

## CONCLUSIONS AND RECOMMENDATIONS

### 13.1. CONCLUSIONS

#### I. RESEARCH METHODOLOGY

1. Epidemiological approaches to the ageing process in developed countries began some years ago and nowadays they are sufficiently sophisticated to be able to answer different questions about the health needs and health services for the ageing, including providing knowledge for decision making.
2. In developing countries, however, it appears that the ageing process is neither a priority for decision-making nor for research in the health field.
3. This present study is the first cohort project on ageing in Latin America, and the study population is representative of the elderly population covered by IMSS in the DF in México. These two characteristics permit the study to evaluate causal associations between variables and to calculate the pace in which elderly people are becoming ill and/or dependant on other people for support.
4. The non-response rate achieved during the follow up period was low and allowed the representativity of the sample to be retained.
5. The number of social, demographic and health variables evaluated together with the sample size, permitted a complex analysis and the use of comprehensive statistical models.

6. The adaptation and validation of indicators in this Mexican population added strength to the value of the results and permitted comparisons with other elderly population groups.
7. Strictly speaking the results can only be generalised to the population covered by IMSS in the DF, however, this group can be used as a reference population while others are not yet available.
8. Some variables or conditions could have been under or over estimated since the study relied on self-reporting because other alternatives with more sensitivity and specificity for specific conditions were considered to be too expensive for use in such community studies.

## **II. RESULTS**

1. Social, economic and health conditions were found to be poorer among the elderly women, even though they received more support from their family.
2. Changes in economic and social conditions among women could provide opportunities to promote healthy ageing, if environmental and behavioural risk factors were controlled with the use of proper promotion and prevention programmes.
3. Independently of the direction of the health sector reform, the participation of the private sector in attending elderly people needs will be limited, unless the Mexican government guarantees the finance necessary for the private sector to participate in the delivery of services.
4. Family support plays an important role in the lives of elderly people specially when there is more health needs. However, future demographic changes could mean a reduction in this form of support.
5. Some behavioural risk factors could be more susceptible and modified with greater use of cost-effective interventions. Special attention needs to be paid to the high proportion of sedentary elderly people, since this factor itself could influence the dependency level.

6. The low level of dependency in this population and the participation of the family in attending the dependent elderly people, limited the influence of this variable in the cost of health services. However, both situations could change in the future.
7. The so called general health problems in the elderly subjects need to be prevented, early diagnosed and treated, since they could affect health conditions and independence and increase the cost of health services.
8. Most of the self-limiting acute problems could be prevented or resolved by the elderly population with the proper training and education. However, there is not enough information to start making decisions about them.
9. Although the problem of chronic diseases is not exclusive of the elderly population, the proportion of them with at least one chronic disease is high enough to start and try to prevent those problems early in life. Only with those preventive programmes the compression of morbidity could be possible.
10. The complexity of diseases observed in this group of population and the lack of medical doctors training in gerontology and geriatrics in IMSS has resulted in a higher utilisation of health services in the second and third level of care, increasing the cost of health care.
11. HBP and diabetes mellitus are the most frequent and expensive problems for the institutions. If the cost future scenario is going to be change, the optimal number of services to control both diseases needs to be established though scientific research. Otherwise scarce resources are being wasted, and they will be unavailable in the future.
12. Demand of services in this public institution is promoted by programmes, the access to services, the quality of care, and sometimes by the lack of supply. The real effect on health should be evaluated since utilisation itself is determined by the complexity and the severity of diseases. Only the reduction of needs could have an effective and long lasting effect on the utilisation of services and their cost.

13. Long term care within the family could be promoted by using alternatives already proved in developed countries such as cash payment and pension for the carer. The demographic change and its influence in the possibility of the family to care for their elderly can not be ignored.
14. Closeness to death is one of the important variables to determine the cost of health services, specially in the third level of care. However, this terminal stage is not exclusive to the elderly population.
15. The necessary infrastructure in the future to attend elderly people demands, assuming the same level of needs, utilisation and cost will be unaffordable if health policies and the medical model continue to be also the same.
16. The trend in the infrastructure growing in IMSS did not have the same slope than elderly population needs. This condition is causing certainly quality of care problems since demand has exceeded medical doctors and other resources production capacity.

## 13.2. RECOMMENDATIONS

### I. RESEARCH METHODOLOGY

1. The epidemiological approach to the ageing process necessarily implies the utilisation of the cohort design to avoid biases, to establish causal associations between variables and to calculate incidence rates in order to make predictions. Other designs used only to describe current conditions have been superseded and should not be promoted.
2. Even when the ageing process in developing countries is really behind that in those more developed, this should be a priority for research and action. Experience in others countries having completed demographic and epidemiological transition could be used in developing countries to establish the best alternative policies. The scarcity of resources is a disadvantage but the experience in other countries, the availability of information and recent development of statistical and mathematical techniques

is giving the opportunity to create artificial scenarios modifying variables in order to plan the best possibility with the estimated resources in the future and the objective for the health of the elderly population.

