geriatrics Society
- 4) British Physicians (Anderson and Williams)

Overall, there is much similarity in the recommendations made by the four authorities. They agree that the following practices should be included in screening for the elderly: measuring weight and height; the assessment of social and psychological function; blood haemoglobin concentration and urine analysis.

Three of the four authorities were in agreement that influenza vaccines should be administered, and that assessment for dementia/memory loss should be conducted; as well as oral cavity examinations; pelvic/genital examinations; hearing assessment; and counselling in diet and nutrition, and oral hygiene.

Areas where two of the four authorities concurred were the following: assessment of vision and eye conditions; assessment of diet and nutrition; breast examination; examination for hypothyroidism; and examination of the skin. Laboratory tests recommended by two of the four authorities included those for blood sugar; occult blood in stool; cervical smear and tetanus/diphtheria vaccination. Two of the four authorities agreed on the importance of counselling in the areas of smoking/alcohol behaviours; care of the skin, legs and nails; and breast self-examination.

Although authorities tended to concur on many examinations and several tests, there are still substantial variations in their selection of laboratory tests and X-rays. It is noteworthy that the American Geriatrics Society recognises the particular health problems of women by recommending all of the following: mammogram, breast examination, pap smear, pelvic examination and endometrial sample.

One significant feature of the screening profile recommended by both the Canadian Task Force and the American Geriatrics Society is the relatively high number of areas where counselling is recognised. This reflects an awareness of health professionals in North America of the potential which exists to modify or improve lifestyle habits as a preventive health strategy. Israeli recommendations are cognizant also of this fact.

An evaluation of recommended frequency of use of screening tests for all elderly seems to indicate more agreement across countries on the timetable of these tests than on their content.

2.3 Two National Approaches

2.3.1 Australia

Overview

One significant document, prepared by the South Australian Health Commission's Health Promotion Branch identifies prospects and strategies for health promotion among the aged. "Priorities for Health Promotion amongst South Australia's Aged" addresses the question of where limited health promotion dollars are best directed to achieve the greatest gains for the ageing.

Unlike other reports which have been concerned with the economics of supply, relating to the expansion and/or reorganisation of health services for the elderly in that State and nationally, the document looks at opportunities for modifying the demand for health care. It identifies two fundamental goals for health promotion interventions in the elderly. The first is the reduction of the risk of disease and disability by modification of risk factors, and the second is the prevention of functional disability and the maintenance of independence in carrying out activities of daily living.

The motivation to develop a Statewide programme was derived from Statewide data collected from morbidity collections and from health surveys and surveys of handicapped persons. These data demonstrated dramatically the rise in disablement particularly amongst the older aged, a category that is increasing markedly as a proportion of the State's population. Thus the plan was formulated in recognition of the patterns of illness and disability that are likely to escalate demands for health care

and increase requirements for needed services for the aged during the 1990s and beyond.

Criteria for Selecting Health Promotion Priorities

To determine priority areas for health promotion among the elderly in South Australia, the document utilised criteria proposed in a previous paper to an analysis of the major causes of mortality, morbidity and disability among the elderly and to a number of social and attitudinal factors which are significant in the maintenance of independence and general well-being.

That paper identified criteria for priority problem areas which are:

- 1) the most prevalent in causing disability or death;
- 2) prominent societal concerns;
- 3) those which are most likely to yield significant outcomes through the investment of resources; and
- 4) those which are amenable to intervention in that
 - i) large scale studies conducted support the conclusion that sustainable results can be achieved in that State;
 - or
 - ii) studies suggest that the problem is amenable to intervention but local pilot-testing is required.

On the basis of these criteria three groups of activities were determined. A fourth group was added which included problems experienced by subgroups of the population, or problems which are localized geographically.

Groups of Activities

A tabular representation of activities classified by group is presented in the document, each activity being categorized according to risk factor, target group, strategy and the role of health promotion intervention.

GROUP I

The problems of cerebrovascular disease and coronary heart disease are identified in Group I, the major risk factor being hypertension. For the identified target group of moderate to severe hypertensives the strategy of facilitating appropriate therapy suggests the following role for health promotion interventions:

- the promotion of screening for hypertension
- the development of materials which will assist compliance in taking medications
- raising awareness among community organisations and general practitioners

GROUP II

Areas identified as Group II activities include the smoking-related diseases of respiratory disorders, cancer and cardiovascular disease; the risk factor of immune deficiency and its resultant susceptibility to influenza and pneumonia; breast cancer; and the problem of providing support to elderly persons with mental illness. The role of health promotion in each of these areas is focussed on the development of educational materials for the relevant target group service provider(s) and the community generally.

