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The Reproductive Health in the Social Security

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Interamerican Conference on Social Security

Studies Series

32

Secretariat General
American Medical Social Commission

Interamerican Conference on Social Security

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An Integral Approach towards the Reform in the Health Sector of Mexico

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"The western civilization will not transcend just for having created considerable scientific knowledge; it will be judged for the veracity of this knowledge and for its effective application to the improvement to social welfare."

NRE Fendall

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PREFACE

The President of the Republic, Dr. Ernesto Zedillo Ponce de Leon, in his first State of the Nation address, mentioned that the integral democratization of the Nation included in the reform to the State will favor the balance between the powers, creating a new federalism, promoting definitive electoral regulations and, as a part of a general change, would help Mexico to solve the economic and social problems faced by the country satisfactorily.

Likewise, he urged all Mexicans to continue working in the establishment of a country of laws, a rule of law that guarantees justice without exceptions, privileges or impunity.

This request constitutes the basis of the modern behavior of the society, where the facts go far beyond the words; these will be the catalysts that renew the credibility in the institutions and their effects will become principles that promote the change in such a way that, in face of the adversity and the crisis, Mexico will keep a project based on equality, justice and work; this effort will ultimately lead the Nation to overcome the obstacles that have interrupted its way towards becoming a society with a sustained economic and social development.

By June 1995, the population of Mexico was estimated at ninety million eight hundred thousand inhabitants who are undergoing a very particular social, political and demographic process. In the field of health, there is a rare epidemiological transition; i.e., the population is entering an aging process with an important proportion of adolescents and a lower participation of the first age groups. This phenomenon is due to, among other important factors, the family planning program that has operated since the 70's, to the elements that have contributed to increase the life expectancy and to the efforts to improve the general health conditions.

On the threshold of the next century and taking into account the above mentioned considerations, it would be easy to infer the importance that the Reproductive Health has for Mexicans. considering it in an integral way as an authentic aspect of the national security, meeting the challenge to control the common ailments suffered in the third world countries, but

without having eradicated the illnesses that prevail in the developing countries.

The Mexican Social Security Institute, as a part of the National Health System, endeavors to observe the social security principles, i.e.: universality, solidarity, integrity, equity and efficiency; assisting the beneficiaries with opportuneness, quality and kindness; assuming, since fifty three years ago, the responsibility of looking over the health of more than fifty per cent of the population, made up by the families that constitute the main manpower of the country.

The integral reproductive health approach presented in this book represents an important effort of institutional conciliation by the Mexican Social Security Institute, placing it at the forefront of the highly-specified innovative approaches in favor of its beneficiaries and of the population of our country as whole.

Genaro Borrego Estrada
President of the Interamerican Conference on Social Security
Director General
Mexican Social Security Institute

INTRODUCTION

The basis that sparked off the change in the current concept of reproductive health and the integral attention of the trinomial made up by the father, the mother and their offspring, were established in the XVII century, when James Lind, navy surgeon, recalled in the year 1753 the need to eat fresh fruit and vegetables to prevent scurvy. Forty three years later, in 1796, Edward Jenner from the United Kingdom discovered the vaccination against smallpox. These two facts constituted the beginning of a new era in the approach of the delivery of health care to the population, with the intervention towards specific measures. This also helped to promote the discovery of causal agents, then called "germinal theory of the sickness" of the ailments that had scourged the society as a whole; this innovative effort started to have a strong impact on the illness pattern of the population, as well as on the improvement in the mortality rates and life expectancy of the human beings. It was only then when the first efforts to relate the etiology of some ailments with certain family habits and customs were made.

All these efforts of the preventive medicine since more than two centuries ago have been counteracted by the social phenomenon called "demographic explosion" partly propitiated by the developments on the knowledge of the infectious diseases and their treatment, as well as by the vaccinations and the appearance of the antibiotics, gave a new course to the prevalence and existence of the infectious diseases. The demographic phenomenon caused since then a series of social, economic, cultural, political and environmental problems that have had an immediate impact on the life standard of the individuals and on the interrelation with their family until now.

The Public Health Science emerged in the XIX century with the implementation of sanitary measures that ultimately became regulations and laws, and with the purpose of having a better control over the sanitary and environmental conditions. At the beginning of this century, this discipline took as a premise the principle in which the State accepts the direct responsibility of the health of the individuals, creating priority programs aimed towards the most vulnerable population, such as the maternal and child health care. It is then when the public health was defined as the science and art of preventing illnesses, enlarging life, promoting health and efficiency through the organized effort of the community.

During the XX century, the efforts of the Public Health discipline have given results, such as to offer solutions to health problems that had not been solved during decades; once more the morbidity and mortality pattern changed constantly depending on the resources and political willingness of each institution and society in such a way that nowadays in its new concept, this science is defined as the organized allocation of resources aimed towards achieving the better health for most of the population. This definition not only includes the action of the government, but of the non-government organizations and the society as a whole; it includes education and promotion actions as well as prevention, treatment and rehabilitation of any decay in the health of the society, either related to transmissible infectious problems, to chronic diseases or to accidents.

It also includes the health of women and their children, without neglecting the father as a fundamental element of the family, where the ailments that alter the health of the family and the actions for prevention, treatment and rehabilitation of the individuals are closely interrelated. For this reason and in view of the integrity of the approach given to this concept, a change from Public Health to Community Health was proposed at the middle of the century. However, the real change depends on the active and conscious participation of the society, taking into account personal and community strategies that meet the health and social welfare demands of the individuals, their family and, finally, of their community. Within this context and as a natural response to the evolution of the society and its customs, it is essential to update the concepts and offer viable and innovative alternatives to plan the health services and the attention to the population, taking into consideration their idiosyncrasy and ensuring their biological, mental and social balance. In this way the reproductive health has a preponderant place in the life of the individuals and, with this integral approach, becomes a cornerstone for the social development of people.

Go in search of your people ....
live with them,
learn with them,
love them,
work with them,
serve them,
start with things they master,
construct with things they have,
and once the duties are executed,
the best recalled leaders
would make the people exclaim ....
WE DID IT ALL TOGETHER !

Ancient oriental proverb

CHAPTER I

INTEGRAL REPRODUCTIVE HEALTH APPROACH, ITS INFLUENCE IN THE POPULATION AND THE SOCIO-CULTURAL TRENDS

In these moments of definition, in face of the economic, political and general socio-cultural problems and as a result of the need to propose avant-garde and innovative alternatives that allow to give integral solutions to multifactorial problems, the society as a whole searches viable and congruent strategies that offer a balance between the proposals and the achievements, within the field of the reforms, aimed towards improving the health of the population and the social security scheme, based on the framework of the laws that guarantee the individual and collective rights of the society.

Propose avant garde and innovative alternatives that allow to give integral solutions to multifactorial problems

The society is undergoing a historic transition period, in which the search of resolution schemes makes it essential to execute substantial changes in the way of organizing and operating the health services and the social security systems, as a cornerstone of the distributive policy.

The health services and social security systems are the cornerstone of the distributive policy

The challenge to find solutions makes necessary to consider the integral development of the social welfare, contemplating the values and interests of the population. In this way, several societies in the world are undergoing a change process aimed towards going forward in the reform to the attention schemes for the population. In the societies with diversified and highly-technical economies, new medical insurance systems are being studied for the health attention of the population; in the countries with national health systems that have had encouraging results during several decades, alternatives are being analyzed that meet the current and future needs of their social strata; in the regions with unfavorable economic conditions and restricted commercial exchange markets, attention schemes with packages of basic services are emerging. These packages are aimed towards meeting the main health and social security needs, emphasizing that

The most humble peoples would like to finish with the traditional systems, from the colonial period

the most humble communities would like to finish with traditional systems coming from the colonial period.

As a result of the social developments, the attitudes of the human being towards life have experienced a constant change, in such a way that the presence of sicknesses liable to be controlled, the decrease in the years of healthy life and the malaise result of the unbalance of the individuals with their environment can no longer be stood. Despite the evidence, where some diseases have been controlled, it is obvious that new problems have emerged, such as sicknesses overcame in previous stages. The change in the current morbidity patterns is remarkable, as well as the close and evident relation between the disease rate and the social progress.

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It is no longer possible to consider the origin of the diseases as unicausal; it is well known that the diseases have several causes or are result of various factors. Even the most common infections, their occurrence and results are more related to social and genetic factors rather than to the simple relation with the causal micro-organism. The success in the control of diseases and the improvement of health would be a fact, if all these aspects are considered in an integral way.

The success in the control of diseases and the improvement of health would be a fact, if all these aspects are considered in an integral way

This not only exists in the developing world, but also in several countries with different development levels. The common factors that hinder the integral development of a country are: limited economic resources, scarcity of education services and trained human resources, restricted technological infrastructure that should be applied to the social welfare service, high fertility rates, malnutrition, common morbidity and mortality patterns and the presence of a rural society with a traditional behavior.

This not only exists in the developing world, but also in several countries with different development levels

On the other hand, an important sector of the population still lives under extreme poverty conditions and there is a great disparity among those families with purchasing power and those who are highly unprotected. The overpopulation is related to the lack of resources for development and to the family planning programs, that also have the purpose of achieving a balance between the population growth rates and the resources available, in such a way that the life standard of the families is improved within a shorter time.

We all know that the overpopulation comes along with insufficiency of other resources, social tensions and, ultimately, it propitiates insecurity among the individuals.

The overpopulation comes along with insufficiency of other resources, social tensions and, ultimately, propitiates the insecurity among the individuals

Considering the population approach and in accordance with the trends, the population pyramid of the nation shows an accentuated ratio of young age groups. This forecasts an important increase in the growth rates, because in the near future these young groups will enter in a reproductive stage, besides assuming that once they are older than five, the survival possibilities will increase. On the other hand, children represent a group of great consumers in terms of family support, clothing, food, education, medical attention and other services that either the family or the State must give to them.

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Behavior of the population in accordance with the place of origin

In accordance with the last population census, around one sixth of the population has less than five years of age and around forty per cent is younger than fifteen. These young people belong to the non-

productive economic strata, that require strong investments in health services in order to reduce mortality rates.

The relation between demographic growth and economic development is inversely proportional

Studies made in several research centers have found discouraging results showing that the relation between demographic growth and economic development is inversely proportional.

Three to four times the demographic growth is required as investment capital to promote the integral development of a determined population

The economic resources are 100 times more effective if they are invested in the decrease of births, rather than investing them in traditional development programs to increase the productivity of men

This is based on the consideration that the emergence of three to four times the demographic growth is required as investment capital to promote the integral development of a determined population. Likewise, some authors assume that, if the birth rates are reduced by half, with the above mentioned investment rate, there will be a surplus of 40% in the income per capita in 30 years. In other studies, it was concluded that the economic resources are 100 times more effective if they are invested in the decrease of births, rather than investing them in traditional development programs to increase the productivity of men.

It is also assumed that the adequate planning and organization of the health care systems have a direct influence to decrease the mortality rates, to improve the general life conditions and the social welfare, to observe the laws and order, to reestablish the starvation or to improve agriculture.

The absence of a long-term planning process in the delivery of health services leads us to create short-scope idealist projects

The absence of a long-term planning process in the delivery of health services leads us to create short-scope idealist projects that can not be reproduced at a national scale, having as a result frustrations and mirages in the planning of the integral development of a country.

The participation of the population as an essential element in the reproductive health care

In general terms, when we talk about the resources available for the supply of health services to the population whatever country we refer to, will always be insufficient, especially when we think about investing in strategies to promote the social development of the population. The social development goals must be aimed towards improving men and his environment, and this effort should not be constrained to the atomized development of its elements.

The social development goals must be aimed towards improving men and his environmen

This collaborative approach ensures the viability of the development projects when the population takes them as own; likewise their participation in the planning phase provides important information that, otherwise, could not be obtained. With this collaborative strategy the individuals welcome the changes easier because they feel involved in the programs that produce positive changes in their life standards; it also abates the costs in the investment or operation of community programs and consistently reduces the timings of the expected results. Once the project or program is executed, the active and conscious participation of the population guarantees the execution of actions in an efficient way. This means that the supervision and follow-up of the program must be done in a more efficient way.

The active and conscious participation of the population guarantees the execution of actions in an efficient way

Finally, the joint participation has become an education alternative that contributes in an important way to the human development process, to the promotion of the essential powers of men including the respect and dignity of the individual, and it also favors the development of a self-confidence spirit.

The challenge for the strategic planning of the health services is to overcome the insufficiency of qualified human resources, the capacities required to undertake momentous tasks and the lack of resources to invest in capital goods. This is related to the exchange insufficiency in the international markets, despite the efforts to establish new conciliation instruments, such as the Free Trade Agreement among the North American countries.

Likewise, other elements are associated such as the low life standards of most of the population, especially of the manpower; the difficulty in the capacity to have a captive system of balanced imposition and, consequently, the struggle to maintain a health and social security system stabilized that gets unbalanced due to the social and economic difficulties, result of internal and external problems in the behavior patterns of the society.

It is essential to obtain the participation of the population in all the stages of the strategic planning of the health services

Any society in the world requires group collaboration strategies; in Mexico it is essential to obtain the participation of the population in all the stages of the strategic planning of the health services. One of the main aspects is to know the social demands and needs in order to modify the attitudes towards the harmful aspects of the reproductive health care.

The participation of the population in the planning of services has increased in the education level of the human resources, the consolidation of democratic institutions and the extension of the communication media.

It is widely accepted that the countries where population gets more and more involved in the decision taking processes, through organized groups, have better benefits in a shorter period than

societies with traditional schemes, in which the population does not participate regularly.

The main difference is that the most important resource in the social development processes is the population itself, because it is the ultimate beneficiary of the actions, based on the demands of the affected population. Finally, taking decisions with the participation of the society allows to know and consider the local socio-cultural variations and to allocate the local resources in a wiser way, in order to execute the required tasks successfully.

The most important resource in the social development processes is the population itself

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CHAPTER II

THE REPRODUCTIVE HEALTH.
AN INTEGRAL APPROACH

The current concept

The reproductive health must be considered as an integral part of the individual's health, inherent to life itself and an essential constituent of the bio-psycho-social welfare from the moment the individual is born until he dies, not only exclusively related to a fertility, procreation, sexuality or risk condition, but in the wider integration sense, with the traditional concept of health, because a healthy individual must necessarily have a healthy reproductive life. The contrary does not happen either, an individual with a biological, psychic or social unbalance can not have a complete reproductive health.

The reproductive health constitutes an integral part of the individual's health, inherent to life itself and an essential constituent of the bio-psycho-social welfare

A healthy individual necessary has a healthy reproductive life

In the conceptual framework, the term "trinomial" should be applied. This concept involves the couple man/woman united and the child or children, as shown in figure II.1; it is evident that the participation of a man and a woman is biologically required to procreate a new human being, even in the in vitro fertilization the participation of male and female cells is required. Since several decades ago the term "binomial" has been used to refer the intrauterine life of a new human being during the gestation period for medical attention purposes, in favor of both constituents of this binomial; however, the teleological pretension to include the term trinomial as a base of the integral reproductive health approach goes beyond the above mentioned and universally accepted concepts: the man is integrated in an active and responsible way in all the reproductive health processes with different connotations according to the role he assumes in each stage of his life including, for example, the care of his own bio-psycho-social balance as well as the participation as step father.

The trinomial made up by the father, the mother and the child is the base of the integral reproductive health approach

The intemporal conjunction of the family planning actions, the perinatal and infantile health constitutes, in an holistic way, the integral reproductive health approach

The intemporal conjunction of the family planning actions, the attention of the perinatal and infantile health constitutes in an holistic way, the integral reproductive health approach.

Figure II.1 Concept of the trinomial father, mother and child

The integral reproductive health approach is a constant education, promotion, prevention and rehabilitation process

The trinomial father, mother and child is considered within the integral and indivisible context of this intemporal conjunction of actions, immerse in a constant education, promotion, prevention and rehabilitation process in the broader sense and without establishing intervention limits for the ailments that could jeopardize or harm the individual, family or social welfare as shown in figure II.2

In each of these actions it is necessary to consider, as an essential aspect, the gender difference among the human beings and offer reproductive health services characterized by absolute confidentiality, detailed information and authentic equity.

Figure II.2 The integral and indivisible context of the education, promotion, prevention and rehabilitation actions

The integral proposal includes a direct intervention area that starts with the conception and lasts, for the child, 28 days after birth and, for the mother, 42 days after the delivery (Figure II.3)

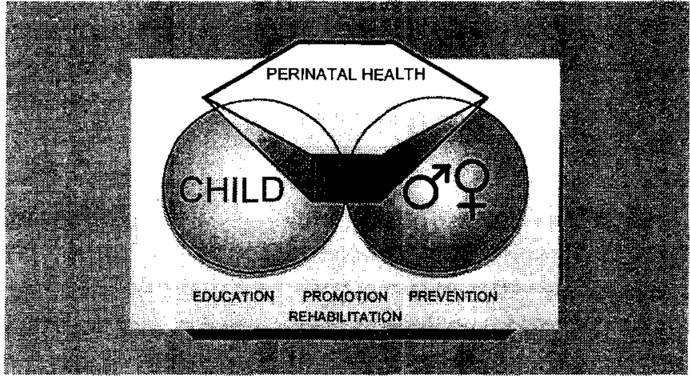

Figure II.3 The attention of the perinatal health in the integral reproductive health approach

This bimodal segment of the human being's life is called perinatal health care, which requires an integral approach and application of actions. We should be conscious that, with the active participation of the society and the natural evolution of the actions in the

The perinatal health will be the ultimate goal of the actions and the demand of the society by the beginning of the next century

family planning, the perinatal health will be the ultimate goal of actions and the demand of the society by the beginning of the next century.

In the integral reproductive health care approach, different periods in the life of the participants must be identified, as follows.

A trinomial must be established as an active principle: mother, father and child. The first sexual relation can lead to a permanent life style or to a separation with the consequent establishment of new couples, restarting in this way the possibility of establishing a trinomial.

During the life of the couple there are several critical moments that represent opportunity areas

During the life of the couple there are several critical moments which represent opportunity areas, such as before the creation of the couple and the first sexual intercourse, by the time of the union, before deciding to procreate, while procreating, during the gestation period, at the end of this period, between one pregnancy and other, when the couple decides to finish their reproduction life or when the fifth decade of life starts.

This involves a modification in the biological, psychological and social patterns, as well as alterations in the integral context during all their life, according to the different opportunities that they will necessarily assume, as it can be seen in figure II.4

The family is the undeniable nucleus of the society and the permanent institution for the preservation of the species

On the other hand, the third constituent of this trinomial is the child who, starts his participation in the trinomial at the moment of conception and it never ends, this concept goes in accordance with the family concept, as "the undeniable nucleus of the society and permanent institution for the preservation of the species", achieving in this way the concatenation of trinomials or families that

integrate and have integrated the social behavior of the mankind.

During the life of the child and before his integration into the reproductive or couple life, there are also critical moments that, as we have already mentioned, are opportunity areas where special attention is required because, in most of the cases, the participation of the parents and/or the service suppliers is essential due to the helplessness of the child and the attacks of the harmful environmental agents.

The critical moments for the child are: the pre and periconceptional periods, during pregnancy, the moment of birth, the neonatal period until the child is one year old, the first five years up to the adolescence, the adolescence itself (period of the vital cycle and not a critical moment) that requires special attention (Figure II.4)

The critical moments for the child are:
- **the pre and periconceptional periods**
- **the pregnancy**
- **the birth**
- **the neonatal period**
- **until the child is one**
- **the first five years**
- **up to the adolescence**
- **the adolescence itself**

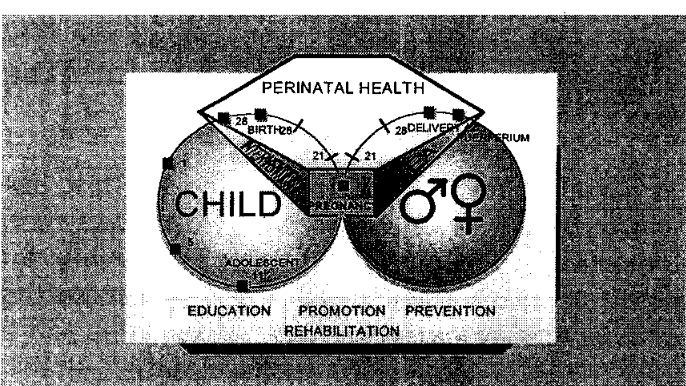

Figure II.4 The integral reproductive health approach

While referring to the adolescent, it is essential to remember that the vortex of physical, biological, mental, social and transformation events turn the child into a new being, some times with certain

The adolescence is a vortex of physical, biological, mental, social and transformation events that turn the child into

a new unstable being in constant development, that needs to be self-identified and located in the society as an independent individual

difficulties. This new person is in constant development in all the areas of the human being, and needs to be self-identified and located in the society as an independent individual, that will finally become "an adult", different to the adolescent and undeniable product of the experiences and interventions of the previous stages, besides the genetic components.

For this reason and in the integral reproductive health care approach, several critical moments can be identified for the adolescent, depending on the course his life takes.

The first critical moment for the adolescent is precisely before entering this stage

The first critical and transcendent moment for the future development of the adolescent is precisely before entering this stage; the health services suppliers must be one step ahead. The following opportunity areas depend on the course the life of the adolescent takes, i.e. if the adolescent decides to postpone the commencement of his (her) sexual life and reproduction until he (she) grows and matures and establishes a couple in the adult life. The opportunity is present during the whole period helping for the preparation of a future couple.

The adolescent with an active sexual life could have an unwanted pregnancy and, in this case, he (she) would join the trinomial concept. However, due to the instability of the adolescent couple, the result could be a single-parent family

In case the adolescent decides to start his (her) active sexual life, the intervention becomes more important in this stage and, after this, during the whole period. A pregnancy can be the result of this secular activity and, in this case, it becomes part of the trinomial concept with the consequent opportunity areas, apart from the intrinsic problems of the adolescence and the risks conditioned by the instability of the couple that could have as a result a single-parent family.