3. The adaptation and validation of other scales in the Mexican population is desirable since most of the times they are used in expensive research projects without any validation which results in wasting resources.
4. It is desirable to continue developing other projects of research in Mexico, with the same design but with other objectives or population. In the meantime these results could be considered as a reference for policy making in the Mexican Population. In IMSS, the current development facilitate to test health interventions for the most important and expensive problems and evaluate their cost-effectiveness.
5. The financial and organisational capacity in IMSS to universally cover the Mexican elderly population could be evaluated by using the information in this project to make predictions.
6. The level in which the self-report of some health problems under or over estimate the situation should be evaluated in small representative samples or the same population.

## **II. RESULTS**

1. The disadvantage in which women in this group of the population covered by IMSS live, force the Institution to establish gender oriented programmes in order to try to equal health conditions at the end of life. This does not mean to reduce health programmes for men but to increase the intensity to improve health conditions in women. These gender oriented programmes should start early in life (life course perspective) and include not only specific health actions but also education, nutrition, housing and jobs.
2. The intensity of the promotion and prevention programmes within the Institution and the participation of all the sub-groups of population in them should be encouraged to reduce the difference in efficacy and effec-

tiveness in health outcomes. Comprehensive tertiary prevention programmes with a high component of self-care should be established in IMSS to prevent diseases, disability and complications among elderly people.

3. Policy makers involved in the health sector reform, specially those involved in the decision making process in IMSS should evaluate the possible effect of that reform in the elderly health needs and propose sustainable measures to avoid negative consequences and protect elderly subjects.
4. If privatisation of public institutions or the participation of the private sector in financing or delivery of services is going to be promoted, some alternatives to protect the elderly need to be establish, since they are not an attractive population for that sector. The sustainability of those measures also needs to be evaluated, according to other countries experience. If the universalisation of services for the Mexican elderly population is also becoming a reality, the financing system and its sustainability have to be tested.
5. The family participation could be at risk according to the expected demographic changes in the Mexican population. Government or institutional support for those caring of their elderly relative has proved to be a cheaper community alternative for those in need. A long term care institutionalised system in IMSS seems not possible in the future if other countries experience with the system is evaluated.
6. Those general health problems that are now taken for granted because of the ageing process need to be included in a integral health care programme for the elderly in the first level of care. The early detection of those problems and their treatment and rehabilitation could help to prevent other consequences and the utilisation of health services with more intensity.
7. In order to reduce the proportion of people with chronic illnesses and the complexity generated by the comorbidity, the life course perspective (proposed by the WHO) should be considered as the best alternative to promote health ageing and compress morbidity. This perspective begins when individuals are in their mother womb and continue along their life. It

includes actions from preventing pregnancy expositions to increasing the quality at the end of life.

8. The complexity of diseases observed in this group of population require trained medical doctors and nurses. The implicit policy of exclusion of the geriatric specialisation and training in IMSS has to be changed to create the infrastructure of human resources necessary to attend elderly people needs.
9. It is important to evaluate the effectiveness of a different number and content of consultations for the two most frequent and costly health problems in IMSS, diabetes mellitus and HBP. The optimal effective number and content should be established in the future after an evaluation is made, otherwise there will not be enough resources to attend the currently promoted demand.
10. Once the Institution has started to talk about rationing of health care, there will be aspects to be discussed between patients, providers, and policy makers. Rationing by age or by any other population characteristic should be avoided if ethical principles are going to be respected. As it was established before, economics should help to make decisions but not have a determinant influence in health decisions.
11. Medical doctors should avoid trying to make bed-rationing. Their social responsibility is improve or preserve people's health. Any other temptations under the social benefit excuse has to be avoided giving preference to patient loyalty.
12. The medical care for those in terminal stages in IMSS needs to be defined as a policy with all the actions involved. Human resources training in those aspects is also necessary to avoid the misuse of technology or other unethical decisions that occur in the patients bed. The limitation of resuscitation actions or the excess in manoeuvres are consequence of the lack of policies and respect for patients autonomy.
13. In order to plan for the health of the elderly in the future, it is important to consider alternative scenarios and establish health consequences and cost

in each one. Once the philosophy, the policy and the outcomes are very well defined, organization of services have to be changed accordingly. Other scenarios could be created with the information in this project, depending on the actions to be promoted by policies.

14. Infrastructure in IMSS needs to increase in the short term to cover the current un-covered health care aspects. Instead of defining the growing of the Institution based on economic policies, population covered growing and their needs have to be considered. Quality of care for any group, but particularly for those more in need such as the elderly, is going to increase if the efficiency is not over the effectiveness in health care. Medical doctors need to have sufficient time to achieve in examining their patients health, especially when the complexity of the problems require more time to achieve in the proper control of chronic diseases.