Co-ordination of and liaison work with community services and organisations which are involved with the elderly are identified as areas where potential benefits would be forthcoming.

GROUP III

The greatest number of priority areas were identified in this group where there is a clear need for preventive action to occur, but where no clear evidence exists that successful interventions are either available or effective as they relate to the elderly.

Each area is justifiably included, for example elevated cholesterol levels and their relationship to cardiovascular disease; the prevention of accidents, adverse effects of medicaments; of accidental falls and of fractures of the femoral neck; lack of social support for the elderly; negative attitudes to ageing and older persons; difficulty in adjusting to retirement; and finally a number of specific conditions which become increasingly prevalent with age. These include specific organ carcinomas, eye conditions, loss of hearing and metabolic disorders, among others.

GROUP IV

An example of a Group IV activity is presented which cites constipation as a problem area principally attributed to a lack of dietary fibre. The role of health promotion in this area includes the production of materials which will assist in recipe selection, particularly when targetted to residents of nursing homes.

Evidence Supporting the Choice of Intervention

The South Australian document subsequently provides evidence for the choice of intervention for group priorities. For example, its case for identifying and treating moderate and severe elderly hypertensives is supported by the following:

- 1) According to the National Heart Foundation approximately 10 per cent of males and 7 per cent of females aged between 60 and 64 years are recognised as having hypertension, as defined by the World Health Organisation.
- 2) Antihypertensive therapy in elderly patients has been shown to reduce cardiovascular morbidity and mortality. Most recently the European Working Party on High Blood Pressure in the Elderly Trial (1985) demonstrated beneficial effects in subjects aged over 60 years who presented with mild or moderate hypertension.

- 3) Clear benefits have accrued from the treatment of moderate and severe diastolic hypertension in the elderly and at least up to the age of 70 years evidence of trials is favourable for the treatment of mild diastolic hypertension.

Apart from media involvement in cessation of smoking and maintenance of that behaviour, the role of the general practitioner as a medium for intervention has been shown to be effective in influencing smoking behaviour, particularly when smoking related problems are present. That the elderly consult general practitioners more frequently supports the contention that doctors can provide an effective medium for intervention. Reported trials on advice by a doctor to stop smoking, when supplemented by materials on maintenance of the behaviour have been very effective in reducing smoking.

The administration of influenza vaccination is supported by the following evidence.

- 1) In South Australia deaths from influenza and pneumonia are the third leading cause of death above age 65.
- 2) Analysis of South Australian mortality data from pneumonia and influenza (and other causes) for successive four week period during 1968 to 1987 revealed a 74 per cent excess in deaths from pneumonia and influenza during the winter months and early spring. Vaccination as an intervention is therefore recommended, to be administered in the autumn.

An analysis of mortality rates for breast cancer in older women, and the finding that women over 50 were practising breast self-examination less frequently than younger age groups following a South Australian campaign are presented as evidence for targetting a breast self examination programme at older women.

Apart from its presentation of evidence to support interventions pertaining to particular morbidities, the SA plan addresses a number of sociological issues for the elderly and suggests interventions which can ameliorate, for example, the adverse effects of social isolation, the burden of caring on family members and unfavourable societal attitudes towards the elderly. In addition, evidence is presented that pre-retirement education is effective in improving the knowledge and behaviour of people in the period around retirement (at least in the short term) given that surveys of the elderly have demonstrated difficulties in adjusting to retirement in substantial proportions of males and females.

Conclusion

The South Australian plan represents a comprehensive approach to the issue of health promotion for the elderly, not only through its attention to the spectrum of issues amenable to intervention but also through its demonstration of the range of interventions that can be envisaged. These latter range from community support and mass advertising to the participation of the primary health care provider. Its foundation in planning for action on the basis of existing data and establishing criteria for the effectiveness of interventions means that results in terms of outcome can be measured. The plan articulates in a comprehensive way the likely benefits of appropriate health promotion strategies for the elderly in that State.

2.3.2 Dispensarization of the Elderly in Cuba

Overview

Dispensarization is a term used to define an active method of follow-up of vulnerable groups of the population. The main objective of this method is the early diagnosis of diseases or conditions which if left undetected could result in loss of function, or a degree of disability.

Cuba has utilised this approach for the screening of elderly people since 1974 within a health programme for adults, but more recently, as a special health programme for the elderly. The programme is extended to all individuals over the age of 65, as well as retired persons between the ages of 60 and 64. Dispensarization is carried out in outpatient clinics (polyclinics) and in the elder's home.