The youngster can decide to establish a formal couple, consolidating in this way the validity of the

trinomial However, there is a new opportunity area, i.e. to guide this adolescent couple until it achieves its bio-psycho-social "consolidation", as it is shown in figure II.4

Three processes have been established, all of them included in a single process aimed towards the integral reproductive health care approach; the participation of the above mentioned agents is dynamic and constitutes a constant cycle throughout the whole life.

Three processes included in a single process is the integral reproductive health care approach

Obviously in each of these processes action guidelines are established and specific interventions are proposed, in order to favor or limit the establishment of this cycle.

The assertiveness in the attention of the reproductive health involves several factors such as keeping a permanent evaluation process of the individual and environmental state in which the trinomial lives; offering continuity in the health attention of the individuals; establishing an efficient coordination of actions in the family health care attention; designing, developing and executing different activities aimed towards improving the social welfare and, finally, aiming the programs and activities designed to promote the reproductive health care with a family and not an individual approach.

The programs and activities designed to promote the reproductive health care must be aimed with a family and not an individual approach

The process that involves the perinatal health attention actions presents relevant characteristics included in this new approach. Traditional and organically the reproductive health care has been considered separately from the maternal and child health care, giving rise to a certain degree of separation between these factors; a clear disassociation has always prevailed between the maternal health care approach and the child care.

The current approach considers a more authentic integration of the mother with her child, from the fertilization phase until the trinomial father/ mother /child can be dissociated for relatively independent biological or social reasons

For health attention purposes, this care has been divided according to age groups (with epidemiological basis) into: perinatal, infantile and preschool. The current approach considers a more authentic integration of the mother with her child, from the fertilization phase until the trinomial father/mother/ child can be dissociated for relatively independent biological or social reasons as it is clearly shown in figure II.5

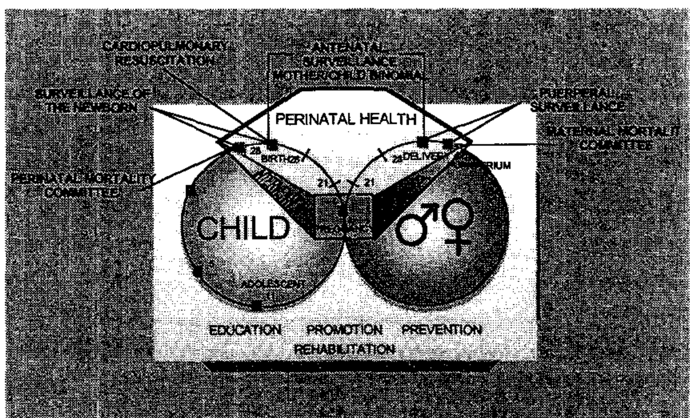

Figure II.5 The attention process in the perinatal health

As we will see later on, this process is integrally considered and closely interrelated to other programs.

A continuity and congruence line is established in child care since it is in the

When the perinatal stage finishes, the child is subject to the application of a completely different health attention and care scheme; in accordance with the integrity and to complement the actions executed in the previous stage, the process starts within the same approach, with supervision during the first year of life that, where the characteristics of the development requires different actions and care. However, in this integral approach, a continuity and congruence line is established in the child care since it is in the womb of its mother and during the different

stages of his development. It is endeavored to guide and support him in the following stages until the adolescence, where the child joins the reproductive health care processes directly, as it can be observed in figure II.6

womb of its mother and during the different stages of his development

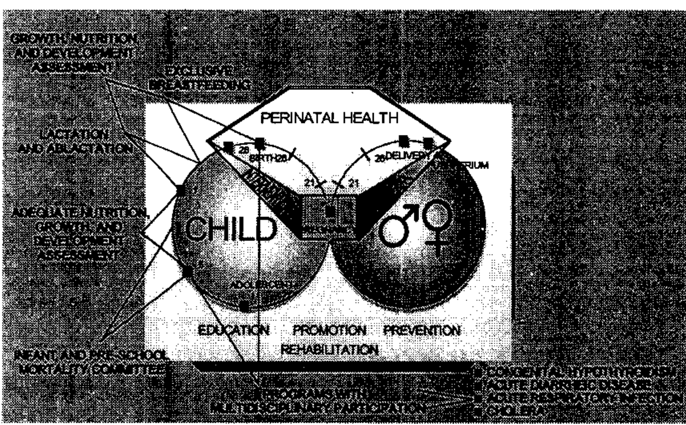

Figure II. 6 The attention process in the infantile health

If the human being has to be considered since his conception and from the ethic aspects of the couple to decide freely and in a responsible way the number and age difference among the children they want to have, the humanistic approaches of the human reproduction must also be observed.

Since more than two decades ago, when the family planning program was established in this country, the methods and strategies to approach women in order to incorporate them into the program have undergone important changes, allowing the ethical handling of the subject, nowadays called reproductive health care.

It is not a matter of figures or putting women a number in a family planning method; it is a matter of focusing the problem with the ethical and humanistic sense of the family environment, of the integral

The couple, with the ethical advice of the health team, becomes morally conscious of the responsibility that the conception of a new human being involves, in the best psychological, social, economic, individual and family health conditions

reproductive health care approach where the couple, with the ethical advice of the health team, becomes morally aware of the responsibility that the conception of a new human being involves in the best psychological, social, economic, individual and family health conditions.

The family planning understood as a permanent process in the life of the individuals, necessarily involves a healthy reproductive life

The integrated process in family planning activities is the cornerstone of the reproductive health integrity. The family planning, understood as a permanent process in the life of the individual, necessarily involves a healthy reproductive life and has an impact not only in the individual and his family (present or future), but in the society, the country and, obviously, in the welfare of future generations.

It includes, in a global way, the program for the health attention of the adolescent, the sexually transmitted diseases including HIV/AIDS and establishes the prolegomena for the incorporation of this population into the health care during the climacteric phase, the menopause and the prevention programs for cervical-uterine and mammary carcinoma

Within this integrity concept, family planning is a constant process in life itself; this concept joins in a substantial way the new approach of the reproductive health care program that, as it shown in figure II.7, includes the program for the health attention of the adolescent in a global way, the sexually transmitted diseases including HIV/AIDS and establishes the prolegomena for the incorporation of this population into the health care during the climacteric phase, the menopause and prevention programs for cervical-uterine and mammary carcinoma.

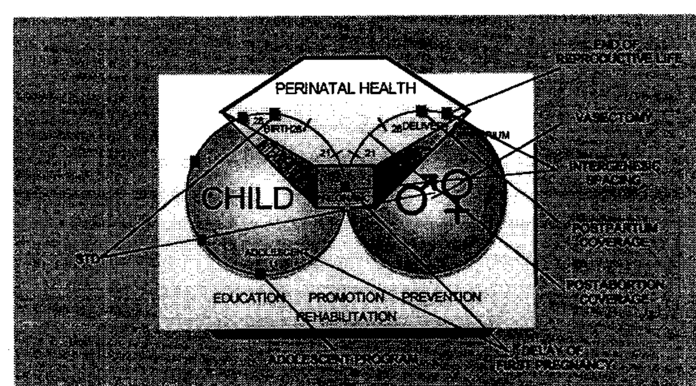

Figure II.7 The attention process in the reproductive health

Family planning is not only a strategic instrument of demographic balance, neither a resource of administration of methods for the regulation of fertility; in the current approach it is considered a life process that includes its whole bio-psycho-social environment, an attitude towards life and a fundamental element to achieve the family welfare in a more fair future.

The family planning is the cornerstone to achieve the family welfare in a more fair future

The interrelation of the processes in the Natural History of the Reproductive Health

If each of the previously described stages of the human being's life are conceptualized and included in the natural history of the reproductive health care, it will be understood that life itself, as a natural process, is constituted of several processes interrelated in such a way that a permanent bio-psycho-social balance is achieved.

In the search of this balance and, hence, of the health of the individual, we face an irrefutable reality: the development process of the sexuality, the reproduction process and their consequences have a direct influence and constantly interact with other manifestations of development, health or sickness, with their consequent social repercussions.

The development process of sexuality, reproduction and their consequences have a direct influence and constantly interact with other manifestations of development, health or sickness, with their consequent social repercussions

This takes us to reflect on the current health and reproductive health concepts, as an indivisible whole that, from the teleological point of view, is the natural history of the human being's life itself in which, right from its beginning and until death, there is a concatenation of interdependent events constantly happening with a permanent cause-effect relation; i.e., there is an interrelation of processes that finally or, in any moment, will have an impact on the personality, health, balance and identity of an individual, making him unique, different to the rest

and paradoxically part of a common denominator that constitutes the family, the society and the humankind.

The interrelation of processes in the natural history of the reproductive health is similar to the interrelation that prevails during the whole existence

The interrelation of processes in the natural history of the reproductive health is similar to the interrelation that prevails during the whole existence and is involved in the processes and balance of every social manifestation.

The processes in the holistic health attention of the reproductive health care

Within the context of the integral approach and with the incorporation of the methodology called Strategic and Epidemiological Planning, it is necessary to redefine the type of administration for the attention of the reproductive health

Within the context of the integral approach and with the incorporation of a methodology called Strategic and Epidemiological Planning, it is necessary to redefine the type of administration for the delivery of reproductive health care, that clearly indicates the importance of the processes beyond the functions and establishes an interrelation among the above mentioned programs. This makes us define the difference between functions and processes: the first ones are identified as isolated activities that occur in a vertical way and require a certain ability for their execution.

The processes are identified as continuous wholly integrated tasks where several functions are involved and that, when executed jointly, give an added value

On the contrary, the processes are defined as continuos wholly integrated tasks, where several functions are involved and that, when executed jointly, give an added value to the participants in a horizontal way (service supplier and beneficiaries). The processes are always associated to well-identified participants.

In the administration of processes, different heads of division are appointed to execute different tasks in a traditional organic hierarchy, as it is shown in figure II.8

The only way institutions can create value for the participants is through their processes; the institution of regulations and the supervision and establishment of goals, are only functions and do not create any value by themselves.

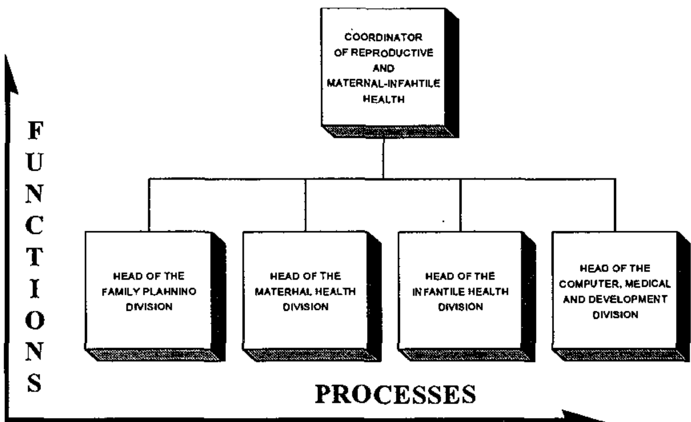

Figure II.8 The administration of processes to obtain an added value

The integral process for the attention of the adolescent or the integral health care of the mother/ child binomial produces an added value for the participants.

As it can be inferred from such an administration scheme, the participation in the activities and tasks part of a process is collegiate, multidisciplinary and executes functions of different programs in an horizontal way, allowing to produce an expected added value.

The participation in the activities and tasks part of a process is collegiate, multidisciplinary and executes functions of different programs in an horizontal way, allowing to produce the expected added value

In reproductive health care, for example, the attention process for pregnant women would be given through a number of activities that must include functions from the following areas: maternal health, child health, family planning and demography, with the

consequent assignment of specific tasks in the different activities that constitute this process.

Within this context, actions that include the perinatal health care, child health care and family planning programs are not considered independently, neither as a group of functions, but as the integration of the different multidisciplinary processes we have mentioned, in such a way that holistic solutions can be presented through the implementation of interdependent processes, whose final product must agree with a proposed integrating approach.

The applicability of the social values and the equity judgments in the integral reproductive health care approach

The selection capacity makes us take decisions concerning the quantity, type of resource and programs or services to be provided, considering limitation of resources, the excessive demand of health care and the unattended needs in the reproductive health services.

The reproductive health care, considered from different points of view, must be implemented from abstract to concrete issues; i.e. that for the health professional, either the one who offers clinical services, the one who plans the programs related to the reproductive health priorities of a determined group of persons or pathology or those who take decisions for the allocation of resources, the health, sickness, disability, loss of healthy life years (DALYs) and death have their own interpretation.

The conceptualization of these conditions in the deterioration of the reproductive health of the insured population requires to be focused within a framework where health and disease become a social

phenomenon. The difference between definitions and approaches is closely related to the scale of values of the population we refer to in the field of reproductive health. On the other hand, these scales are related to the judgments of the beneficiaries, where the rules, participants and scenarios are considered.

The difference between the definitions and the approaches is closely related to the scale of values

In the evaluation, achievements are closely related to the basic population statistics and to the reproductive health indicators of the population. If the community judges the results of the actions executed to meet the needs and demands of the insured population these results can be transformed in order to make them measurable and assessable.

If the results of the actions executed to meet the needs and demands of the insured population are judged by the community, these results can be made measurable and assessable

By definition, it could be assumed that the better judge to determine welfare is the consumer of a service of reproductive health program himself. The beneficiary and his family are the ones who can determine that value of their own benefit, if we consider the following premises true: that the individual and his family are the ones who can judge their own welfare better than anyone and that the insured workers have the capacity to establish judgments in order to decrease the family and individual health risks, keeping in this way the balance of their own welfare.

The individual and his family are the ones who can judge their own welfare better than anyone

However, it is important to mention that the paradigm of this balance can be affected by the utilization level of a service or program and this behavior can differ from the knowledge level the beneficiary has on his individual or family health or on the effects for the treatment of a certain pathology, within the framework of the reproductive health care.

If we assume this, we should accept that some individuals identify the deterioration in the health of

Some individuals identify the deterioration in the

health of their families only when it is related to the natural aging process

their family only when it is related to the natural aging process. This means that any time a member of the family is ill, when there is pain or a limited activity, it will be considered abnormal and the illness will take the individual by surprise. While searching help for the recovery and because the individual does not have enough information to know the differences on the treatment, the health establishment and the disappearance of the problem or ailment will be interpreted by the doctor or the health staff. This concept is called "need" because the beneficiary did not demand any service such as the insertion of a IUD or the vasectomy. In these cases, the attention need is result of the evaluation of the medical or health staff, in terms of quantity or quality of services, changing in this way the social values the family has in the field of reproductive health care.

Concerning the achievement of an equity between the needs and demands of the insured population, the reproductive health is also part of these social needs

Concerning the achievement of an equity between the needs and demands of the insured population, the reproductive health care is also part of these social needs.

Even if there is a tacit agreement on necessary issues or on others where an individual obtains because he needs them, everything will finally depend on the demands the individual has for his own health care and the attention of his family. If it was possible to standardize any other demand, either the economic income, improvement of the environment or better housing conditions, the health value would vary according to the opinion of the individuals.

The equity in the delivery of reproductive health care necessarily involves the values and interests related to the allocation of resources to meet

When we talk about equity in the delivery of reproductive health care, we also talk about the values and interests related to the allocation of resources to meet different needs or social demands connected to the individual, perinatal, maternal, child and adolescent health. In this equity, an

individual component can be identified with a trend to meet the individual needs and, simultaneously, a social conscious component can be observed where the solution benefits more individuals or groups.

different needs or social demands connected to the individual, perinatal, maternal, child and adolescent health care

The social acceptability of the reproductive health services is conditioned by the impact level that any intervention of an institution like the IMSS has. Likewise, the beneficiaries will accept a program or service with quality attention, when the close relation of the service offered meets the benefit, translating it into welfare for the beneficiary, his family and the community.

Unlike the immediate benefits that the medical interventions involve and despite these interventions can be evaluated through registers in clinics and hospitals, the social acceptability can only be assessed through the public opinion, who are the final consumers of the service.

The social acceptability can only be assessed through the public opinion, who are the final consumers of the service

One of the most important aspects is the equity in the supply of reproductive health services; in this context it is important to observe an equity in the expense by service or program, according to the needs or demands of the beneficiaries and to the age group. Equally important is the equity in the opportuneness of a service or program, in such a way that the beneficiary considers it adequate, always considering the education level of the consumers and their knowledge on the way IMSS meets their reproductive health needs or demands.

The reproductive health is cause and effect of development and its structure is made up by multifactorial components, deeply immerse in the social values of the population. The equity involves the establishment of a fair discrimination among different groups or people, always favoring the most

The reproductive health is cause and effect of development, and its structure is made up by several components, deeply immerse in the social

values of the population

needful population. In order to counteract this inequity, there must be an active and conscious participation of the community, especially to improve the unbalance that prevails among those populations considered in the lowest national sanitary level. The transectorial actions with a planned intrasectorial coordination in the definition of adequate strategies for the health care of the most vulnerable population, have had encouraging results in the short run.

Marginalization

The marginalization is a complex social reality, result of the development way adopted by the country during the last half of the century. For practical purposes and in accordance with different studies made in the Mexican Republic, it constitutes a summarized indicator (IM) that discriminates municipalities and states based on the global impact of the deprivations suffered by the population such as: two situation conditions of basic education, five of housing, result of living in localities of less than 100 inhabitants and of the insufficient income to purchase the basic products.

It is important to point out that one of the most important activities in the human evolution is the productive work, especially and for natural survival reasons, the one related to the agricultural production of strategic priority for the population, included in the integral reproductive health approach.

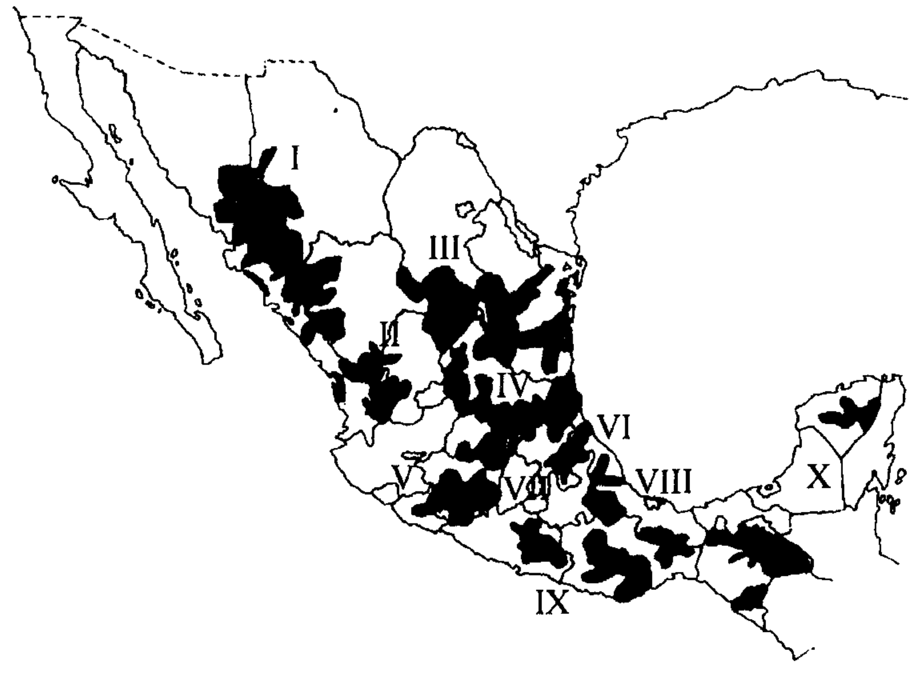

Figure II.9 Regionalization of the marginalization

There is no doubt that the agro-alimentary crisis occurred during the last three decades has had an important impact on the integral health of the marginal population, result of several factors that have affected the life of the producers and consumers.

The agro-alimentary crisis occurred during the last three decades has had an important impact on integral health of the poor population

This marginalization representation in figure II.9 includes the above mentioned reflections and that is represented as an indicator. It shows some of the socioeconomic conditions of certain municipalities and states according to the global impact of the deprivations suffered by the population for living in certain areas of the country or for working in primary activities of the national economy.

The marginalization index by state allows us to define ten big

As it can be seen in this figure the marginalization index by state allows us to define ten big regions

regions related to other procedures executed with geo-economic, urban and immigration criteria

related to other procedures executed with geo-economic, urban and immigration criteria. This regional behavior points out the marginalization as a result of several elements and can only be reduced through global strategies that do not depend on the State expense.

It is interesting to note how the daily life events can become indicators which represent important comparisons that compel us to define the magnitude of the problem referred to a general situation; such as in the identification of areas with higher social polarization, as well as in the specific exclusions suffered by the population. In a stratification exercise at municipal level of each of the ten regions shown in figure II.9, the presence of the seventeen most vulnerable micro-regions could be inferred. 11.5 million mexicans, considered as subjects of intervention by the strategies of the integral reproductive health approach, live in these regions. These inhabitants represent 14.18% of the total population and include 93% of the municipalities identified as "of high marginalization" in the 1990 census results.

There is no doubt that the characteristics of this highly marginalized environments, besides having a high social internal polarity, demand the application of specific interventions due to the geographical and social diversity. With the purpose of being more explicit, the microregion I, occupied by 602,676 inhabitants could be identified in the same figure. This north west region, located at the states of Sonora, Chihuahua, Durango and Sinaloa, is made up by 40 municipalities. Out of these, 6 are of extremely high marginalization, 18 of high marginalization and 16 of low marginalization. On the contrary, the microregion IX located between Guerrero and Oaxaca is dwelled by 469,415 people

The microregion located between Guerrero and Oaxaca

and made up by 29 highly-marginalized municipalities. Only one municipality is considered of high social lag.

is dwelled by 469,415 people and is made up by 29 highly-marginalized municipalities

In order to have a better approximation of the prevailing social and economic lag, it could be assumed that the population with the highest exclusion levels lives in 50 municipalities considered as the most populated and marginalized of this country. Out of these, more than 50% are indigenous people. Seen from another point of view, it is evident that there are 390 municipalities inhabited by 70% or more indigenous people, occupying a surface equivalent to the State of Oaxaca, dwelled by 2.86 million people. 92.6% of the inhabitants live under high marginalization conditions. Citizens without basic education survive in these areas of the national territory in inadequate houses located at villages of less than 2500 people. 85% of these families do not earn a sufficient income.

There are 390 municipalities inhabited by 70% or more indigenous people, occupying a surface equivalent to the State of Oaxaca, dwelled by 2.86 million people. 92.6% of the inhabitants live under high marginalization conditions

In order to counteract these problems and due to the presence of international imperfect oligarchic, and even monopolistic work markets, it is essential to submit a proposal in order to promote an increase in productivity, to select the appropriate technology that preserves the environment, to achieve an optimum use of the natural resources and to promote a technological change in the strategic productive sector of the country. This innovation should allow the design of a new organizational structure with powerful linking procedures among science, technology, production, distribution and supply in such a way that the strategy guarantees equity in the production, availability and accessibility of the basic cereals and products for the marginalized population.

It is essential to propose a change that promotes an increase in productivity, to select the technology that preserves the environment, to achieve an optimum use of the natural resources and to promote a technological change in the strategic productive sector of the country

Apart from the profitability of what each of the productive economic activities could obtain, the

following aspects must also be observed: the equity in the production, a honest commercialization system and a timely food supply in order to conceive it not only as an extraction activity, but as an investment and development which could guarantee social short and long term stability. This stability should promote the independent economic development and ensure its existence as raw material supplier in almost all the productive chains of the national economy.

The ethnic and social struggle reasons and the difficulty to cope with the transformation processes aimed with innovative political and economic trends, are consolidated to create a schema representative of the situation of the country. All this aspects become worse due to the geographical diversity, the still high demographic growth indexes, the inadequate guidance of the different human settlements, an unwanted behavior in the epidemiological profile and the cultural model that still prevails in our population, having as a result a common productive backwardness. Hence it is necessary that the public and private interventions invite the affected population to participate in the decision making process in such a way that their participation brings proposals for the productive recuperation in the geo-economic field and in the specific needs, detecting and modifying the unhealthy habits and customs and promoting the development of the population, especially of the marginalized areas.

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CHAPTER III

TOWARDS A NEW REPRODUCTIVE HEALTH ERA

The reproductive health in the universal scope

The XXII Pan-American Conference for the Decrease of the Maternal Death took place in 1990, and in September the "World Summit for Children" took place in New York. Mexico participated in favor of the future generations and committed itself to improve the health of the mother and the child during the period 1990-2000 by:

The World Summit for Children establishes the action plan to improve the health of the mother and the child during the period 1990-2000

- reducing the maternal mortality rate by 50%
- reducing the perinatal, infantile and pre-school mortality rates by 30%
- reducing the serious and moderated malnutrition in children younger than five by 50%
- reducing the low weight rate by the time of birth by 30%
- reducing anemia incidence in pregnant women by 30%
- achieve a 100% operation of the maternal-child epidemiological surveillance system
- the elimination of the neonatal tetanus

The most important commitments made by Mexico to be achieved by the year 2000 are:

- **reduce the maternal mortality rate by 50%**
- **reduce the perinatal, infantile and pre-school mortality rates by 30%**

These commitments have been included in the National Health Plan and, by the year 1995, the results have been quite satisfactory, especially those concerning the mortality because specific actions have been established in order to reduce rates that prevailed by the beginning of the 90's. In the IMSS, this was translated into a maternal mortality rate of 34.7 by every 100,000 children born alive and the perinatal mortality rate I was of 15.19 by every 1000 births, with a decreasing trend which will allow us to achieve the above mentioned goals by the end of the century.

In the year 1995, the maternal mortality rate was of 34.7 by every 100,000 children born alive and the perinatal mortality rate I was of 15.19 by every 1000 births in the IMSS

The Mexican government welcomed the initiative of the WHO and the UNICEF to establish a program

that rescues and promotes the practice of the maternal lactation. The background of this program is the "Inocenti Declaration" which in the year 1990 urged governments of all the world to apply ten steps towards a successful lactation and the code of commercialization for the maternal milk substitutes.

The Baby friendly hospital initiative was established in Mexico in 1991

In this way, the strategy "Baby friendly hospital initiative", was established in Mexico in 1991. This strategy includes ten basic steps in order to promote lactation and to meet the goal to finish by the next year the free delivery of industrialized milk. However, by 1992, fifteen steps more were added aimed towards improving the conditions of women in their environment. Since then the strategy has been known as "Baby and mother friendly hospital initiative".

At the moment the health sector of Mexico participate with the UNICEF in training, advisory and certification activities of those hospitals which want to join this initiative. It is important to mention the increase of hospitals participation, particularly in the IMSS where, during 1996, it is endeavored to certify all the hospitals that could successfully operate with this strategy, i.e. 187 hospitals. At the same time we will start the re-certification process that will finish by the year 2000. In this way, it is endeavored to strengthen the maternal lactation concept among the population.

This international effort has had a positive impact both, in the developed countries and in the less favored regions; however, actions must be executed within the ethical limits and the professional conduct code of the health team that promotes this program, providing unprejudiced and veridical information, emphasizing the advantages the breast feeding gives both, to the mother and to the child without excluding the formulas, despite the risks involved in

the handling and preparation of substitutes, could be an alternative for the adequate feeding of the child. This consideration is based on the fact that the family has the right to receive opportune professional information on the subject and to decide freely the best alternative for the current and future welfare of their progeny and for their own welfare.

Another aspect included in the baby friendly hospital initiative is the field of the nutritional health, i.e. not to provide biased information where results of the medical knowledge for social welfare are misled to support the economic benefits of the specialized industry.

During the International Conference on Population and Development which took place in El Cairo in 1994, attended by representatives of 184 countries, the current reproductive health concept was accepted by consensus:

"The reproductive health is a general physical, mental and social welfare state and not only the absence of illnesses or ailments, in all the aspects related to the reproductive system, its functions and processes".

Consequently, the reproductive health includes the capacity to enjoy a satisfactory sexual life, without risks, being free to decide when to procreate and how often.

These conditions involve the right of men and women to obtain information and have access to safe family planning methods, as well as to receive health services aimed towards reducing the risks and complications during the pregnancy and delivery, offering couples the maximum possibilities to have healthy children.

During the International Conference on Population and Development which took place in El Cairo in 1994, the current reproductive health concept was accepted by consensus

The reproductive health:

- **is a general physical, mental and social welfare state and not only the absence of illnesses or ailments, in all the aspects related to the reproductive systems, its functions and processes**
- **it includes the capacity to enjoy a satisfactory sexual life, without risks and complications, being free to decide when to**

procreate and how often

- **It involves the right of men and women to obtain information and have access to safe family planning methods, as well as to receive health services aimed towards reducing risks and complications during the pregnancy and delivery, offering the couples the best possibilities to have healthy children**

It also includes the sexual education, health care in the field of reproduction and sexually transmitted diseases, as well as an agreement on the right of the adolescents to the services offered by the family planning and reproductive health programs, ensuring privacy and confidentiality.

The Mexican delegation that attended the Conference celebrated in El Cairo, approved the Action Program and committed itself to have a political and practical participation, emphasizing the basic education, the development of the women's potential and the active and responsible participation of men in the reproductive health and family planning programs.

The IV World Conference for Women took place in Beijing, China in 1995

During the IV World Summit for Women that took place in Beijing, China, from 4 to 14th September 1995, more than 180 delegations from member countries of the United Nations discussed, among other problems, the increase in the number of poor women, the access and permanence of the female population in the school, their health attention requirements, the violence against women, their access to leading positions and the rights of the girls.

The human rights are women's rights and vice versa

It was ratified the "human rights are women's rights and vice versa". The rights of procreation, sexual and reproductive health were reaffirmed, and the abortion was reproved as family planning method.

The Mexican delegation joined the action platform of Beijing and committed itself to continue the actions aimed towards offering the population the right to reproductive health.

The Technical Secretariat of the National Coordinating Committee for the IV

In Mexico the Technical Secretary of the National Coordinating Committee for the IV World Conference for Women, has made the following proposals that

reflect the sprit of the seven main objectives of the Conference. These concepts are merely postulates rather than actions or action criteria which have been discarded:

- promote the social recognition of the women's contribution to the national welfare and development and encourage equitable relations between men and women
- ensure the protection of the human rights of women and eliminate all violence and discrimination actions
- improve the welfare levels of women and their life standard
- improve the situation of the vulnerable groups
- increase the work and income opportunities of women
- favor the social and political participation of women and their access to the decision-making process
- develop government and social procedures to establish, follow up and evaluate policies and actions for the development of women

As it is evident, these proposals constitute an extensive list, but only those relevant for the definition process of the National Women Program have been considered.

Others were included in accordance with the strategies, priorities and resources that the Federal Executive power established.

These universality aspects can be observed in figure III.1

World Conference of Women proposed to:

- **improve the welfare levels of women and their life standard**
- **favor the social and political participation of women and their access to the decision-making process**

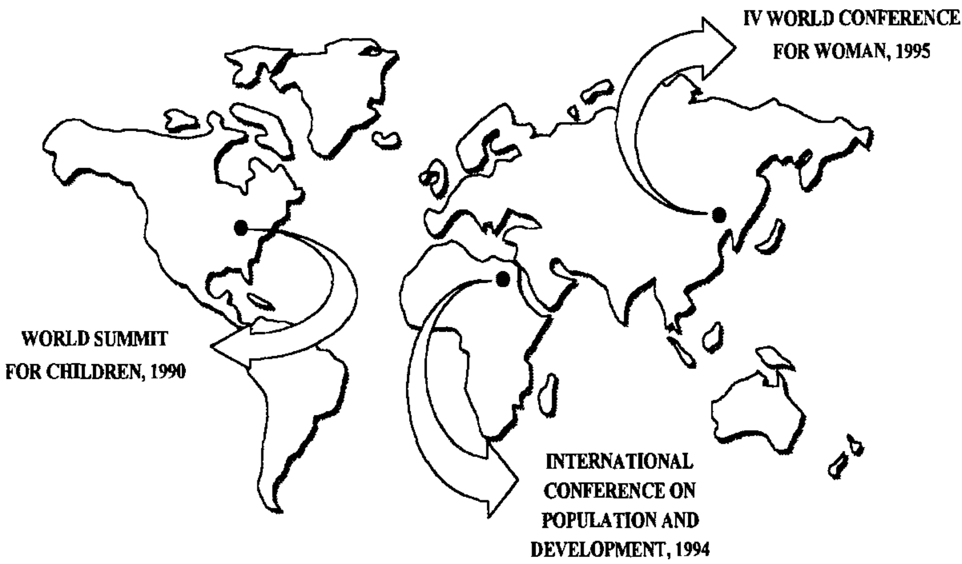


Figure III.1 The reproductive health in the universal scope

The framework of the federalism in the reproductive health

National Development Plan 1995-2000

The National Development Plan 1995-2000 promotes social development to the Mexican population in a fair and equitable way

The Federal Executive Power issued in the month of June 1995 the development plan to be followed by the country until the end of the century. It describes the essence of the current administration and includes the following five challenges:

- sovereignty
- rule of law
- democratic development

- social development
- economic growth

In the field of social development, the objectives are to:

- equal the social development opportunities
- promote the balanced development of the population
- give priority to the attention of the population with greater economic and social disadvantage
- promote an integral and decentralized social development policy

The social development of the population is, undoubtedly, the cornerstone of this leading plan. The Mexican need to be treated equally in all the fields and the government has committed itself to meet this demand, in favor of the integral welfare of the Mexican families, establishing for this purpose guidelines for the strategies aimed towards achieving the balanced development of the population. These guidelines include, among other important elements: vaccination, nutrition and reproductive health care based on the premise that, while offering social development to the Mexican population in a fair and equitable way, the country will be closer to become a free, sovereign and democratic country, with the consistency that a developed economies offer.

Nutrition, vaccination and reproductive health services will constitute the main guideline of the basic package

The strategies proposed to achieve the social development objectives are:

The strategies proposed to achieve the social development objectives are:

- **to reform the National Health system**
- **to ensure a basic package of services**
- **to reorganize the budget**
- **to increase the efficiency**
- **to reduce the demographic growth rate, respecting the individual rights**

a) to reform the National Health system in order to improve the quality of the services and to increase their coverage
b) to ensure a package of basic services to all Mexicans
c) to reorganize the budget and to increase the efficiency of the institutions
d) the nutrition, vaccination and reproductive health services will constitute the main guideline of the basic package
e) to reduce the demographic growth rate, respecting the individual rights in order to expedite the process and the welfare of all the population

National Population Program 1995-2000

The objectives, strategies and actions proposed in the National Population Program comply with the instructions given in the National Development Program concerning the establishment of a specific program on this field.

The main objective of the National Population Program 1995-2000 is to contribute, through the regulation of the population phenomena, to ensure a fair and equitable participation of the Mexican population in the development benefits

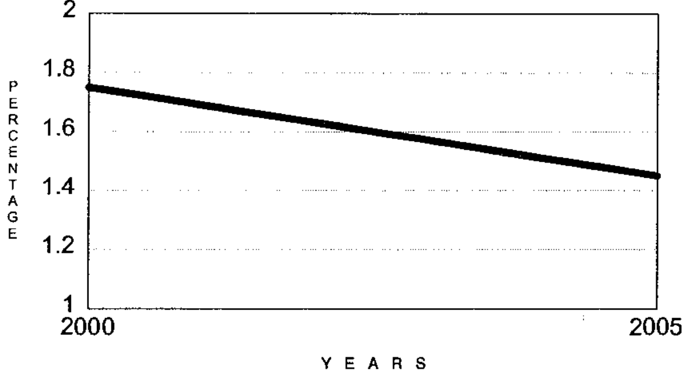
In this way, the program meets the spirit of the plan and includes an integral proposal, whose main objective is to contribute, through the regulation of the population phenomena, to ensure a fair and equitable participation of the Mexican population in the development benefits.

The reproductive health care must necessarily be included in the population and demographic context because, in order to achieve demographic goals, it is essential to ensure to the population the right to an informed, consciously-planned and safe sexual, reproductive and family life, within an equal, free and fair framework.

The following future goals and perspectives of the population are also included in the program: it is

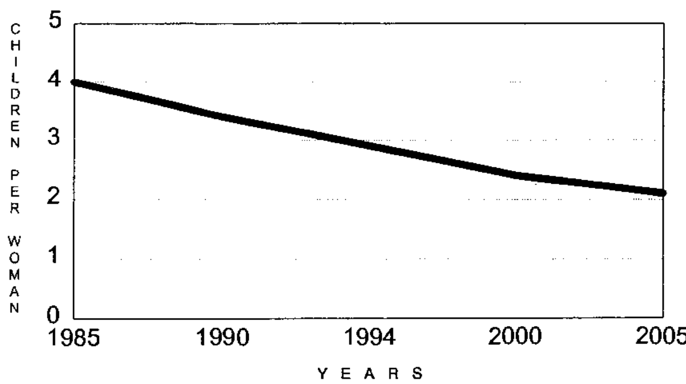
endeavored to achieve a natural growth rate of 1.75 people per 100 inhabitants in the year 2000 and of 1.45% in the year 2005. This would mean to reduce the global fertility rate to 2.4 children per women in the year 2000 and 2.1 children per women in the year 2005, as it is shown in figures III.2 and III.3.

In this connection and in terms of population volumes, the number of inhabitants of the country would go from 90.8 million in 1995 to 130.3 million in the year 2030, as it is shown in figure III.4



It is endeavored to achieve a natural growth rate of 1.75 people per every hundred inhabitants in the year 2000 and of 1.45% by the year 2005

Figure III.2 Natural growth rate. Projection by the year 2005



The global fertility rate would be reduced to 2.4 children per women in the year 2000 and to 2.1 children per women in the year 2005

Figure III.3 Global fertilization rate. Projection by the year 2005

This would mean that the total growth rate would decrease from 1.78 people per 100 inhabitants in 1994 to 1.45% in the year 2000, to 1.18% in the year 2005 and to 0.96% in the year 2010, as it is also shown in figure III.5

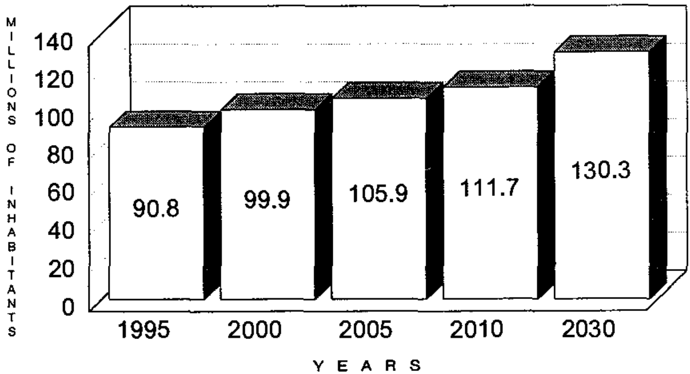
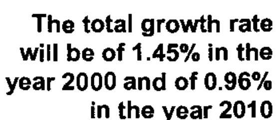


Figure III.4 Projection of the number of inhabitants by the year 2030



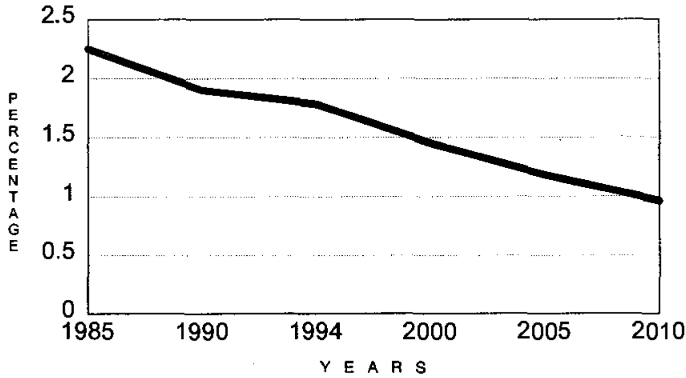
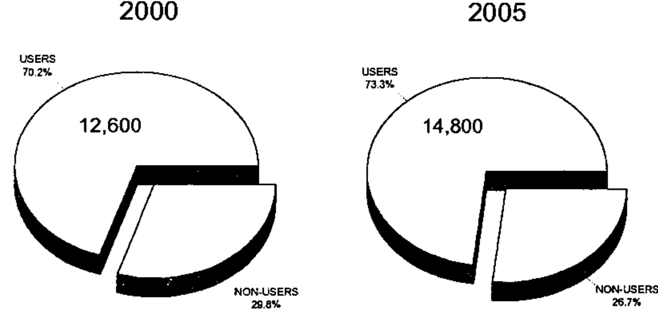


Figure III.5 Total growth rate. Projection by the year 2010

Due to the fact that in Mexico the contraceptive practice has been strongly associated to the decrease in the fertility and, therefore, to the population growth, it is necessary to strengthen the family planning program and to increase the use of contraceptive

methods by women in procreation age, as it is shown in figure III.6. In the rural area, this would mean to increase this prevalence from 44% in 1992 to 57% by the year 2000.



The number women in procreation age that will use contraceptive methods will be 12,600,000 by the year 2000 and 14,800,000 by the year 2005

Figures in thousands

Figure III.6 Prevalence of the use of contraceptive methods. Projection by the year 2005

In brief, the combination of the different components of the demographic phenomena shows a clear trend towards the aging process, characterized by a decrease in the infantile mortality rate (Figure III.7), a longer life expectancy and a higher proportion of people older than 65, with the consequent increase in the average age of the population (Figures III.8 and III.9)

In view of the above mentioned considerations, it would be easy to infer the implications that this would have for Mexico and for the future generations, the actions that both, government agencies and society must undertake because the health and social welfare infrastructure demands a fast and efficient adjustment to meet the needs and demands of the population, with an epidemiological and demographic pattern as the foreseen ones.

The demographic trend inclines itself towards an aging process, with:

- **a decrease in the infantile mortality**
- **a longer life expectancy**
- **a higher proportion of people older than 65**

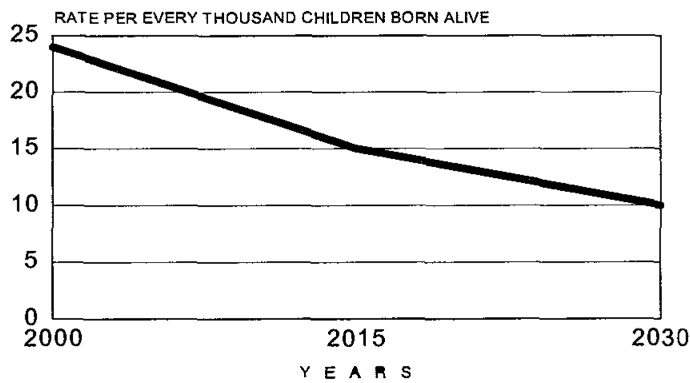


Figure III.7 Infantile mortality rate. Projection by the year 2030

By the year 2030, there will be 130,300,000 inhabitants, out of which 11.9% will be older than 65 and the average age of the population will be of 37

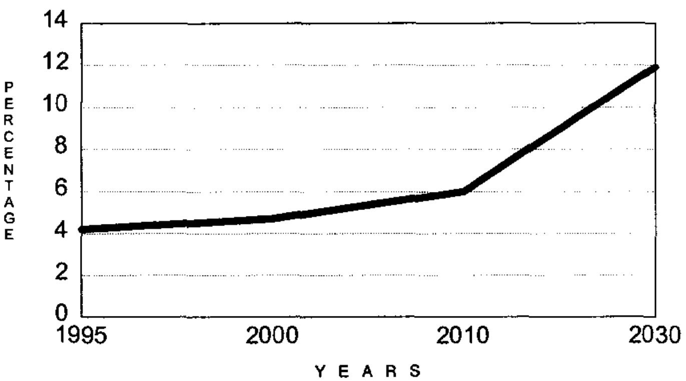


Figure III.8 Proportion of the population older than 65. Projection by the year 2030

It is clear, in order to achieve this scenario, it would be essential to include the reproductive health concepts in the daily life of the present and future generations, turning them into a life style.