Process and Content

It is the responsibility of the primary health care practitioner and a nurse to check each elderly person within the catchment area of their clinic either at the clinic or in the person's home every year. This is independent of any symptom-motivated attendance at the clinic. Each medical practitioner is responsible for some 120 families.

The outcome of assessment determines subsequent encounters. Healthy elderly persons receive a check once a year at the outpatient clinic and once a year at home, while the non-healthy elderly receive a check twice a year at the outpatient clinic and once a year at home.

In the case of the healthy elderly, the content of the encounter includes looking for biological disorders such as heart disease, hypertension, peripheral vascular disease, cerebrovascular disease, chronic respiratory disease and diabetes; social conditions such as elderly people living alone and the very old, widows, retired persons, and people with handicaps or mental disturbances; and the identification of risk factors, for example, smoking, obesity and lipid imbalances.

Control for risk factors, treatment and rehabilitation; health education; and evaluation of function are the focus of encounters with non-healthy elderly persons.

3. PERIODIC HEALTH EXAMINATIONS - U.S. AND CANADIAN TASK FORCES

3.1 Overview

There has been close liaison established between these two Task Forces with collaboration on all health issues studied, and cross-representation of personnel.

The groups have agreed on the following criteria of the effectiveness of interventions assessed according to the quality of evidence obtained as follows:

- 1) Evidence obtained from at least one properly randomised control trial
- 2) Evidence obtained from well designed cohort or case-control analytic studies, preferable from more than one centre or research group.
- 3) Evidence obtained from comparisons between times or places with or without the intervention. Dramatic results in uncontrolled experiments have also been included in this category.
- 4) Opinions of respected authorities based on clinical experience, descriptive studies or reports of expert committees.

For each of the conditions included in the 1979 Report of the Canadian Task Force, evidence for the effectiveness for prevention and treatment has been assessed and graded using this scale. That Task Force's principal recommendation was that a routine annual checkup should be abandoned in favour of a selective approach determined by an individual's age and sex. This would focus detection and allow appropriate preventive intervention to be selectively targetted to persons at greatest risk. Accordingly age and sex specific "health protection packages" were developed, and it was recommended that procedures involved should be incorporated into patient visits where practicable.

In addition to the assessment of effectiveness of the intervention, the recommendations of the Canadian Task Force were classified A to E as to whether they should be specifically considered in a periodic health examination, viz.

- A. There is good evidence to support the recommendation that the condition be specifically considered in a periodic health examination.
- B. There is fair evidence to support the recommendation that the condition be specifically considered in a periodic health examination.
- C. There is poor evidence regarding the inclusion of the condition in a periodic health examination but recommendations may be made on other grounds.
- D. There is fair evidence to support the recommendation that the condition be excluded from consideration in a periodic health examination.
- E. There is good evidence to support the recommendation that the condition be excluded from consideration in a periodic health examination.

3.2 Procedures Included in Health Protection Packages

The health protection package for males and females aged 46 - 66 years included screening for cancer of the colon by testing for occult blood; annual mammography for women aged 50-59 years as a screen for cancer of the breast; clinical examination for hypothyroidism in postmenopausal women every second year; and retirement counselling.

A further package for men and women aged 65 - 74 years included immunization against tetanus, diphtheria and influenza; correction of hearing impairment; measurement of blood pressure for hypertension, oral examination for dental caries, testing for occult blood in the stools; two-yearly assessment of nutritional status and a condition termed "progressive incapacity with ageing".

This latter has been taken to mean impairment in any one or more of: capacity for self-care or performance of activities of daily living; locomotor ability; psychological functioning; sensory function; and social functioning. Any one or more of these which emphasize the importance of preservation of functional ability and the role of undiagnosed disease is considered an area of priority. Detection of hypothyroidism, tuberculosis, cancer of the skin and bladder (by cytology) and cancer of the cervix were included in this package.

The health protection package for males and females aged over 75 years included all of the above plus examination for oral cancer.

4. A CONCEPTUAL APPROACH TO PREVENTION

The classical approach to prevention - primary, secondary and tertiary - set against the transition from disease to impairment, disability and handicap was re-emphasized by a Canadian delegate. An example given of primary prevention in the prevention of impairment was removing hazards in the home. Therapy for osteoporosis was cited as an example of tertiary prevention of impairment.

An example of primary prevention for disability is the avoidance of bed confinement, whereas secondary prevention involves attending to visual and hearing problems from a primary health perspective. At the tertiary level, rehabilitation should be the focus.

The role of primary prevention with regard to handicap is in the provision of specially designed houses, while that of secondary prevention would involve case-finding of the isolated disabled in the community. One strategy for tertiary prevention in disability is the provision of wheelchair ramps.

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