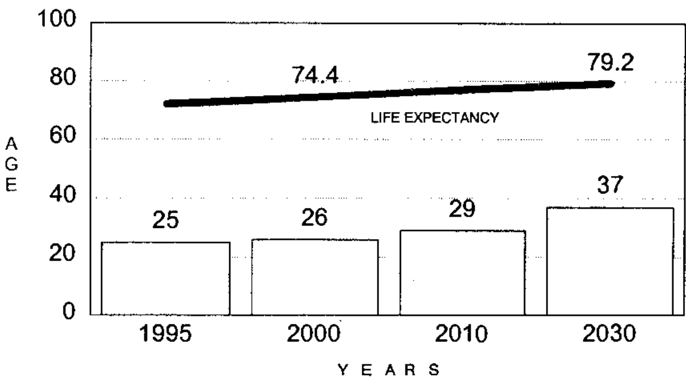


Figure III.9 Average age of the population and life expectancy. Projection by the year 2030

In face of these expectations, the IMSS, as the main social security institution of Mexico, is preparing itself to continue offering a qualified service and giving pensions to the insured workers. In this way, the Federal Executive proposal to reform the social security in Mexico was recently passed by the legislative power (this proposal will be discussed in detail later on).

The global reform to the health sector represents a first step towards a more fair future

This initiative is part of the global reform to the health sector and represents a first step towards a more fair future.

The family planning program must consider the cultural, social and economic characteristics, as well as the idiosyncrasy of the present and future generations

While strengthening the family planning program, the following aspects must be considered: the demographic goals, the cultural, social, economic characteristics, the idiosyncrasy of the present and future generations that, in a country like Mexico, would be translated into different criteria and demands. The reform should be based not only in biological aspects, but on humanistic, human rights, ethic and social principles also, demanding eclectic attitudes from the government and especially from those involved in the planning and programming of the health systems and population policies.

In this way, when we talk about family planning or reproductive health, we must think about the right of the families to a quality life, to warm medical attention and to be fully free to decide, to procreate, to plan...

One of the main purposes emanated from El Cairo is to support a new strategy that emphasizes the integral links between population and development with the purpose of meeting the demands of women and men, more than achieving demographic goals

It is a fact that the effective use of the resources, knowledge and technology in order to achieve a social equity and a sustained development in the execution of the reproductive health programs, is conditioned by economic and political obstacles. The association of the objectives included in the General Population Law approved in 1994, the considerations included in the National Population Program 1995-2000 and the World Action Plan on Population approved in September 1994 in El Cairo for the next 20 years, would be translated into one of the main purposes emanated from the summit aimed towards..."supporting a new strategy that emphasizes the integral links between the population and the development with the purpose of meeting the demands of women and men, more than achieving demographic goals"...

National Women Program 1995-2000

The National Women Program 1995-2000 emphasizes the urgent development and equity need for the girls and women of Mexico

Within the framework of the social policy of the federal government, this program was presented in the month of March 1996. This program establishes the current situation of women in all the fields and emphasizes the development and equity need for the Mexican girls and women. Nine strategic lines were included to promote the welfare of women:

- equitable and undiscriminated access to education
- promotion of an effective, opportune and quality health care system
- integral attention of the poverty suffered by women, and

- increase of the work opportunities and defense of the worker's rights

There is an urgent need to meet the development and equity demands of women, with the strategies included in the National Women Program. In this way a step forward will be given towards meeting this social obligation. It is evident that a reproductive health care approach such as the one included in this book, strengthens the program as well as the integrity concept due to the undeniable congruence between the government policies and the way to handle the women's problems always with an integral approach, emphasizing the observance of the gender and equity principle that will ensure a full life option for women on the threshold of the next century.

Women must be respected within the context of the equity principle and with the gender perspective

Reproductive Health and
Family Planning Program
1995-2000

The Health Minister of the Mexican Government formally installed the Inter-institutional Reproductive Health Care Group for the period 1994-2000 in Mexico City, on 15th February 1995. This group is made up by institutions of the National Health System, the Secretariat General of the National Population Council and the non-government organizations that execute reproductive health activities. After several work sessions, they finalized the Reproductive and Family Planning Program 1995-2000 published in the month of April 1996.

In Mexico, the Inter-institutional Reproductive Health Care Group is constituted by institutions of the National Health System, the General Secretariat of the National Population Council and the non-government organizations that execute reproductive health activities

The main action included in this program is to improve the reproductive health level of the trinomial father/mother/child by applying general and specific strategies with a more equitable participation between men and women, that promotes a change in the reproductive behavior pattern of the couples.

The main action of the Reproductive Health and Family Planning Program 1995-2000 is to improve the reproductive health

level of the trinomial father/mother/child

For this purpose, it is essential to postpone the age of marriage and the age to procreate the first child, as well as to increase the age difference among the children and conclude the procreation period at an early age, guaranteeing a decrease in the morbi-mortality of the binomial mother/child, an integral development of children and the attention of the reproductive life of the adolescent.

The general strategies include:

- **a more equitable participation between men and women**
- **the postponement of the age of marriage and the age to procreate the first child**
- **an adequate age difference among the children and the early conclusion of the fertility period**

The goals of the program were established in compliance with the guidelines of the Reform Program of the Health Sector and the National Population Program.

The commitment is to achieve a prevalence of 70.2% in the use of contraceptive methods among the women in procreation age by the year 2000, i.e. an absolute number of 12.6 million users. This would enable us to achieve a global fertility rate of 2.4 children per women by the end of the century. Particular attention is given to the unmet needs and demands, emphasizing the most vulnerable groups of the population and increasing the variety of contraceptive methods.

The coverage of the specific integral health attention services for the adolescents must be increased, emphasizing the establishment of strategies to prevent unwanted pregnancies and sexually transmitted diseases

By the year 2000, the coverage of specific integral health attention services for adolescents must be increased. The prevalence in the use of contraceptive methods, by those who have already started a sexual life, will increase 60% and specific strategies must be established in order to prevent unwanted pregnancies and sexually transmitted diseases.

During the same period 1995-2000, the maternal mortality must decrease 50% and the early neonatal mortality 20% when compared to 1990 registers. Likewise, these efforts must increase the prevalence of the lactation during the first four months of life by 85%.

The incidence of sexually transmitted diseases is estimated to decrease by 30%, eliminating the congenital syphilis. For the HIV and AIDS, the prevention, diagnosis and referral for adequate attention actions will be strengthened.

Within the integral framework of the reproductive health care, the prevention, early detection and referral of women with cervical-uterine and mammary carcinoma in all the levels will be strengthened, ensuring the quality of the treatments and the follow up of the cases. The purpose is to decrease the mortality result of cervical-uterine cancer by 15%, as well as to strengthen a self-care culture of the reproductive health.

Improving the life standard in the post-reproductive stage is an essential factor that allows to increase the years of healthy life, decreasing the deleterious effects and preventing complications.

The program includes the gender perspective in all its actions, as well as norms, technical assistance, supplying of services, training, educational communication, evaluation and research actions.

The challenge for the attainment of these goals is to have qualified human resources and capacities to execute strategies and action lines. This undoubtedly demands a great effort from all those who participate in a direct and active way in the task of offering better conditions to the future generations.

The Reproductive and Family Planning Program 1995-2000 meets a national priority with realistic objectives, feasible and attainable goals, based on strategies and action lines that meet the demands of

Within the integral reproductive health framework, the program includes:

- **The prevention, early detection and referral of women with cervical-uterine and mammary carcinoma, strengthening a self-care culture of the reproductive health**
- **improve the life standard in the post-reproductive stage, essential factor that allows to increase the years of healthy life**
- **include the gender perspective in all its actions, as well as norms, technical assistance, supplying of services, training, educational communication, evaluation and research actions**

the population and the urgent need of change in the health attention and social security.

The reproductive health in the reform to the IMSS

The social security is one of the best ways to fulfill the objectives of the government social and economic policies and to meet the demands and hopes of the population. Its materialization in the Mexican Social Security Institute has been outstanding for the benefits given to the workers, their families and enterprises, as well as for the promotion of the health and welfare of the society.

The Institute has redistributed the income, as proof of social solidarity and bulwark of the equity and stability of the country. Its capacity to provide protection, certainty and social justice to the Mexicans has been proved in the course of the years, contributing in an outstanding way to the development of the nation.

The social security has the purpose of ensuring the human right to health, medical assistance, protection of the sustenance means and the social services necessary for the individual and collective welfare

The legislation in force establishes that the social security has the purpose of ensuring the human right to life, medical assistance, protection of the sustenance means and the social services necessary for the individual and collective welfare.

- Coverage

The Institute covers more than 52 percent of the Mexican Republic's population

The Institute covers more than 52 percent of the Mexican Republic's population (almost 37 millions in the compulsory regime and 11 millions in the social solidarity). At the same time the medical and economic benefits offered to more than one million 440 thousand pensioners and their families in all the country show the magnitude and strength of the Institute.

The human, material, financial and technical resources of the IMSS are result of the coordinated efforts executed during more than five decades; this effort represents the continuous interaction of 8,716 operative units (more than 1,700 of these correspond to medical units of the ordinary regime) in which 350,000 workers participate in more than 100 general processes that, in the medical area, mean more than 700,000 daily consultations to insured workers and beneficiaries (Table III.1). 1,500,000 pensions are monthly covered and around 61,000 children are received in the day care centers.

The IMSS has 8,716 operative units and 350,000 workers

TYPICAL DAY IN THE IMSS	
EVENTS	NUMBER/DAY
Medical consultation	370,000
X-ray studies	25,700
Surgeries	3,500
Hospital discharges	5,300
Births	>2,000

Table III.1 A typical day in the IMSS

- The New era of the IMSS

On 28th March 1995, the General Director of the IMSS submitted to the Federal Executive power an objective diagnosis on the critical financial period faced by the IMSS, requiring a reform that ensures its viability in the middle run based on a strategy to face the new social challenges demanded by the Mexicans, starting in this way the new era of the IMSS.

With the reality described in the diagnosis, it was possible to identify the actions that the Mexican social security needs for the fulfillment of its duty, i.e. to "ensure the human right to health, medical assistance, protection of the sustenance media and the social services necessary for the individual and collective welfare".

The new era of the IMSS demands from us to counteract the propensity for bureaucracy, the centralization of decisions, the fragmentation of processes, the inefficiency and the financial unviability. For this reason the Institute is undergoing a reorganization process in order to achieve significant improvements on the costs, efficiency, productivity and quality.

The pyramid of the traditional organic structure is inverted; in this way the maximum responsibility is placed on those who are on the base of this inverted pyramid and in contact with the population

The strategies for the change are included in a master plan in which the pyramid of the traditional organic structure is inverted. In this way the maximum responsibility is placed on those who are on the base of this inverted pyramid, i.e. those who are in contact with the population. The middle and central authorities provide the additional resources and support necessary to improve the opportuneness and quality of the services, always giving a humane treatment. Four responsibility levels are established: the service unit that managers its processes with operative decisions; the delegation level in charge of supervising and controlling with operative support decisions; the regional level that advises and evaluates with standard regulations; the programs, with tactical decisions and, finally, the central normative level responsible of the strategic planning, the observance of the policies and regulations, the evaluation and control of the administration with strategic decisions.

- The Reform

The IMSS has always searched the best ways to meet the existing demands; nowadays, the challenges emerged from the maturity process of its own model, the need to overcome the inefficiencies result of the growing demand for the efficient use of the resources as well as its determination to strengthen the social principles giving them long-term financial viability makes it essential to execute changes aimed towards improving the whole system, based on the consensus of the IMSS' community, i.e. contributors and beneficiaries. Hence, it is necessary to strengthen both, the services and the benefits and to update its response according to the reality of the country.

In view of this reality, the Tripartite Commission for the Strengthening of the Social Security issued several conclusions that, in the month of October 1995, were the basis for the worker-entrepreneur proposal "Alliance for the Strengthening and Modernization of the Social Security" that later on the Federal Executive power turned into a bill submitted to the Congress for approval.

The IMSS supported the initiative with, beneficiaries IMSS' workers, emphasizing that the reform would offer maximum benefits to the users.

The reform of the IMSS will offer maximum benefits to the users

The initiative was approved and the new Social Security Law will enter into force on 1st January 1997. This reform includes substantial modifications to the four main social security heads: in the occupational hazard insurance the fees will be structured in an equitable way including incentives for the modernization of the enterprises; the budget of the day care centers will no longer be allocated to the sickness and maternity insurance, but to increase

their coverage in compliance with the current demands of women that has fully joined the labor of the country; the sickness and maternity insurance will be more equitable and will allow the coverage of non-salaried workers through the new family health insurance and the reversion of fees, by request of the employers.

However, the most relevant aspect of the reform is concerning the disability, old age, severance and death insurance that will transform the new pension system. Independent financial agencies called AFORES will be created. These agencies will administer the retirement funds, creating in this way independent accounts for each worker.

It was decided to reorient the future actions, establishing assessable results on the needs and demands of integral reproductive health, within a framework where the health and the sickness are considered a social phenomenon, emphasizing the difference between the definitions and approaches and their place in the set of values of the reproductive health care

It is also important to mention that the reform also includes substantial modifications to the administrative and supply areas of the Institute itself. In accordance with the new era of the IMSS, as it is with the recently undertaken reform to the Institute, and considering as an starting point the social values involved in the health care to the beneficiaries, it was decided to reorient the future actions, establishing assessable results on the needs and demands of the integral reproductive health care within a framework, where the health and the sickness are considered a social phenomenon, emphasizing the difference between the definitions and the approaches and their place in the set of values of the reproductive health care.

In this way the IMSS reaffirms its responsibility with a realistic attitude respectful of its social mission, assuming the challenges to be faced on the threshold of the next century.

- The challenge

Based on all these considerations and on the fact that the Mexican Social Security Institute meets around 50 per cent the national and international commitments in the field of health, it is easy to understand the challenge that the execution of these strategies would mean. These strategies are not only aimed towards achieving certain goals, but towards ensuring the population the right to a better reproductive health care.

The Mexican family has been and will continue being source of pride, social cohesion factor and natural environment for the creation of a solidary conscience

This challenge undoubtedly involves the participation and commitment of those keen on the health and welfare of Mexicans.

This also involves a capital commitment to guarantee more healthy generations for a more fair country, based on the fact that the Mexican family has been and will continue being source of pride, social cohesion factor and natural environment for the creation of a solidary conscience.

The Reproductive Health and Maternal Infantile Coordination

The *"Dirección de Prestaciones Médicas"* is one of the most outstanding wings in the organic structure of the Institute. Its main duty is to establish procedures that guarantee a timely and kind preventive medical care, within a context of health promotion and education for the community, establishing preventive and community health plans and programs, in favor of the bio-psycho-social balance of the beneficiaries. The Reproductive Health and Maternal Infantile Coordination is part of this direction. This section is responsible of meeting the national and international commitments in the field of reproductive health care, as well as of the family planning, maternal, perinatal

Timely preventive medical attention within a context of health promotion and education for the community

The actions of the Reproductive Health and Maternal Infantile Coordination have a direct impact on the future of Mexico

and child health programs based on specific population guidelines and policies. For this purpose, it establishes norms, procedures and strategies, supervises their observance, evaluates their impact and supports the tactical and operative levels. The actions of the Reproductive Health and Maternal Infantile Coordination have a direct impact on the future of Mexico, as it can be appreciated in the typical day of the Institute (Table III.2)

TYPICAL DAY IN THE REPRODUCTIVE HEALTH AND MATERNAL INFANTILE COORDINATION

EDUCATIONAL ACTIVITIES		
ACTIVITIES	NUMBER	
Interviews	14,559	
Group sessions	1,389	
NEW ACCEPTORS		
METHOD	URBAN	RURAL
Hormonal	802	1,059
IUD	2,474	482
BTO	657	110
Vasectomy	89	1
TOTAL	4,022	1,652

MATERNAL CHILD HEALTH CARE	
EVENT	NUMBER
Antenatal surveillance	18,976
Puerperal surveillance	1,235
GND* surveillance of the children younger than one	12,498
GND* surveillance of the children between 1 and 4	7,856
Children born alive	1,892

*GND= Growth, Nutrition, Development

Table III.2 The achievements in a typical day of the IMSS in reproductive health

The reform of the IMSS in the reproductive health field involves a double commitment: first, ensure to the population the highest quality in the services and alternatives, as part of a demographic, epidemiological and institutional process and second, to support the attainment of the government goals in order to guarantee the social development demanded by the Mexican people.

In case the reader wants to study the concepts included in this chapter in detail, he (she) may like to revise the following publications:

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CHAPTER IV

STRATEGIC AND EPIDEMIOLOGICAL PLANNING IN THE INTEGRAL REPRODUCTIVE HEALTH CARE APPROACH

General Considerations

In order to face the challenges of the integral reproductive health care approach, it was decided to implement the Strategic and Epidemiological Planning methodology with the consequent process reengineering and an administration control in accordance with the methodology

In order to face the challenges of the integral reproductive health approach, it was decided to implement the Strategic and Epidemiological Planning methodology

The Strategic and Epidemiological Planning emerged as a useful instrument to give congruence to the decisions to be taken in order to meet the welfare needs of the general population, through the systematization of several steps as part of a cyclic process. The purpose of this process is that each level should take its own decisions in such a way that the expected changes are made in accordance with the available resources and considering in every moment the needs and demands of the beneficiaries based on the social values of the Mexican families.

The Strategic and Epidemiological Planning involves the systematization of several steps part of a cyclic process. The purpose of this process is that each level should take its own decisions with the required oportuneness

The integral scheme of the methodological process is not a new discipline, although its systematized applicability is innovative. The method includes the application of different research techniques and analytical systems based on the behavior of the reproductive health patterns, enabling us to make substantial changes in the way to approach the problems and to propose alternatives, as well as in the way the solution strategies for the beneficiaries are conceptualized or approached. The process requires to orient and train the personnel in their different complexity levels, with the purpose of changing the attitude of the whole health staff of the IMSS.

The process requires to orient and train the personnel in their different complexity levels with the purpose of changing the attitude of the health staff

The method is based on the following premise: a resource is efficiently used when the benefit obtained is bigger than the one obtained if the same resource

had been allocated to any other purpose. It endeavors to relate the benefit of the resource allocated to save lives or to reduce the morbidity. The ultimate purpose is to find the combination of resources that has the greater possible impact on the health of the population.

The purpose is to find the combination of resources that has the greater possible impact on the health of the population

This process is constituted of the following stages: identification of the problem (diagnosis of the current situation); analysis of the system, program, instrument and prospective methods (establishing of trend scenarios); consideration of alternatives and strategies; operation of the program (action plan) and evaluation.

The methodology is flexible and dynamic, allowing to reorient the action plans in accordance with the results and be evaluated as frequent as required, according to the case and in an independent way. It considers the multidisciplinary team work an essential element in each decision level, with the purpose of establishing group commitments of mutual consent, without leaving aside the participation of the beneficiary in the corresponding level of decision.

The methodology considers the multidisciplinary team work an essential element in each decision level

In order to execute this methodological process, the Strategic and Epidemiological Planning is an essential instrument to deliver reproductive health care in its integral approach.

The objectives of the Strategic and Epidemiological Planning in the reproductive health care are as follows:

- Design and develop a team work methodology in accordance with the particular needs and conditions of each region, delegation or operative unit, so that the reproductive health care projects

and programs improve the quality of the services offered to the IMSS' beneficiaries

- Include in a single methodological scheme all the actions, projects and programs of this Coordination, considering each level of decision (starting from the lower level) of those who have this responsibility.

- Ensure to the beneficiaries the adequate referral of their reproductive health care demands, increasing their life expectancy, meeting their previously analyzed demands improving, in this way, their life standard.

Ensure to the beneficiaries the adequate referral of their reproductive health care demands

The Strategic and Epidemiological Planning is the method that allows to:

- know the present and future of the reproductive health care actions
- predict and foresee future events (predictive analysis)
- create situations that otherwise would not have been possible
- establish the objectives and define the strategies for the solution of the reproductive health care problems

A modern organization is made up by resources and participants interacting in a synchronized way in different processes. Participants include all the people involved in the process, i.e. the community, the service suppliers and all resources: human, financial, technological, material and computer, as it is shown in figure IV.1

A modern organization is constituted of resources and participants that interact in a synchronized way in the different processes

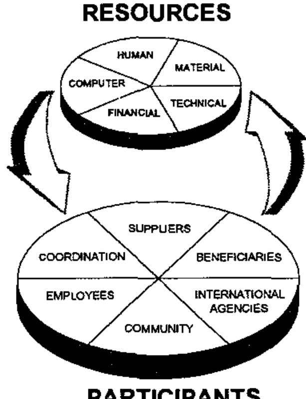

Figure IV.1 The resources and participants involved in a modern organization, as the one of the Reproductive and Maternal and Child Health Care Coordination of the IMSS

The principles of the Strategic and Epidemiological Planning are now related to the Reproductive and Maternal and Child Health Care Coordination (the Coordination) based on the concept where the service unit is an independent body, which unifies in a conceptual an integral way the resources and the participants, based on five characteristics that make it unique, as it is shown in figure IV.2.

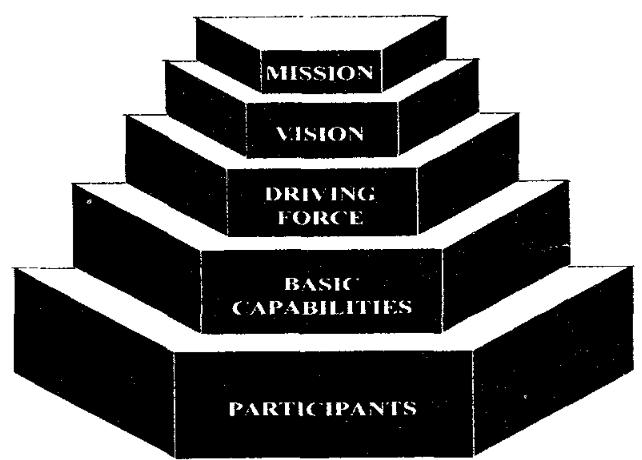

Figure IV.2 The service unit

It is important to point out what this definition does not consider in the hierarchic place, such as a department or a division. According to this definition, the service unit characterizes and defines the Coordination itself.

The service unit characterizes and defines the coordination itself

The Coordination, organized as a service unit and in accordance with its pyramid of characteristics, produces value in an effective way while arranging the resources and the participants.

The Coordination as a Unity of Reproductive Health Care Services

Mission

Is the concept that describes the main activity of the Coordination, i.e. gives the reason for the existence of the organization and constitutes the permanent horizon towards which all the efforts of the available human, financial, material and technical resources must be aimed.

The mission is a conceptual setting out that describes the usefulness of the Coordination, based on the objectives and challenges to be met.

The Mission is a conceptual setting out that describes the usefulness of the Coordination, based on the objectives and challenges to be met

Setting the mission out means having an unspecified guideline that invites the personnel of the area and the rest of the participants to believe in the value of the Coordination, as an organizational cohesion unity.

It is necessary to understand the importance of the adequate comprehension of the coordination's mission, because not only its success but its existence depends on it.

Besides these structural elements that constitute the Coordination, there are other integrity concepts of the reproductive health care, which are part of its mission.

"TIMELY MEET THE REPRODUCTIVE HEALTH CARE NEEDS AND DEMANDS OF THE BENEFICIARIES OF THE IMSS, OFFERING THE REQUIRED SERVICES WITH THE HIGHEST QUALITY, KINDNESS AND EFFICIENCY"

Vision

The vision should be understood as the general guidelines that the Coordination will follow during the next years

The vision concept describes the activities and the orientation all the resources must have, with a long-term approach (6 to 12 years), i.e. the activities of the Coordination during the next years but always observing the established mission. This concept should be understood as the general guidelines the Coordination will follow in the next years (prospective).

The defined vision for the next six years has been included in the implementation of the general strategic long-term plan (trend scenarios) and in the general short-term operation plan.

The following elements were considered for the establishment of the vision: the orientation of the activity for the next twelve years, the action framework established in the mission, the definition of service offered, the generic needs of the beneficiary and the population, as well as the technological, active and knowledge resources.

In brief, the vision, concerning the Coordination:

- determines its existence

- defines its field of action and operation
- the difference of others in the same field

The vision explains why the participants must work making a common effort and is defined considering the demands and needs of beneficiaries, and not the characteristics of the service, promoting the creativity in the strategic options, contributing in this way to an enhanced growth of the Institution.

The vision explains why the participants must work, making a common effort and is defined considering the demands and needs of the beneficiaries

Once the interrelation of the vision with the mission and its environment is understood, the Coordination, in its prospective scenario, endeavors to:

"BE RECOGNIZED BY THE QUALITY OF THE SERVICE AND THE TIMELY ATTENTION IN THE REPRODUCTIVE HEALTH CARE OF FAMILIES BY ALL IMSS BENEFICIARIES"

Driving force

All the organizations have a certain number of capacities developed during the course of time, for example: the knowledge of the population about services uses, or knowledge of the reproductive health care products and services, maybe the technical and scientific capacity for the health attention of the beneficiary or possibly the health attention capacity or national coverage of the insured population, among others. However, each service unit has an outstanding capability which makes it worthy in favor of the participants; this capability is called driving force.

The service unit has an outstanding capability that makes it worthy in favor of the participants

The driving force of the coordination was defined as:

"HIGH SOCIAL, SCIENTIFIC, TECHNOLOGICAL AND ORGANIZATION LEVEL IN THE DELIVER OF HEALTH CARE TOWARDS A STRATEGIC POPULATION FOR THE COUNTRY"

Basic capabilities

The basic capabilities must be considered an extension of the driving force of the service unit

The fourth characteristic of the service unit are the basic capabilities, closely related to the corporation technological level and to the supply of services, that must be considered an extension of the driving force of the service unit.

The identification of the basic capabilities of the Coordination was made up using three criteria:

i. Give access to a wide variety of beneficiaries

ii. Make significant contributions to the service which benefit consumers and beneficiaries

iii. Become an efficient agency through technology, organization and experience

The basic capabilities of the coordination are:

- the mystic of the work
- the conscience we should have in our efforts, knowledge and zeal, committed in every moment to a mission

The team work with a congruent and fair leadership

- to obtain an added value, strengthening daily our concept that working in this Coordination and for our beneficiaries is really important
- the content of the social participation required for the impact of actions

Participants

The fifth characteristic of the service unit are participants.

The participants are people or groups of people interested in the success of the service unit. Some of them are essential, and others are marginal.

The participants are the people or groups of people interested in the success of the service unit

The importance of the participants varies according to the driving force of the service unit.

Philosophy

Is the system of believes, values and principles part of the life style of the coordination and its thought. It includes the equity judgments in the execution of the assigned responsibilities, summarized as follows:

- Always work with honesty, responsibility, respect and an earnest loyalty spirit

Always work with honesty, responsibility, respect, and an earnest loyalty spirit

- think and act with the highest probity towards the institution and its beneficiaries

- responsibility, knowing that actions have a direct impact on the welfare of the population, and many times constitute the difference between life, sickness or death

Always act respecting the life and the service vocation in favor of the humankind and of all those who participate in the attention process of the reproductive health

- respect to life and to the service vocation in favor of the humankind and of all those who participate in the attention process of the reproductive health care

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CHAPTER V

IMPLEMENTATION OF THE REPRODUCTIVE HEALTH CARE ACTIONS FOR THE PERIOD 1995-2000 IN THE IMSS

Situation framework

The essential elements and adequate strategies to develop a reproductive health care system depend on the analysis of the systems to be applied, in order to define the knowledge of attitudes and expectations (needs and demands) of the population and to determine the behavior of the risks and damages of the reproductive health care. This analysis will constitute the basis to create the proposal based on a pertinent diagnosis led by problems that define the characteristics of the duties and make the determination of the necessary inputs easier. It is also important to establish the requirements of resources in order to define the system within the prevailing financial, demographic and professional restrictions.

In compliance with the new era of the IMSS, it was decided to lay the foundations for the strategies, plans, program and action lines in reproductive health

In compliance with the new era of the IMSS, it was decided to base strategies, programs and action lines on the needs and demands of the beneficiaries.

It was also determined, in an objective and realistic way, the situation of the coordination programs in order to meet the challenges to be faced and to have a basis to evaluate the achievements of the current administration.

The National Family Planning Program has always had the purpose of contributing to decrease the Mexican fertility rate

In the Family Planning Program

The family planning activities of the Mexican Social Security Institute have had a satisfactory evolution both, for the coverage and for the quality of the services. The main virtue has been the avant-garde approach in the operation of the family planning programs. Right from its beginning, in 1973, it has had the purpose of contributing to decrease the Mexican fertility rate. This approach was further encouraged after the implementation of the National

The integral health approach was incorporated into the demographic purpose since 1983, based on the prescription of the contraceptive methods evaluating the reproductive health care risk factors

Family Planning Program in 1977. The integral health approach was incorporated into the demographic purpose since 1993, based on the prescription of the contraceptive methods evaluating the reproductive health care risk factors.

This modality, apart from the operative post-delivery, post-abortion and the trans-caesarian contraceptive strategies, as well as to the surgical units and evening services, were the basis for the IMSS program towards a high-coverage transition.

The developments on the program have traditionally been witnessed by the information on the new acceptants and the active users through the registration system. However, the alternative information sources such as the national socio-demographic surveys have suggested an overestimation in the number of users of all the responsible institutions, constituting an inconsistency in the registration systems of the sector in general.

The effect accumulated during more than 20 years of registration of actions has probably taken to a considerable overestimation in the number of active users

The effect accumulated during more than 20 years of registration of actions, has probably taken to a considerable overestimation in the number of active users, that does not tally the estimated demographic impact of the country.

In view of all this and with the purpose of evaluating the developments of the Family Planning Program of the IMSS a diagnosis was made in this respect in order to lay the foundations for the projection of users by the year 2000.

It is important to mention that the conceptual and methodological comparability among the surveys was one of the main technical aspects observed for the analysis.

A first estimate was obtained applying the use of the contraceptive methods of the IMSS in the urban areas by women in procreating age; the second series of estimates was done through the scheme of the next fertility determinants with the purpose of harmonizing the global fertility rate and the contraceptive prevalence, the post-delivery period not liable to pregnancies due to lactation and the incidence of induced abortion; and third estimate was made through the analysis of trends registered in the number of acceptants and the continuity with which methods are used in the IMSS, with the purpose of reconstructing the users through all these elements.

The reports of the inquiries were consulted as well as the following computer files: the Mexican fertility survey of 1976 (EMF), the national prevalence survey of 1979 (ENP), the national demographic survey of 1982 (END), the national survey on fertility and health of 1987 (ENFS), the national survey of the demographic dynamic of 1992 (ENADID) and the national maternal and child health survey of 1994 (ENSMI); the Single Information System, subsystem 10 and 17 were consulted for the analysis of the population registered in he family medicine unit and for the estimation of the women's fertility rate of the IMSS. The population projections jointly made by the IMSS and the Mexican Research Academy on Medical Demography were used for the analysis of the urban and rural women in procreation age and, finally, the historic series of acceptants from 1972 to 1994 were used for the analysis and estimate of the active users through the register.

Due to the fact programs have had a different development according to the place of residence of the population and that the IMSS operates both, in

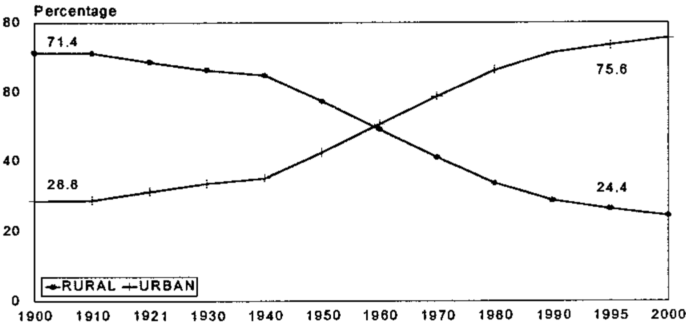
The IMSS operates both, in the rural and in the urban areas; hence, programs have

had a different development according to the place of residence of the population

rural and in urban areas, it is important to know some elements which characterize the potential demand of the family planning services.

Mexico has become an urban country; in 1990 71.4% of the population lived in rural areas

As a result of immigration movements from the countryside to the city, Mexico has become an urban country. In 1990, 71.4% of the population lived in rural areas, nowadays this percentage has declined to 2.4%, as it can be seen in figure V.1



Source: CONAPO, 1988; INEGI, 1992 and own calculations.

Figure V.1 Proportion of rural and urban population. Mexico 1900-2000

By the year 2000, three of every four Mexicans will live in urban areas

The trends in the urbanization process suggest, by the year 2000, three of every four Mexicans will live in urban areas. In absolute numbers it is foreseen that out of the 100 million inhabitants estimated for this year, 75.6 million will live in urban areas, and only 24.4 in rural areas (Table V.1)

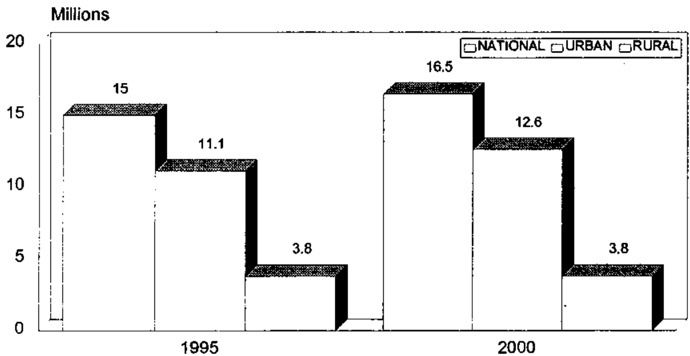
Population	1995	2000
Rural	24.2	24.3
Women in procreation age	5.8	5.8
Urban	67.4	75.6
Women in procreation age	19.4	22.0
National	91.6	99.9
Women in procreation age	25.1	27.8

Table V.1 Estimate of rural and urban population in Mexico in 1995 and 2000

This immigration effect not only involves the aspect of physical transformation of the environment, but also whose changes in the social behavior of the families.

In the case of women in procreation age, whose constitute the basis of the family planning programs, it was estimated, by the year 2000, there will be 22 million women in the urban areas and 5.8 million women in the rural areas. Likewise, the number of women in procreation age, currently estimated in 15 million, will increase to 16.5 millions by the end of the century, out of which 12.6 will live in urban areas and 3.8 in the rural areas (Figure V.2)

The women in procreation age constitute the basis of the family planning programs; it is estimated, by the year 2000, there will be 22 million women in the urban areas and 5.8 millions in the rural areas



Source: Estimates based on the table V.1 and ENADID.

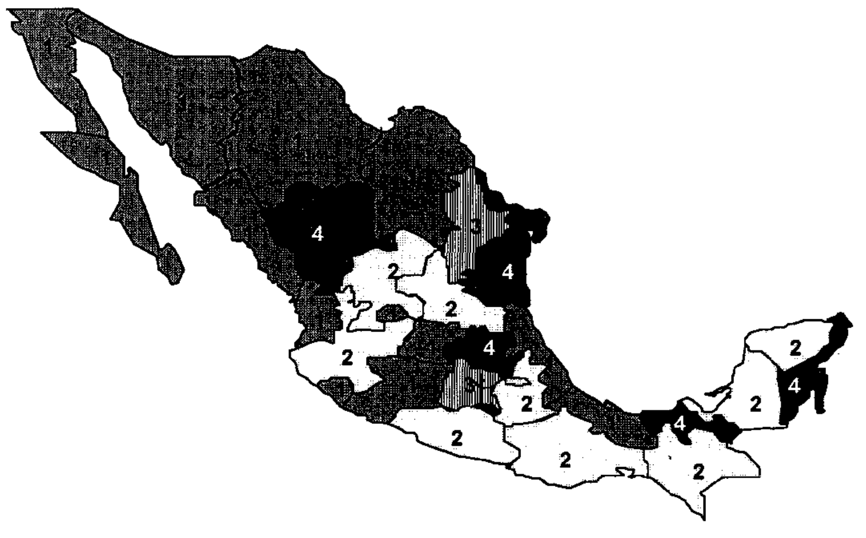
Figure V.2 Women in procreation age. Mexico 1995 and 2000

In 1995, estimations in rural area, report a global fertility rate of about 3.9 children per women, and of 2.5 children per women in the urban area. These trends suppose, by the year 2000, the global rate of the rural area will decline to 3.6 children - the level reached in the urban areas in 1985-. In the urban areas, the fertility is expected to decrease to 2.3 children per women.

In 1995, it was estimated that the global fertility rate was of 3.9 children per women in the rural area and of 2.5 children per women in the urban areas

The behavior observed in 1994 in the prescription of adequate contraceptive methods, the promotion of a decrease in the ideal size of the family and the increase in the contraceptive coverage in seasonal populations, are elements that will support the decrease in the fertility rate of the beneficiaries of the IMSS to a replacement level of 2.15 children per women by the year 2000.

In order to have a better idea of the curb on the decrease of the fertility rate in the population of the IMSS, an analysis by delegation (states) was made in 1992, comparing the urban fertility rate of each state. The comparative analysis suggest four different patterns, clearly shown in figure V.3 and described next:



PATTERNS OF THE FERTILITY LEVELS

PATTERN 1	HIGHER THAN THE URBAN AVERAGE OF EACH
PATTERN 2	LOWER THAN THE URBAN AVERAGE OF EACH
PATTERN 3	LOW AND NEXT TO BE
PATTERN 4	SIMILAR TO THE URBAN AVERAGE OF EACH

Figure V.3 Fertility patterns in the IMSS

- The first pattern includes the delegations of the following states: Aguascalientes, Baja California Norte, Baja California Sur, Coahuila, Colima, Chihuahua, Guanajuato, Michoacan, Nayarit, Sinaloa, Sonora, Veracruz (North and South) showing fertility rate levels higher than urban average in each state. The characteristics of most of the population attended by the IMSS in these delegations, hinders their incorporation into the family planning services because most of them belong to the seasonal field population that comes from the states of the south of the Republic, such as Chiapas, Guerrero and Oaxaca, among others. Hence, the challenge to be met by the family planning program is to establish strategies where social values are included and the participation of the community in immediate actions.

The pattern No. 1 presents fertility levels higher than the urban average of each state; the challenge to be met by the family planning program is to establish strategies where social values are included and the participation of the community in immediate actions

- The second fertility pattern includes the IMSS delegations of Campeche, Chiapas, Guerrero, Jalisco, Oaxaca, Puebla, San Luis Potosi, Tlaxcala, Yucatan and Zacatecas, with a fertility rate lower than the urban state average. The differences between both rates is considerable. This means that, in these states, there has been a strong impact on the fertility rate of the population. Even if in most of them there is a low proportion of insured population, it is important to extend the family planning actions of the IMSS to the general population in these delegations, in order to contribute to purpose reduction of the fertility rate in these states.

The fertility rate in pattern No. 2 is lower than the urban state average; the challenge is to extend the family planning actions to the general population

- The third pattern includes, on one hand, the delegations that in 1992 had already presented low fertility levels, next to be replaced, such as the State of Mexico, Nuevo Leon and Mexico City in which the high contraceptive coverage that has

The pattern No. 3 presents low fertility levels, next to be replaced; the challenge is to keep the high contraceptive coverage registered

until now, in order to guarantee its demographic impact

been registered until now must be kept, in order to guarantee its demographic impact.

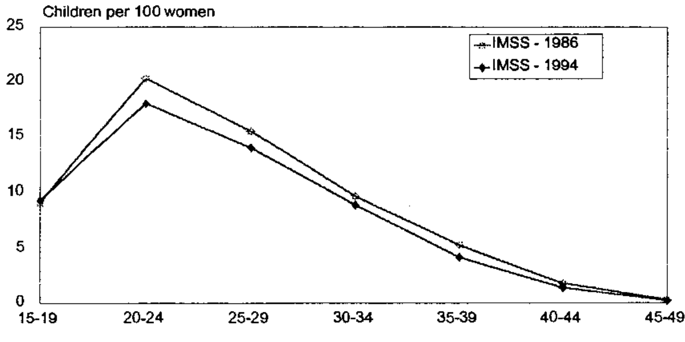
The pattern No. 4 presents fertility levels similar to the urban state pattern; the challenge is to strengthen the family planning activities through alternative strategies aimed towards both, the beneficiaries and the general population, always considering the customs of the population

- The last pattern is made up by the delegations of Durango, Hidalgo, Morelos, Queretaro, Quintana Roo, Tabasco and Tamaulipas where, in 1992, had fertility levels similar to the urban state average. This shows, at least in term of demographic impact, there is an homogenous situation concerning the family planning actions. In these delegations it would be wise to strengthen the family planning activities through alternatives aimed towards both, the beneficiaries and the general population, always considering the values and customs of the population.

The fertility of IMSS population has shown a IMSS decrease in the fertility level in all ages, except for the group of the adolescents

In connection to the decrease in the global fertility level of insured population of the IMSS, there has been a decrease in the fertility rate in all ages, except for the group of adolescents that, between 1986 and 1994, had almost the same rate, i.e. nine births for every 100 women of these ages.

One special characteristic of the fertility rate by age of the population, is that, since 1986, it has shown a predominant early fertility with high fertility rates in the first age groups (Figure V.4). This shows us the importance of strengthening the education and counseling actions aimed towards adolescents, ensuring an informed supply of contraceptive methods, establishing strategies to involve youngsters into the health programs and emphasizing the importance of a healthy reproductive life, not only in order to decrease the fertility level, but as an essential element in the configuration of more healthy families and communities, with equity and generation justice.



Source: SUI of the IMSS.

Figure V.4 Specific fertility rates by age in the IMSS, ordinary regime 1986 and 1994

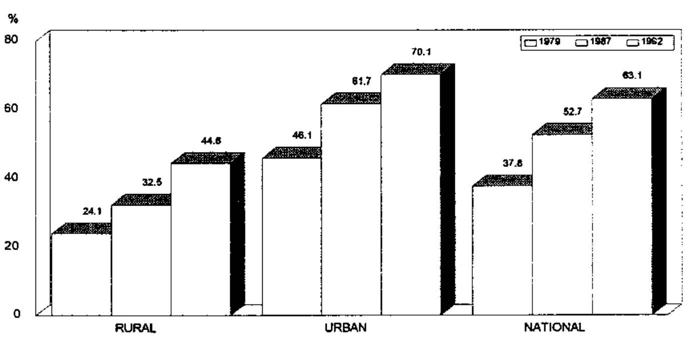
The analytical frameworks of the fertility determinants suggest that, in our country, the use of contraceptive methods by their prevalence and effectiveness has been an essential factor in the reduction of the fertility rate.

At national level, the socio-demographic surveys have shown that the contraceptive practice of women in procreation age, jumped from 37.8% in 1979 to 52.7% in 1986 and to 63.1% in 1992. This trend confirms the survey made in 1944, where a higher contraceptive coverage was estimated. The increase in the contraceptive coverage has been different in the fields analyzed: while urban areas have achieved a 70% coverage, the coverage of rural areas is lower than 50% (Figure V.5)

The increase in the contraceptive coverage has been different in the fields analyzed: while urban areas have achieved a 70% coverage, the coverage of rural areas is lower than 50%

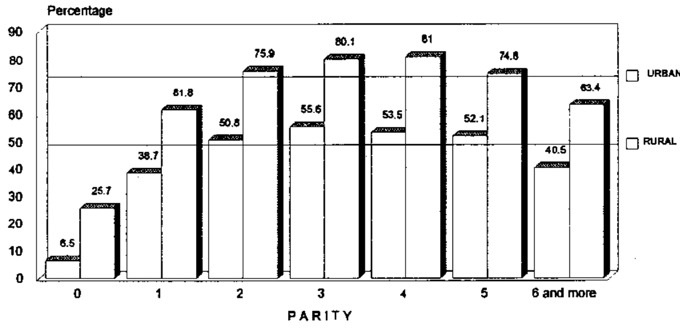
A way to analyze the effect of the contraceptive practice on the fertility rate is through better coverage according to the number of children born alive. Figure V.6 clearly shows in the urban areas, according to 1992 data, the higher prevalence of the contraception was of two or more, with 80% figures or at least very close to this percentage, even if the same parity groups also show the highest levels in

the use of contraceptive methods, of a bit more than 50%.



Source: ENP, ENFES and ENADID.

Figure V.5 Proportion of united women that use contraceptive methods 1979, 1987 and 1992



Source: ENADID.

Figure V.6 Use of contraceptive methods according to parity, rural and urban, 1992

The Mexican women, even those who live in urban areas, do not postpone the arrival of their first child; only

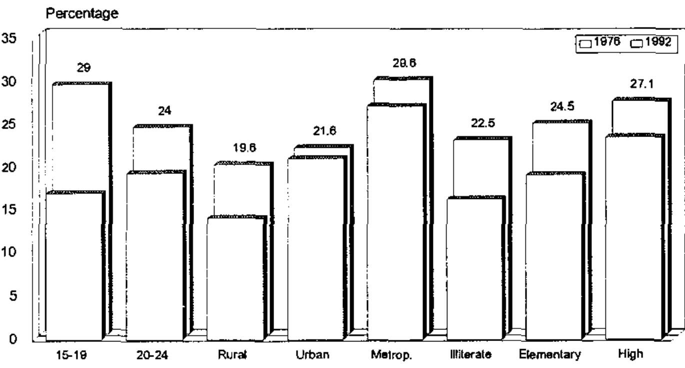
An important aspect in the analysis of the contraceptive coverage by parity is a fact where Mexican women, including those living in urban areas, do not postpone the arrival of their first child. Only 25.7% of women, use contraceptive methods before their first pregnancy, compared to a 6.5% in the rural areas, where women normally do not take long to procreate their second child. Only 38.7% of

the rural women with one child use contraceptive methods.

25.7% of those who had never had children use contraceptive methods

It has been found that the protogenesic period, i.e. the period between the commencement of the marital life and the arrival of the first child, is extremely short in our population. This states us a conclusion where a considerable proportion of the first births are due to premarital conceptions, very often, to unwanted and unplanned pregnancies too. (Figure V.7)

A considerable proportion of the first births are result of premarital conceptions that, very often, are due to unwanted and unplanned pregnancies



Source: EMF y ENADID

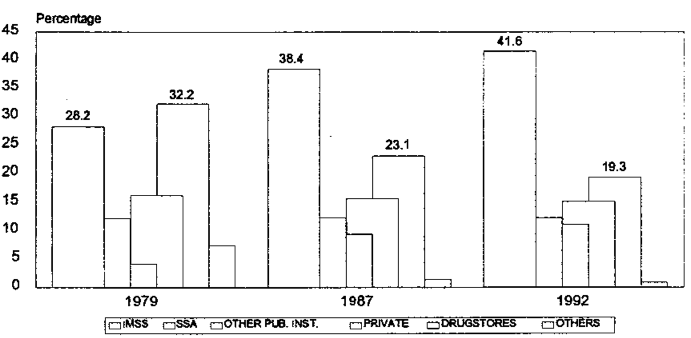
Figure V.7 Premarital conceptions in Mexico 1976-1992

The surveys show the predominance drugstore had as supplier of contraceptive methods in 1979 in the urban areas, this situation changed during the second half of the 80's by the IMSS. In this way, the IMSS has become the main actor in the coverage of the family planning services, with 28.2% in 1979, 38.4% in 1986 and 41.6% in 1992. On the other hand, the rest of public health institutions keep a small coverage, even with certain stability such as in the case of services delivered by the Ministry of Health with a level of 12%, similar to the percentage registered for the private doctors and institutions. The role of the drugstores as suppliers of contraceptive methods has shown an important

The IMSS has become the main actor in the coverage of the family planning services. with 28.2% in 1979, 38.4% in 1986 and 41.6% in 1992

The role of the drugstore as supplier of contraceptive methods showed an important decrease from 32.3% in 1979, to 23.1% in 1987 and to 19.3% in 1992

decrease from 32.3% in 1979 to 23.1% is 1987 and to 19.3% in 1992, as it can be seen in figure V.8



Source: ENP, ENFES and ENADID.

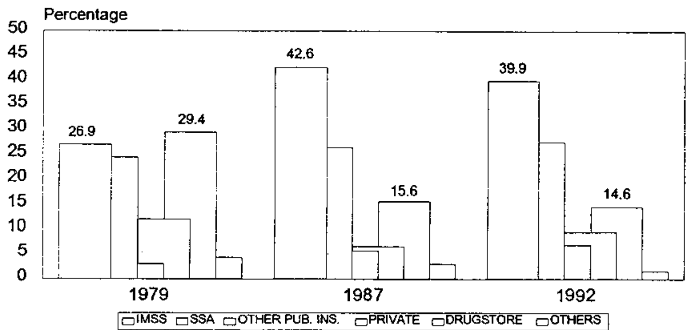
Figure V.8 Place of supply of contraceptive methods, urban area 1979.1992

A similar pattern is observed in the rural area, figure V.9. The IMSS covers two of every five users approximately; however, a considerable decrease on the supply was registered between 1986 and 1992, due to the effect of the changes made to the structure and coverage of the IMSS-Solidarity regime in the national territory.

A bit more than one of every four contraceptive users in the rural areas is covered by the health centers of the Ministry of Health, located in each municipality

The family planning services delivered by the Ministry of Health holds a higher percentage than in the urban areas, and suggests a small increase in its relative participation, a bit more than one of every four contraceptive users in the rural areas is covered by the health centers located in each municipality.

Just as in the urban areas, the participation of the drugstore as supplier of contraceptives has been practically reduced by half in the rural areas between 1979 and 1992, going from 29.4% to 14.6%



Source: ENP, ENFES and ENADID.

Figure V.9 Place of supply of contraceptive methods, rural areas 1979.1992

A IMSS Family Planning Program main characteristic is based to an offer of a safe contraceptive methods of high continuity and efficiency; the percentages of these methods can be appreciated in figure V.10

A characteristic of the Family Planning Program of the IMSS is the offer of a safe contraceptive methods of high continuity and efficiency

From the total number of users in the urban area in 1979, 46% chose definitive methods and 28% the IUD (intrauterine contraceptive device), while in 1992, 65% chose surgical method and 29% IUD.

In brief, trends in the supply of contraceptive methods by the IMSS both, in the rural and urban areas, are characterized by an increase in the surgical methods, a considerable decrease in the use of the IUD, mainly during the last years, and a lower use of the hormones, even if, especially in the rural areas, these methods have reverted the trend observed until 1987 and they have gained relative importance according to 1992 survey.

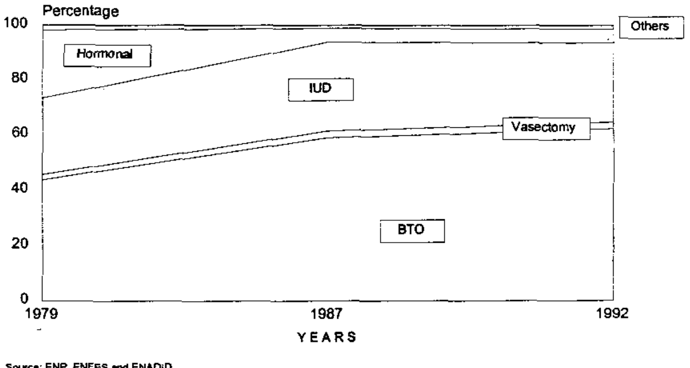


Figure V.10 Percentage distribution of female users by contraceptive method in the IMSS, 1979, 1987 and 1992

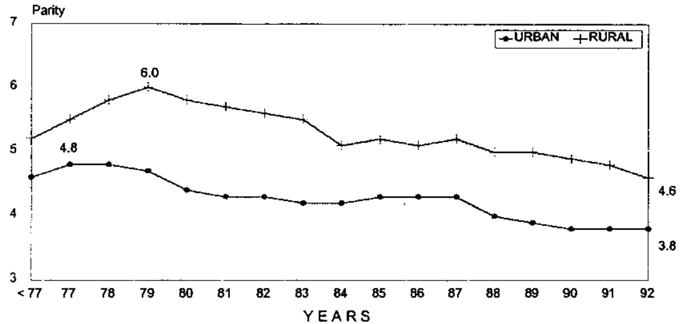
Due to the way the Family Planning Program of the IMSS supplies specific contraceptive methods, it was especially interesting in this diagnosis to evaluate the impact of the surgical sterilization (Bilateral tube occlusion - BTO).

With the purpose of isolating the accumulated effect of high parities in the BTO acceptants in the past, a retrospective analysis was done according to the adoption period of this contraceptive method.

Both, in rural and in urban areas, the BTO acceptants in the IMSS decide to use this method with less and less parity

Figure V.11 clearly shows how the BTO acceptants in the IMSS choose this method with less and less parity both, in the rural and in the urban areas; its impact on the fertility is translated into a slope of 1.4 children per women in rural areas and one child in urban areas.

If the parities of the BTO acceptants are compared in two acceptance stages, one between 1977 and 1981 and one between 1989 and 1992 according to different women's cohorts, significant statistical differences can be observed with a tendency towards a lower fertility in the most recent adoption period, as it can be seen in figure V.2



Source: ENADID.

Figure V.11 Parity of the BTO acceptants according to the year of adoption, IMSS 1972-1992

	Urban		*Rural*	
Women's cohorts	***77-81***	***89-92***	***77-81***	***89-92***
20-24	3.5	3.0	3.6	3.2
25-29	4.3	3.4	5.0	3.9
30-34	4.7	3.9	6.4	5.4
35-49	5.8	4.6	7.4	6.9

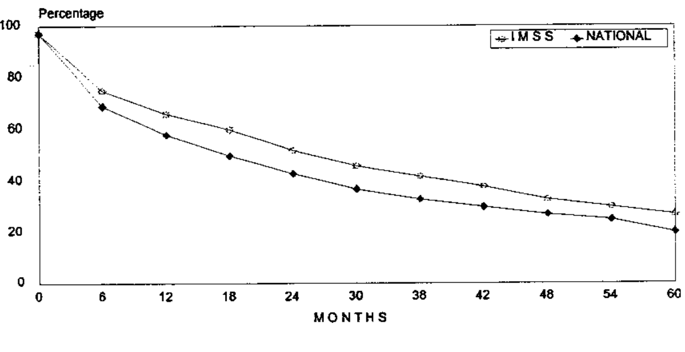
Table V.2 Effect of the BTO in the parity by cohorts and adoption period, IMSS 1977-1981 and 1989-1992

The continuity rates of the methods are an essential element to calculate active users in the cohorts of acceptants of the registration system. This behavior must be periodically revised and updated so that it actually reflects the modality of the contraceptive methodology in force. For this reason, an analysis was made through a life table of multiple decrease.

The continuity rates of the first method show the proportion of women that continue using the adopted method

The continuity rates of the first method, i.e. the proportion of women that continue using the method adopted between 1986 and 1992 suggest in the

IMSS both, in the urban and rural areas, the continuity with which the contraception is used is higher than the national average, clearly shown in figure V.12. This difference is due to a larger variety of contraceptive methods of higher continuity offered in the IMSS program.



Source: ENADID.

Figure V.12 Continuity of the first comparative method National /IMSS, 1987-1992

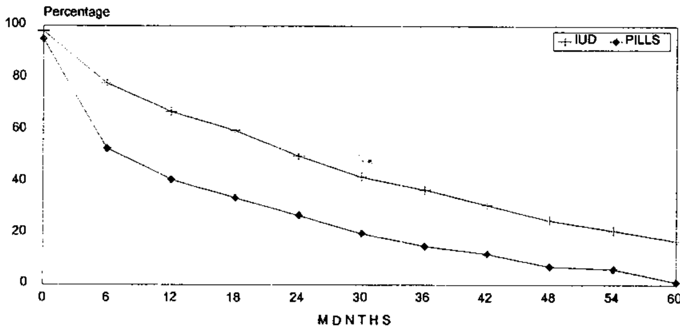
The family planning program of the IMSS offers a larger variety of contraceptive methods of higher continuity

By specific method continuity in the IMSS program is different, as it can be appreciated in figure V.13. The intrauterine contraceptive devices adopted as first method between 1987 and 1992 present higher continuity rates than oral pills. For example, after one year, the IUD continues being used in 67%, the oral pills in 41% and after two years, the continuity of the IUD doubles the use of the oral pills.

The IUD and the oral pills are used by the population in a more conscious way, with the purpose of postponing the enlargement of the family

The analysis also revealed how, regardless of the adopted contraceptive method, either IUD or oral pills, the continuity rates of the first method decreased between 1974 and 1992. This fact could be due to the larger variety of contraceptive methods available for women, but also because the IUD and oral pills are used by the population in a more conscious way to postpone the arrival of the second child. This same reason also explains the basis for the

differences in the continuity according to the age of women, because there is a positive association between this statement and the continuity of the first contraceptive method adopted during a certain period.

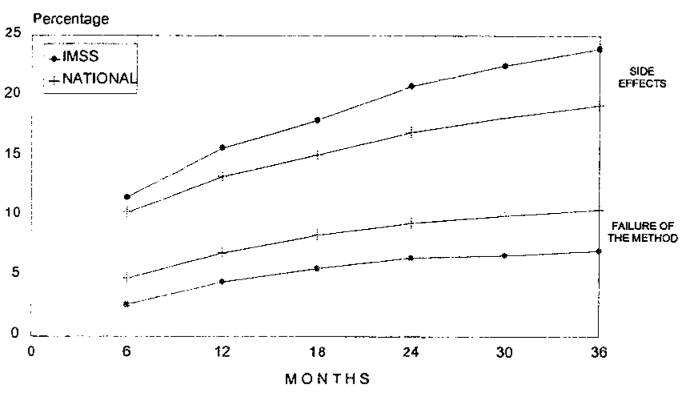


Source: ENADID.

Figure V.13 Continuity of the first method in the IMSS, acceptation period 1987-1992

In order to improve the quality of the family planning services, it is necessary to know the reasons women have to abandon the use of the contraceptive methods

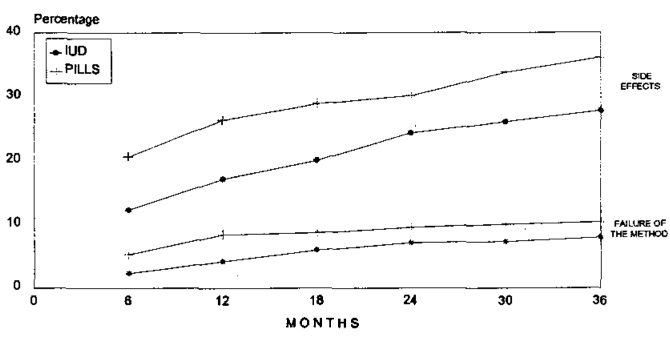
In order to improve the quality of the family planning services it is necessary to know the reasons women have to abandon the use of the contraceptive methods



Source: ENADID.

Figure V.14 Reasons to abandon the first method, National/ IMSS, 1987-1992

In this sense, it is essential to consider that the goal of using a determined method would be attained if women abandoned the contraceptive practice the moment they decided to have a child, and not for other reasons. However, there is a high prevalence in the abandonment of the first method for side-effects and for the lack of the contraceptive method both, in the program of the IMSS and at national level. It is important to illustrate why the contraceptive method is normally abandoned due to side-effects, as it can be seen in figure V.15. This circumstance should be taken into consideration in the prescription of contraceptive methods, as well as in the counseling actions of the programs, especially in the Mexican Social Security Institute where 16% and 21% abandon the first method due to these reasons, after one or two years, respectively.



Source: ENADID.

Figure V.15 Reasons to abandon the first method, IMSS 1987-1992

The main reason to abandon the method are the side-effects

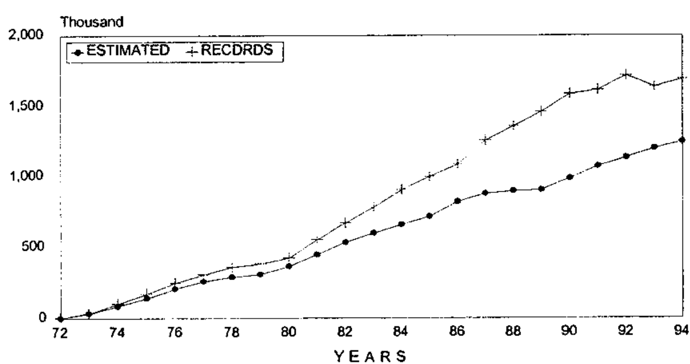
The main reason of women insured by the IMSS to abandon both, the IUD and the pills are the side-effects. 26% of pill users and 17% of IUD users abandon these methods after one year for these reasons.

It is clear in the IMSS, the abandonment rates of the oral pills are higher than the IUD rates, regardless of the reason (either side-effects or lack of the method). Approximately 8% and 10% of users of hormones abandon the method for failure after one year and two years, respectively, according to the information provided by the ENADID in 1992.

Approximately 8% and 10% of the hormones users abandon the method for failure after one year and two years, respectively

The overestimation level of active users traditionally observed in the registration system is presented in figure V.16 for the IUD and in figure V.17 for surgical methods. A reconstruction of active users through cohorts of acceptants from 1972 to 1994 was made using the continuity rates where the decrease observed during the time, the differences by specific contraceptive method as well as the differences according to the age groups of women are taken into consideration.

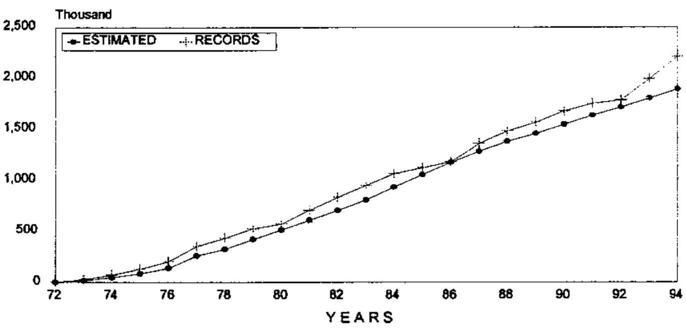
The number of active IUD users estimated with this method is below the figure reported by the registration system in the statistical yearbooks, reporting a growing overestimation in the course of the time, as a result of the continuity rates traditionally used.



Source: Estimates based on SUI of the IMSS; ENP and ENADID.

Figure V.16 Active IUD users, IMSS, urban areas, 1972-1994

This situation is also observed in the reestimation of active users of surgical methods, where also suggests a moderated overestimation because the proportion of acceptants of this method between 45 and 49 years of age has suffered some changes. If they are not considered in the numerical process, their effect is translated into an artificial increase in the number of BTO active users.



Source: Estimates based on SUI of the IMSS; ENP and ENADID.

Figure V.17 Active users of surgical methods, IMSS, urban areas 1972-1994

Apart from the previous analysis and with the purpose of confirming the above mentioned overestimation of the register, other estimates were obtained so to serve as comparison, such as the ones obtained with the model target of the next fertility determinants, as well as those obtained through the contraceptive prevalence and the united female population in procreation age.

The overestimation of active users of the registration system of the IMSS in the urban areas, was of 37% in 1994

In brief, after making several analysis it was concluded that overestimation of active users of the registration system in the urban areas of the IMSS was of 37% in 1994, registering higher levels in the past; for example in 1992 this level accounted for 41%. By specific method, the surgical methods are

overestimated by 13%, the IUD by 86% and the hormones by 50%, as it can be seen in table V.3

Method	*1992 %*	*1993 %*	*1994 %*
Surgical	5	10	13
IUD	107	88	86
Hormones	90	95	50
Total	41	38	37

Table V.3 Overestimation of the active users in the registration system of the IMSS, urban areas 1992-1994

In the specific case of the IUD, the fact of using inadequate continuity rates introduced a 36% effect in the overestimation of active users of this method in 1994, and, therefore, the component of the overestimation in the effect of the registration process itself, is estimated in 38%

In order to evaluate the components of the overestimation in the particular case of the IUD, it was found that the fact of using inadequate continuity rates rose the overestimation of the active users of this method in 1994 by 36%. This data also suggest, while the effect of the overestimation for the use of continuity rates is decreasing, the overestimation result of the effect of the registration process seems to be increasing (Table V.4)

Component	*1992 %*	*1993 %*	*1994 %*
Effect of the continuity rates	51	36	36
Effect of the registration process	36	38	38

Table V.4 Components of the overestimation of active users in the IUD register in the IMSS, urban areas 1992-1994

In the Maternal Health Program

The maternal health program has been a priority in the IMSS since long ago, however actions have been intensified in accordance with the international guidelines emerged from the International Conference on Population and Development in 1994 and the action plan of the IV World Conference for Women in Beijing in 1995, emphasizing the concepts of gender and equity demanded for such a long time by women. In Mexico, as we have already mentioned, the National Women Program, Alliance for Equity was implemented, strengthening in this way these concepts. This approach becomes more relevant in societies like ours, where women have an essential role in the family cohesion, the education of the offspring and the social balance. Therefore, it is fair to offer women, from the moment they are born and during all the stages of their existence, a healthy life, with equitable opportunities, always protecting their bio-psycho-social balance during the gestation period.

It is fair to offer women, from the moment they are born and during all the stages of their existence, a healthy life, with equitable opportunities, always protecting their bio-psycho-social balance during the gestation period

Within this context, the impact each of the suppliers of reproductive health actions becomes obvious, because they offer attention to women in the periconceptional period, during pregnancy, in the delivery and the puerperal stage. They should be attended within a context of health education, promoting their active participation in their own care and with the highest possible professionalism.

In the IMSS, these principles have been traditionally applied in the maternal health care, and the health team has been efficiently involved in it, with the direct action of nurses, social workers and doctors in the different health care levels. This has had as a result a considerable decrease in the maternal morbi-mortality rates in their different indicators

during the last decades. However, many actions still have to be executed in order to achieve the best possible conditions in the care of our female beneficiaries. In this way, within this situation framework, we will emphasize the main achievements and weaknesses that still persist in the maternal health care in 1995.

One of the problems with a negative impact on the reliability of the follow up and evaluation of the main indicators in maternal surveillance, is the existence of an overregistration in the delivery of health care to pregnant women. This registration problem has existed at least since 1992 and still persists. As it can be seen in the table V.5, the percentage of first time consultations in relation to the attended deliveries, was reported as 118.4 both, in 1994 and 1995. Likewise, the total number of antenatal attentions was of 102.2% in 1994 and 89.4% in 1995.

These figures reflect an overregistration phenomenon in the case of first time attentions and its considerable numerical difference with the total number of attentions could indicate an important desertion in the surveillance. This could also reflect an insufficient coverage and quality in the promotion and education actions aimed towards pregnant women in order to keep and improve the continuity in the antenatal surveillance.

Even if the average of antenatal consultations is obviously influenced by the overregistration phenomenon, an increase was registered from 1994 to 1995, going from 6.1 to 6.4 consultations by pregnant women, as it can be appreciated in the same table V.5

In the IMSS, the average of antenatal consultations was of 6.4 attentions per pregnant women in 1995

Another traditional problem in the maternal surveillance has been the low coverage in the

puerperal surveillance. In this way, as it can be observed in table V.5. the surveillance was present only in almost half of the deliveries, accounting for 45.3% in 1994 and 48% in 1995.

The educational promotion strategies and fixing the appointment in the family medicine unit for the puerperal surveillance have not helped to improve these achievements. These efforts need to be further promoted and supported.

The limited participation of the maternal infantile nurse in the maternal health care, where additionally has a direct impact on their productivity, is due to the low referral of low-risk pregnant women by the general practitioner

The productivity of the maternal infantile nurse (MIN) in the antenatal surveillance continues being low, as well as their general productivity. Indeed, in table V.5 it can be appreciated that out of 18 consultations given in one day's work in all the system, the participation of the maternal infantile nurse barely was of 70% and within this productivity, consultations to children under 5 predominates. The limited participation of this staff in the maternal health care, where additionally has a direct impact on their productivity, is due to the low derivation of low-risk pregnant women by the general practitioners. This also has an impact on the quality of the health care, because opportunities for individual educational actions are limited.

The maternal mortality in the IMSS, that in 1994 was of 37.4 per 100,000 children born alive at national level, was of 34.7 in 1995

Indicators	*1994 %*	*1995 %*
Coverage of antenatal consultations	118.4	118.4
Opportuneness of the antenatal consultations	33.8	36.1
Total achievement of antenatal consultations	102.2	89.4
Average antenatal consultations by pregnant woman	6.1	6.4
Coverage of puerperal surveillance	45.3	48.0
Achievement of total consultations of the MIN per day's work (% of 18)	65.9	69.3
Achievement of antenatal consultations of the MIN per day's work (% of 7)	32.7	33.6
Interviews to pregnant women per month of social labor (% of 32)	108.7	105.6
Sessions with pregnant women per month of social labor (% of 8)	103.8	95.0
Antenatal consultations of the AHN per day's work (% of 18)	29.7	36.4
Maternal mortality		
Maternal death rate	37.4x 100,000 B.A.	34.7x 100,000 B.A.
Notified maternal deaths	279	238
Analyzed maternal deaths	279	238

Table V.5 Maternal surveillance indicators, IMSS, 1994-1995

A similar low productivity phenomenon, but even more accentuated, is observed for a two-year analysis, in the case of the antenatal hospitalary nurse (AHN). In table V.5 it can be appreciated what the productivity of the AHN, is even if it increased slightly in 1995, consultations only accounted for 36.4% of those that should be given by day's work in theory.

The maternal mortality in the IMSS, in 1994, was of 37.4 per 100,000 children born alive (BA) at national level, compared to 34.7 in 1995. It is necessary to continue making a strict comparison with the death certificates for maternal deaths, in order to guarantee the quality of the registers.

In the Child Health Program

The health care to children younger than 5 in the Institute is given through consultations for the surveillance of the growth, nutrition and development (GND) for both, children younger than one and for children between 1 and 4 years of age in the first and subsequent consultations. The consultations given by the maternal infantile nurses for health education and orientation to the family should be added to these figures.

The care given to children younger than 5 in the Institute basically consists on consultations for the surveillance of the nutrition, growth and development for both, the children younger than one and for the children between 1 and 4 years of age

By 1995, the average number of consultations given to children younger than 1 was of 4.84 and for children between 1 and 4 years of age was 5.27. At national level (achievement of goals) for children younger than one it was of 95.78% and for children between 1 and 4 years of age was of 64.07%

There are conditions certain that make easier the attainment of the goals during the first year of life, when the mother or family are more motivated to take the children to the doctor. Maybe one of the

causes could be the possibility of getting support (formulas) to feed them.

Of the promotion actions increase in order to make families conscious of health risks, it is possible parents would be better motivated to take children to the doctor more frequently for educational, nutritional orientation and specific protection actions, such as vaccinations and others required by each pre-school child.

One of the more sensitive indicators in the health conditions of a population are the mortality rates in the different childhood periods. One of the main mortality rates of children younger than 5 is the perinatal period I, i.e. from the 28th week of gestation up to the 7 first days of extrauterine life. This period also includes the late fetal mortality, which goes from the 28th week of gestation until the moment of birth, and the hebdomadal or early antenatal mortality, that complements the first definition of birth and before the seventh day. The infant mortality reveals us the significant events occurred during the first year of life and, finally, the pre-school mortality reveals us the events after the first year and before the five years of age.

The behavior of the Perinatal Mortality !, in terms of rates during the last four years, has shown a considerable decrease because in 1992 there were 18.00 deaths per every 1000 children born alive and, for 1995, it was of 15.19 per every 1000 children born alive. The hebdomadal mortality also participates in this decrease, but with larger figures: in 1992 it was of 9.20 per every 1000 and it decreased to 7.95 in 1995.

The perinatal mortality I in the IMSS in 1995 was of 15.19 per every 1000 children born alive at national level

The causes have not presented any modifications; the diagnosis have shown slight variations in their

ranking. If we considered the first causes we would be talking about practically 85% of the total number of deaths. This has allowed us to identify four lines of action in the classification of the diagnosis, useful to establish strategies aimed towards decreasing even more the reported rates. The mortality allows to establish an action line in accordance with the reported diagnosis defined as the event derived from prematurity, important for the curative and preventive actions during this period. Other action lines are the attendance of deficiencies in the neonatal obstetric period, the defects by the time of birth and the infectious complications, one of the most serious problems in the newborn babies.

The period comprised in the infant mortality subjects is gradually influenced by the events happened during the first seven days of life, because the magnitude of the deaths occurred during this period has an impact on death rates and their causes, as well as on the perinatal period I. In 1992, there were 14.74 deaths by every 1000 children born alive, however, by 1995, this rate decreased to 12.60. The causes are similar to the perinatal period, only with the occasional appearance of causes such as diarrhea or respiratory infections. However, causes of the newborn mortality prevail during this period as well.

In 1995, the pre-school mortality rate was of 43.80 per every 100,000 IMSS beneficiaries

The behavior of the mortality related to the pre-school stage is practically stable; these figures did not register substantial changes. In 1992, 47.70 deaths were registered for every 100,000 beneficiaries, while in 1995, the rate registered a slight decrease to 43.80. During these four years rates and causes did not experienced significant changes.

The main causes in this age group still are the infectious, digestive and respiratory processes, as well as the neoplasias, the malformations and birth defects in the children survivors during the first year of life.

Taking into account facts and figures as it is the discussion brought from them we may conclude, causes are still characteristic of the poverty pathology.

The interventionist actions to be executed during the next years, should be aimed at evaluating the nutrition, growth and development level allowing us to establish preventive methods to avoid these damages to the children's health, increasing in this way the life expectancy of the pre-school children as well as the healthy life years.

In the Sexual and Reproductive Education Program for Adolescents

During the last years the IMSS has allocated considerable resources to define the situation of the adolescents in the field of sexual and reproductive education with the purpose of creating programs, in coordination with other institutions, in order to guarantee the access of this priority group of the population to: schemes of prevention and promotion of the health self-care, offering a qualified and warm medical care, ensuring in this way a healthy reproductive life which necessarily involves a balanced development, determinant factor in the future life of the adolescent, influencing in this way the development of the country.

According to 1990 census, the population between 10 and 19 years of age

According to 1990 census, the age group between 10 and 19 years constituted 25% of the country's population and accounted for 20 million adolescents.

During the 90's adolescents became the larger age group both, in absolute and relative terms, in the population pyramid, because the contraception reduced the number of births that used to make the children younger than five the majority group.

constituted 25% of the country's population and accounted for 20 million adolescents

The obstetric care should be essential in the care of female adolescents, since their fertility did not decrease as in other groups of women in procreation age. On the other hand, the deficient use of contraceptive methods and spontaneity in the sexual relations of the adolescents had as a result a considerable number of unwanted pregnancies, induced abortions and increased maternal and infant mortality. The appearance of AIDS has worsened the risks to adolescents' health and become the fourth cause of death, registering the highest incidence in the age group of 25 to 29 (due to the long incubation period of this disease).

The appearance of AIDS has worsened the health situation of the adolescents and become the fourth cause of death in this age group

The care to adolescents is justified with the following epidemiological criteria:

- Magnitude: during 1994, the age group between 10 and 19 represented 16.7% of the population registered in the family medicine units, with a total number of 3,919,640 adolescents.

In 1994, in the IMSS, the age group between 10 and 19 years represented 16.7% of the population registered in the family medicine units with a total number of 3,919,640 adolescents

- Importance: in 1994 the morbidity of adolescents caused more than 20 thousand cases of transmittable diseases, 10,747 cases of sexually transmitted diseases (STD), 7.3 million consultations to general practitioners, 1.2 million consultations provided by specialists, half a million emergency services, and 105,295 hospitalizations. The fertility care included 150,798 births and 62,648 new acceptants of contraceptive methods. The mortality rate of adolescents was

of 31.02 demises for every 100,000 adolescents and represented, in absolute figures, 1,216 deaths.

The bio-reproductive diseases that affect adolescents are highly preventable with hygienic and family planning measures

- Vulnerability: we should consider the bio-reproductive diseases which affect the adolescents are highly preventable with hygienic and family planning measures.
- Feasibility: the resources the IMSS has to face the adolescents' problems are the most abundant in the country from the medical, cultural, social and sports point of view.

Objectives of the Reproductive Health and Maternal-Child Health Coordination of the IMSS

General objectives for the administration of the Coordination in the fields of operation, administration and human resources are established as part of the strategic planning:

General objectives

Deliver health care to the trinomial father/mother/child, in order to improve their reproductive health level

I. deliver health care to the trinomial father/mother/child in order to improve their reproductive health level both, in the urban and rural areas to the same extent.

II. support the harmonious growth of the population both, in the urban and rural areas.

Achieve a more equitable participation between the genders in order to promote a change in the reproductive behavior pattern

III. apply specific strategies that favor a more equitable participation between the genders and promote a change in the reproductive behavior pattern of the couples.

IV. promote the postponement of the age of marriage and conception of the first child, as well as an

adequate age difference among children, and the timely termination of the fertility, according to the satisfied parity and the reproductive risk.

V. ensure a decrease in the morbidity and mortality rates of the binomial mother-child and an adequate development of the child, providing integral orientation and care to the adolescents in their reproductive life.

Ensure a decrease in the morbidity and mortality rates of the binomial mother-child

Specific objectives

Within the context of the integral approach, it must necessarily be applied to the specific objectives of the reproductive health processes, already described:

1. About the process of the reproductive health attention.

- apply the integral approach of the reproductive health in the family planning actions.

Apply the integral reproductive health approach in the family planning actions

- improve the access of the urban and rural population to the family planning program, emphasizing the higher risk groups.

- include the gender perspective in the design and execution of the family planning programs, in order to promote a significant change in the activities and participation of men in this decision.

Include the gender perspective

Promote the participation of men

- contribute to decrease the maternal and perinatal morbidity and mortality rates.

- establish priorities and specific strategies region-wise, in accordance with the diagnosis of the situation, in order to deliver health care with

effectiveness and opportuneness the unmet contraceptive methods demands.

- strengthen the community participation in the reproductive health and family planning actions.

Improve the sexual and reproductive health of adolescents through the free and responsible exercise of their rights

- improve the sexual and reproductive health of adolescents through the free and responsible exercise of their rights.
- decrease the STD and AIDS incidence among the insured population, especially among the adolescents.
- decrease the fertility rate of the adolescents.
- increase the safe sex practice among the adolescents.
- increase the contraceptive coverage among the adolescents.

Improve the medical care and educational activities for women during the menopause and climacteric stages

- systematize and improve the medical care and the educational activities for women during the menopause and climacteric stages.
- support the prevention and timely detection of the cervical-uterine and mammary carcinomas

2. About the perinatal health care process.

- increase the coverage and quality of the antenatal, delivery and puerperal care provided to the insured women, specially to the adolescents.

Decrease the maternal- and child morbidity and - mortality rates

- decrease the maternal and child morbidity and mortality rates among the adolescents.

- increase the coverage of the antenatal and puerperal surveillance provided to the users of the medical services.

Increase the coverage of the antenatal and puerperal surveillance

- contribute to reduce the maternal mortality for preeclampsia-eclampsia, obstetric hemorrhages and puerperal sepsis.

- increase the opportuneness and quality of the antenatal and puerperal care, through the application of the obstetric risk approach.

Increase the opportuneness and quality of the antenatal and puerperal care through the application of the obstetric risk approach

- increase the coverage and improve the quality and registration of the maternal health educational activities for the population.

- improve the registration and codification procedures of the maternal surveillance activities, as well as of the morbidity and mortality rates in the family medicine units and hospitals.

- participate in actions aimed at improving the opportuneness, quality and efficiency of the antenatal care provided by the family medicine units of the IMSS.

Improve the opportuneness, quality and efficiency of the antenatal care

- contribute to the timely detection of risks in the obstetric and antenatal care provided to pregnant women and their children in the facilities of the institution, avoiding in this way damages to the health of the mother and the newborn.

- decrease the late fetal, hebdomadal and perinatal mortality rates.

3. About the infant health care process.

- improve the nutritional conditions of children younger than five, ensuring in this way a

Improve the nutritional conditions of the children younger than

five, ensuring in this way a harmonious growth and development

harmonious and adequate growth and development.

- reduce the existing malnutrition rates among the insured population younger than five years old.

Decrease the mortality rates in the infant and pre-school stages

- decrease the mortality rates in the infant and pre-school stages of the IMSS beneficiaries.
- promote and establish a system for the development validation of children younger than 5 in the Family Medicine Units, based on the criteria of Conduct Evaluation according to Gessel, adapted by the CLAP (Latin-American Center of Perinatology and Human Development).

Establish the necessary criteria and guidelines for the ablactation and nutrition of children under five years old, emphasizing the maternal lactation during the first year of life

- establish the necessary criteria and procedures for the ablactation and nutrition of under five years old children, emphasizing the maternal lactation during the first year of life as well as the socio-economic conditions of the population of each region of the country.
- coordinate actions aimed at promoting the generalization of procedures for the nutrition, growth and development of under five years old children in the medical attention and the IMSS day care centers.
- support and adopt the institutional policies established by the Community Health Coordination for the immunization of under five years old.
- participate and support the institutional program Pronaced-IRA, whose main operative guideline is to evaluate the growth and development of under five years old children, emphasizing the risks and the preventive actions.

Strategic Goals 1996 - 2000

The objectives are aims to be attained in the long run and the goals are purposes to be achieved in the short run; when the goals are achieved we fulfill the established objectives.

The goals are stages or phases that allow to ensure the fulfillment of the objectives, specifying who, how and where the actions will be executed in favor of the population.

The goals are stages or phases that allow to ensure the fulfillment of the objectives

About the reproductive health care process

- achieve a contraceptive coverage of 77.5% for a population of 11.2 million women in procreation age, out of which 8.8 million live in the urban areas and 2.4 million in the rural areas.

Achieve, by the year 2000, a contraceptive coverage of 77.5% for a population of 11.2 million women in procreation age

- attend 5 million programmed active users, 4,300,000 in the urban areas and 700,000 in the rural areas.

- attend one million programmed acceptants (new users), 900 thousand in the urban areas and 100 in the rural areas.

Attend one million programmed acceptants

- make a diagnosis of the sexual and reproductive health of the adolescents every year, until 2000.

- give seven regional training courses for the adolescents every year, until 2000.

- organize three national congress on the sexual and reproductive health of the adolescents.

- edit three manuals of regulations and procedures for the integral care of the adolescent.

Attend 4,237,572 adolescents as object population

- attend 4,237,572 adolescents as object population.
- train 74,100 teachers, 74,100 parents and 148,200 young promoters as monitors.
- organize 3,390,057 orientation sessions on sexual and reproductive health.
- detect 3,390,057 high sexual and reproductive risks.
- attend 8,457,144 adolescents through the general practitioners.

Achieve that 296,630 adolescents accept family planning methods

- achieve that 296,630 adolescents accept family planning methods.
- establish 5928 attention centers for the adolescents distributed as follows: 1,482 in recreational centers, 2,964 in high schools and 1,482 in working centers.
- create 1695 help groups: 565 in sports centers, 565 in cultural centers and 565 in recreational centers.
- establish 1,334 service centers for the specific care of the adolescents, 112 service centers for the integral care of adolescents and 5 clinics for the same purpose.
- distribute 148,200 sexual and reproductive health self-care agendas among adolescents.

About the perinatal health care process

- register and train, by the year 2000, 15,500 rural midwives.

- train 804 rural midwives for the prevention of antenatal tetanus.

- achieve that the attendance of around 4 deliveries, per midwife so that a total number of 63,974 deliveries are attended by them.

- achieve and keep a 100% antenatal surveillance coverage among pregnant women, in terms of attended deliveries.

Achieve and keep a 100% antenatal surveillance coverage among pregnant women, in terms of attended deliveries

- achieve that 60 per cent of the first-time consultations for antenatal surveillance are provided during the first three months of pregnancy.

- increase the average antenatal surveillance provided to pregnant women from 6.5 in 1995 to 9 in 2000.

- provide puerperal surveillance, at least once, to all pregnant women in terms of the attended deliveries.

Evaluate and assess the obstetric risk in all the first-time antenatal care

- evaluate and assess the obstetric risk in all the first-time antenatal care.

- achieve a timely identification and referral of 100 per cent the cases of obstetric complications and be referred from the first to the second level of care.

- include 80 per cent of the pregnant women to the individual and group educational activities attended by the nurses and social workers in the family medicine units.

- contribute to reduce the frequency of the cesarean operation in the institute to 30 per cent the attended deliveries.

Reduce the maternal mortality to 27 of every 100,000 children born alive, by the year 2000

- reduce the maternal mortality rate to a 27 for every 100,000 children born alive by the year 2000.

- notify, analyze and report 100 per cent the cases of intra-hospital maternal death, through the corresponding study committees.

Decrease the perinatal mortality rate I to 12 for every thousand births by the year 2000

- decrease the perinatal mortality rate I to 12 for every thousand births by the year 2000.

- achieve a percentage lower than 10% for the low weight births in the IMSS (less than 2,500 g).

- establish committees of study of antenatal mortality in all the hospitals that provide obstetric care.

- report, by the year 2000, 50% of the perinatal death cases.

- provide neonatal resuscitation training to all the staff that participates in the deliveries.

Certify and re-certify the 187 hospitals that have joined the baby friendly hospital initiative in the IMSS, by the year 2000

- certify and re-certify the 187 hospitals that have joined the Baby Friendly Hospital initiative in the IMSS, by the year 2000.

- certify 700 family medicine units and 222 day care centers of the baby friendly hospital initiative.

About the infant health care process

- reduce the infant mortality rate to 10 of every 1000 children born alive by the year 2000.

- reduce the pre-school mortality rate to 35 of every 100 thousand beneficiaries between 1 and 4 years of age by the year 2000.

Reduce the pre-school mortality rate to 35 by every 100 thousand beneficiaries between 1 and 4 years of age by the year 2000

- report, by the year 2000, 50% of the infant and pre-school death cases.

- know, by the year 2000, the nutritional condition of the under five years old children registered by the family medicine units, delegations and regions of the IMSS.

- reduce by 50% the percentage of any malnutrition degree among the infant and pre-school population by the year 2000, when compared to 1990 figures.

Strategies of the Reproductive and Maternal and Child Health Coordination of the IMSS

The strategies, as general action procedures, show the direction and general allocation of resources and efforts of all participants in the reproductive health processes in the IMSS.

The strategies, as general action procedures, show the direction and general allocation of resources and efforts of all the participants in the reproductive health processes in the IMSS

1o. creation of a regional and delegation structure in accordance with the institutional framework in order to strengthen the reproductive health and family planning actions.

2o. promote the self-administration of the regional and delegation levels while planning the activities comprised in the programs.

3o. outline the strategic plan by region and delegation in accordance with the diagnosis of the situation.

4o. strengthen the organizational structure of the regional, delegation and operative levels.

5o. establish and apply a plan to evaluate the fulfillment of the general guidelines at regional and delegation levels.

Promote and support studies of clinic and operative research on reproductive health and family planning

6o. promote and support studies of clinic and operative research on reproductive health and family planning, at regional and delegation level both, in urban and rural areas.

7o. promote and support research studies on reproductive health, in the patterns and determinants for the use of contraceptive methods.

Promote the participation of all the health staff of the medical units in the execution of the family planning activities

8o. promote the participation of all the health staff of the medical units in the execution of the family planning activities.

9o. evaluate the existing system of family planning information.

10o. make periodical audits to the information system at delegation and operative level and re-adapt the system based on the results of the audit.

Establish a permanent system of evaluation of the family planning actions and their effect on the population

11o. establish a permanent system of evaluation of the family planning actions and their effect on the population.

12o. distribute and promote normative documents among the different levels of care.

13o. promote the knowledge and observance of the current family planning norms.

14o. identify the educational promotion needs of pregnant women and women in procreation age in

order to increase the timely and systematic use of the antenatal and puerperal surveillance service.

Promote the participation of the population in the self-health care

15o. design educational material to promote the participation of the population in the self-health care during pregnancy, their attendance to the antenatal and puerperal surveillance and evaluate its results.

16o. reorient the education, communication, promotion and supply of services towards the early stages of the reproductive cycle of women and the couples, promoting and providing information on the reversible methods, especially on the latest ones.

Increase the variety of contraceptive methods, considering only those will higher efficiency, continuity and accessibility and less side-effects

17o. increase the variety of contraceptive methods, considering only those with higher efficiency, continuity, accessibility and less side-effects.

Consolidate the promotion of activities for the reproductive health education of men

18o. consolidate the promotion of activities for the reproductive health education of men.

19o. establish procedures to promote the results of the studies concerning the participation of men in the family planning activities.

20o. establish an scheme to evaluate the characteristics of each modern contraceptive method in order to include them in the basic list of medicines of the institute.

21o. diversify and strengthen the institutional and inter-sectorial strategies aimed at providing definitive methods to all the women in the rural area that require it so.

Under flexible and innovative schemes, promote the participation of the community voluntaries in the identification of women with reproductive risks, in

22o. under flexible and innovative schemes, promote the participation of the community voluntaries in the identification of women with reproductive risks, in order to include them into the family planning program

order to include them into the family planning program

23o. train voluntaries to participate in the priority tasks, providing sufficient resources.

24o. strengthen the access of all women in the disperse rural areas to the family planning services.

25o. improve the access of the rural disperse and indigenous population to the contraceptive methods.

Provide training on reproductive counseling and application of contraceptive methods to the institutional and voluntary personnel

26o. provide training on reproductive counseling and application of contraceptive methods to the institutional and voluntary personnel.

27o. increase the service supply capacity, especially for the uncovered population through evening services and surgical modules.

28o. improve the accessibility and opportuneness of the definitive methods through simplified surgical techniques both, in the urban and rural areas.

29o. extend the family planning activities to the rural communities and disperse areas through reproductive health courses.

30o. consolidate the extension of the training activities in reproductive health counseling to the institutional and community health staff.

Strengthen the participation of the deputy chief of family planning nurses in the promotion and supply activities of post-delivery and post-abortion contraceptive services

31o. strengthen the participation of the deputy chief of family planning nurses in the promotion and supply activities of post-delivery and post-abortion contraceptive services.

32o. evaluate the usefulness of alternative contraceptive resources in specific groups of the population.

33o. update and/or establish norms to prevent and attend the four main maternal morbidity and mortality causes and support their observance in the operative units, through regional and delegation criteria.

Generalize the evaluation of the obstetric risk of all the pregnant women

34o. establish regulations to generalize the evaluation of the obstetric risk of all the pregnant women who use the medical services and aim the care preferably towards the high-risk population.

35o. promote the training of the staff that provides maternal health services in order to facilitate the systematization of actions in the clinic and operative practice.

36o. establish and/or update the registration and codification of the maternal morbidity and mortality and update them in accordance with the international classification of diseases.

Establish schemes for the systematization of actions for the care of menopause and climacteric stages in the family medicine units

37o. update and/or create schemes for the systematization of actions for the care of menopause and climacteric stages in the family medicine units.

38o. provide training in the latest techniques and procedures for the neonatal cardiopulmonary resuscitation.

39o. execute the pathologist's analysis of the perinatal death cases (committees of study on perinatal, infant and pre-school mortality).

Promote the maternal lactation at least during the first four months of life

40o. promote the maternal lactation at least during the first four months of life and establish the ablactation process after the fourth month of extrauterine life.

Timely detection of alternations in the

41o. timely detection of alterations in the infant and pre-school growth through the adequate use of the

infant and pre-school growth

international use reference patterns that allow specific and intensive actions aimed at children with malnutrition risk.

42o. provide nutritional counseling to mothers of the healthy children younger than five or children with malnutrition and repercussion in their ponderal growth.

43o. support specific medical treatment in all types of malnutrition that require hospitalization (strategy undertaken by the medical care coordination).

Timely detection of alternations in the infant and pre-school development in the language, social and movement coordination areas, through the application of the criteria for the evolution evaluation of conduct

44o. timely detection of alternations in the infant and pre-school growth in the language, social and movement coordination areas through the application of the criteria for the evolution evaluation of conduct by Gessel, adapted by the CLAP (Latin-American Perinatology and Human Development Center).

Application of the early stimulation program

45o. application of the early stimulation program to children that require this type of support for their development.

46o. participation in the educational and orientation strategies aimed at the mothers or families of the children younger than five in order to get the available immunizations.

47o. application of the educational and treatment criteria in the morbid processes, acute diarrhea, acute respiratory infections in the activities of the maternal infantile nurse and social workers.

Participation in special programs for the congenital hypothyroidism and folic acid deficiency

48o. participation in special programs created by the direction of medical benefits or its coordinations for the congenital hypothyroidism and folic acid deficiency.

Tactics of the Reproductive Health and Maternal and Child Health Care Coordination of the IMSS

In the strategic planning it is essential to design tactics which are a group of activities that allow to attain the objectives and support the strategies. The tactic plans are normally designed for the middle run and support the strategic plans. The strategies are established first and the tactics make the implementation of the strategies possible.

The tactics are a group of activities that allow to attain the objectives and support the strategies

In the IMSS, due to its administrative organic structure, the tactics are created by the regional level in accordance with the specific conditions of the insured population, considering their needs and demands in the field of reproductive health, establishing in this way specific tactic, strategic and operation plans for each region, always considering the mission, vision, objectives, goals and strategies of the Reproductive

The tactics are created by the regional level, in accordance with the particular conditions of the insured population within their scope of action, always considering their needs and demands

Health and Maternal and Child Health Care Coordination of the IMSS, considered the guiding body.

General strategic plan of the Reproductive Health and Maternal and Child Health Care Coordination of the IMSS

Is the plan where the most important aspects of the Coordination are described; an ideal scenario is established based on a diagnosis of the situation, and the trend scenarios are determined through the implementation of action plans and using the resources required to achieve an ideal environment in the long run.

The trend scenarios are determined through the implementation of action plans and using the resources required to achieve an ideal environment in the long run

Decentralization of the operative duties of the family planning program and the reproductive health care processes

- Decentralization of the duties of the family planning program and reproductive health care processes

In accordance with the National Development Plan of the Federal Executive Power, the main strategy to execute the family planning program is to decentralize the operative duties in this field and in the reproductive, perinatal and infant health care, allowing each of the delegations to have a wider field of action and a larger self-administration capacity, in order to fulfill the objectives and goals.

Extension of the coverage and improvement of the quality of the services

- Extension of the coverage and improvement of the quality of the services

With the purpose of extending the coverage of the services to improve the access of certain groups of the population, a strategy for the extension of the coverage to the institutional and uninsured population of the urban and rural areas will be established, keeping as essential elements the quality in the information and supply of services, adequate logistics for the inputs, permanent training to the service suppliers, interpersonal communication and follow up of the users, besides strengthening the evaluation and operative research actions, always respecting the sexual and reproductive rights of the trinomial father/mother/child.

- Information, education and communication (IEC)

The main aspect of the current approach of the reproductive health is to execute education, promotion, prevention and rehabilitation activities to ensure the access to a wide scope of information, reproductive health and family planning services.

The basic educational strategy is to evaluate the processes and educational materials so that every

specific group adopts a contraceptive scheme which could modify their reproductive pattern, with an integral reproductive health approach.

Concerning the communication, the main strategy is to establish interaction channels that allow to strengthen the attention and promote the interest in the informative and educational messages.

General operative plan of the Reproductive and Maternal and Child Health Care Coordination of the IMSS

Consists in scheduling the goals established in a general one-year strategic plan, specifying the quantities and qualities of every aspect of the operation, establishing monthly or three-month periods for the attainment of goals and appointing officers to be in charge of these goals. In all the cases contingency plans must be established (options to solve unexpected situations occurred during the planning process) that allow to attain the established goals and objectives.

Consists in scheduling the goals established in a general one-year strategic plan, specifying the qualities and quantities of every aspect of the operation, establishing monthly or three-month periods for the attainment of goals and appointing officers to be in charge of these goals

This book does not endeavor to develop and present the complete general operation plan of the Coordination; however, we have included the main aspects that will serve the reader as reference.

- strengthen the service family planning capacity of the different medical units.
- promote the participation of all the health staff of the medical units in the execution of the reproductive health care and family planning activities.

Strengthen the participation of all the health staff of the medical units in the execution of the reproductive and family planning activities

- increase the supply of services, especially to the general population, through evening services and surgical modules.

- improve the accessibility and opportuneness of the definitive methods through simplified surgical techniques both, in urban and rural areas.

- reorient the education, communication and promotion of services activities towards the early stages of the reproductive cycle of women and the couples, providing objective information on the reversible methods, especially on the latest ones.

- increase the training activities for reproductive health counseling provided to the institutional and community health staff.

Strengthen the participation of the deputy chief of family planning nurses in the promotion and supply activities of post-delivery and post-abortion contraceptive services

- strengthen the participation of the deputy chief of family planning nurses in the promotion and supply activities of post-delivery and post-abortion contraceptive services.

- consolidate the promotion of activities for the reproductive health education of men.

- train the institutional and voluntary personnel in reproductive health, application of contraceptive methods, reproductive risk and perinatal health care.

- increase the variety of contraceptive methods, considering only those with higher efficiency, continuity, accessibility and less side-effects.

- evaluate the characteristics of each modern contraceptive method in order to include them in the basic list of medicines of the IMSS.

- evaluate the usefulness of the alternative contraceptive methods in specific groups of the population.

- make periodical audits to the registration and information systems at regional, delegation and operative levels.

Make periodical audits to the registration and information systems at regional, delegation and operative levels

- make changes to the registration and information system based on the results of the audit.

- establish a permanent evaluation system of the actions of the Coordination and their impact on the population.

- improve the access of the disperse rural and indigenous population to the contraceptive methods and reproductive health care services.

Improve the access of the rural disperse and indigenous population to the contraceptive methods and the reproductive health care services

- extend the activities of the Coordination to the rural communities and disperse areas through reproductive health courses.

Methodology of the strategic planning for its operative implementation

The success of the reproductive health care system not only depends on transforming a complex process into a number of simple and progressive steps, but on establishing a growing chain of experience, knowledge and capacities and on executing the actions required by each link of the chain, where the care level of the integral reproductive health approach is defined, specifying the type of training the staff needs, as well as the healthy life standards of the trinomial needs to be attained. It is also important to determine the objectives and priorities, as well as the reliability degree of the information system.

The director of the unity normally determines the strategy, analyzing the internal environment of his unit and his preferences

The director of the unit is the one who normally determines the strategy, analyzing the environment and preferences, always considering the strong and weak points of the unit, the opportunities and threatens, as well as the ethic and social values of the institution.

With this method, the director analyzes the internal environment of his unit, considering its limitations and achievements, he also studies the general situation and, finally, establishes his preferences taking into consideration the social values of the population.

The above mentioned analysis is the cornerstone for the strategic planning, because it determines the position of the unit as well as the actions to be executed (what, when and how much) aimed at developing the strong points of the unit and reducing the weaknesses. As we can see, the strategic planning requires an adequate methodology for its execution.

There are several methods, however all of them have the following common processes:

- strategic position of the unit
- establishment of the objectives
- establishment of the strategies to attain the objectives
- implementation of strategies

A scheme that shows the strategic planning process is presented next:

The strategic positioning of the unit consists in analyzing and evaluating the internal and external environment, with the

The strategic positioning of the unit consists in analyzing and evaluating the internal and external environment, with the purpose of presenting strategic alternatives and providing criteria to select the action

options; for this purpose the mission and vision established by the Coordination are taken as starting point.

purpose of presenting strategic alternatives and providing criteria to select the action options

This positioning process is not static, because it considers the trend of the internal and external factors that have an impact on the unity as a result of the behavior and demands of the insured population that receives the services. For this reason a continuos updating process is required.

The analysis of the internal factors endeavors to detail aspects of strategic importance for the unit, because they represent the strong points or weaknesses that should be considered in the establishment of the strategies.

The internal analysis can be executed analyzing the performance through financial indicators as well as the value and performance of the service, the development of new services, the management quality and the efficiency and motivation of the staff.

The main objective of the internal analysis is to identify parameters in order to follow a strategy that takes advantage of the strong points and reduces the impact of the weaknesses

The main objective of the internal analysis is to identify parameters in order to follow a strategy that takes advantage of the strong points and reduces the impact of the weaknesses.

It should measure the impact of the actions coordinated by the unit and the productivity of the services as the main variables of the unit's performance, because they reflect the capability of the organization to have an effective operation. This analysis must be executed with information of the last three to five years in order to determine the historical trend.

It is also necessary to measure the performance of the unit with other type of indicators that reflect the

viability and health of the unit in the long term. The participation of the unit in the system should be considered an important factor, because the biggest units can have economic advantages and a good negotiating position with the suppliers for the decentralized supplying services.

The analysis of the external factors provides the raw material to determine the strategy that must be aimed at identifying the threatens and opportunities for the unit

The analysis of the external factors provides the raw material to determine the strategy that must be aimed at identifying threatens and opportunities for the unit. This analysis includes both, the beneficiaries and their environment.

The analysis of the beneficiaries allows to identify the likings and preferences of the population as well as the unmet needs and demands of the beneficiaries with the purpose of evaluating the possibility of meeting the unsatisfied demands.

The analysis of the environment includes the following aspects: technological, government, cultural and demographic issues

In order to analyze the environment, it is important to determine what factors will be considered and to study the impact of the unit's service, because the environment includes technological, government, economic, cultural and demographic aspects. The cultural and demographic aspects could be irrelevant for the strategic planning; however, they could represent barriers.

It is necessary to identify what are the factors that determine the success or failure of any unit and the position of the unit towards these factors, i.e. if it has the necessary strong points to turn the factors into opportunities or if the weaknesses will become threatens

Once the internal and external analysis is executed and the strong points and weaknesses of the unit, as well as the opportunities and threatens, are determined, it is necessary to identify what are the factors that will determine the success or failure of any stage of the service as well as the position of the unit towards these factors, i.e. if there are the necessary strong points to turn the factors into opportunities or if the weaknesses will become threatens. This is the cornerstone to determine the strategic objectives.

Once the analysis of the strategic position of the unit within the system is executed, i.e. once we know the strong points, weaknesses, opportunities, threatens, mission, ethic and social values, the objectives towards which the strategy and effort of the reproductive health attention unit must be aimed can be established.

At this stage, the general objectives, that are broad corporate guidelines, must be established. These objectives will lead the administration of the attention unit in the basic operation, administration and human resources aspects that must be kept for a long period, because they constitute the pillars of a long-term plan (prospective) aimed at fulfilling the mission and vision already established.

The general objectives, that are broad corporate guidelines, must be established. These objectives will lead the administration of the unit in the basic operation, administration and human resources aspects

The strategy must consider the opportunities and threatens of the environment, include a competitive sustainable and feasible advantage that takes into consideration the strategic objectives and the relation with the other strategies of the unit and the system.

The sustainable competitive advantage is essential for the long-term success and must be based on the activities, knowledge and talent of the organization. The strategy must endeavor to neutralize the weaknesses.

The strategy consists in the service differentiation offered by the unit, creating something unique.

The strategy consists in the service differentiation offered by the unit, creating something unique

The service will provide an added value to the beneficiary through a better performance, quality, prestige, service, reliability or convenience of the service.

The following factors must be considered in order to implement the strategies result of the above mentioned issues:

- human resources
- material resources
- financial resources
- technological resources

It is important to mention that the strategies are implemented within a previously fixed organization and can mean a relevant changes in the way of operating

It is important to mention that the strategies are implemented within a previously established organization and can mean a relevant changes in the way of operating and interacting with its members; therefore, the success or failure of the implementation of a strategy can depend on the knowledge and use of these factors.

It is necessary to evaluate the authority and communication lines in order to achieve a better coordination

Due to the fact that the strategies are implemented within the organization, it is necessary to evaluate the authority and communication lines in order to achieve a better coordination among the people engaged in the process. The existence of an informal communication must be considered, as well as the establishment of special working groups, creating incentives to achieve an enhanced participation of the members.

It is important to know the number, knowledge, experience and capabilities of the people

Due to the fact that the strategies are based on the capabilities of the organization and on the people, it is important to know the number, knowledge, experience and capabilities of the people.

According to the results of the analysis of the unit's human resources, we have the following alternatives:

1. Train the existing personnel

2. Bring experience from outside, i.e. to hire qualified personnel

The values of the unit must be considered while implementing the strategies because these should not contradict the values but, on the contrary, the strategies must support the values in order to achieve an enhanced identification with the personnel.

The culture could be defined as:

- **a number of informal rules that describe the behavior of people most of the time**
- **a number of believes and expectations of the members of the organization that lead the behavior of the individuals or groups within the organization**

It is essential to consider the aspects involved in the organizational culture, defined as a number of informal rules that describe the behavior of people, along with a number of believes and expectations of the members of the organization, that lead the behavior of the individuals or groups within the organization.

We must have the necessary systems in order to implement the strategies and have information on the achievements, with the purpose of controlling the performance adequately, result of the implementation of strategies.

The establishment of strategic planning systems necessarily involves the allocation of financial resources

The establishment of strategic planning systems necessarily involves the allocation of financial resources. Normally an analysis of the cost-benefit would be required, in order to determine its financial feasibility.

It is necessary to apply the knowledge of the administrative process, the strategic planning systems, the technical issues (norms, procedures, operations, etc.) provided by the specialized personnel of the different areas of the unit.

In order to verify the fulfillment of the objectives and strategic actions, it is necessary to translate them into detailed plans, that allow to identify adequate measuring elements

Until now we have defined what the strategic planning is, as well as the basic methodology to execute it; however, in order to verify the fulfillment of the strategic objectives and actions it is necessary to translate them into detailed plans that allow to identify adequate measuring elements.

For this purpose three types of plans have been established in the units. These plans, based on the strategic planning, define the operative and financial short and long-run goals.

The financial plan translates the strategic plan into the behavior expected from the basic financial information

The financial plan is the strategic plan in the behavior expected from the basic financial information (statement of earning, labor capital, effective flow and balance) within the same term of the strategic plan (5 or 10 years).

The general operation plan defines the short-term goals based on the strategic actions, identifying the responsible officers and deadlines.

The annual budget details the financial behavior of the unit in the short run

The annual budget that details the financial behavior of the unit in the short run, based on the general operation plan and the business plan, is generally presented on a monthly basis.

The new organizational structure requires to train the working team

The new organizational structure described here demands to train the work team. One of the main factors to have a capable working team is the motivation. There are four factors involved in this process:

I. grasp of the mission and vision
II. having the necessary capability
III. having access to information
IV. obtaining the trust

In order to restructure the Reproductive Health and Maternal and Child Health Care Coordination it is necessary to change the investment priorities

In order to restructure the Reproductive Health and Maternal and Child Health Care Coordination it is necessary to change the investment priorities. For this purpose it is necessary to consider the following aspects:

A. invest and aim the efforts at the administration of processes, programs and projects because they

are the ones that create an added value in the Coordination

B. reduce the weight of the traditional operation duties and the administrative control expenditures from the higher levels to the lower levels, because it reduces the added value

C. eliminate the activities that do not follow the necessary operation process or an imperative for the Coordination

In the Coordination, the planning imperative is to create plans based on the value addition. For this purpose, indexes based on the value must be established and plans based on the imperatives must be used.

The planning imperative is to create plans based on the value addition

It is necessary to change the organization as well as the way in which the resources are used. We must move from an investment cycle based on the duties, to a cycle based on the imperatives that support the new generation imperatives.

The investment based on the imperatives requires to examine the needs of the beneficiaries and then let these needs to establish the imperatives for the use of the resources.

The investment based on imperatives requires to examine the needs of the beneficiaries and then let these needs to establish the imperatives for the use of the resources

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CHAPTER VI

IMPACT OF THE ACTIONS AND INTEGRITY OF THE APPROACH

Equity in the decision-making process

During the last decade, different attempts have been made to optimize the available resources for the health attention of the beneficiaries, improving the benefits in qualitative and quantitative terms ensuring in this way an adequate balance to offer better life standards for a larger number of beneficiaries, especially during the last years when it has become essential to find altematives to improve the health level of the population in ailments where the reproductive health education and promotion are elements essential to implement actions that can be translated into more individual, family and collective welfare.

Nowadays it is very common to face difficult dilemmas in the decision-making process, especially those who direct programs, develop projects, lead research protocols or take political decisions for the reproductive health attention of the population. All of them must consider the available judgment elements, including the most reliable methodology for the decision-making process.

Nowadays it is very common to face difficult dilemmas in the decision-making process, especially those who direct programs, develop projects, lead research protocols or take the political decisions for the reproductive health of the population

In order to illustrate this premise more objectively, some facts are described in this chapter with the purpose of settling the basis for the methodological reasoning that should be taken as starting point for the decision-making process. With this, we endeavor to present an exercise of the intellectual processes that the decision makers must follow. These facts undoubtedly have an impact on the future of the reproductive health of those who express their demands, hoping to get their needs met. Sometimes, it is difficult to achieve this goal due to the complexity of the attention: it is necessary to fulfill the expectations and, at the same time, improve the reproductive health of the population in such a way

that this decision can have a positive effect on the morbidity and mortality patterns of the population within a certain period, knowing that the best effort was done and the best resources were used. While assuming these concepts, the other demands and needs, to which the same exercise is applied, should not be neglected. The same enthusiasm and security elements must be applied in order to take the most convenient decisions, always ensuring equity.

It is usual to find situations where the decisions are taken based on the proposals made by those in charge of analyzing the reproductive health problems of a certain population

It is usual to find situations where the decisions are taken considering the proposals made by those in charge of analyzing the reproductive health problems of a certain population. In most of the cases, analytical processes are followed that, in terms of attention, are translated into budget schemes by program, taking the risk of establishing parallel administrative structures that, once in operation, can not be shared with other processes that require a certain intercommunication. As a result, the actions are not integrally evaluated and the holistic commitment of the reproductive health attention is not followed.

Whenever intervention proposals are made by area of attention or risk factor, there must exist certain basis to take decisions for the instrumentation and allocation of resources; however, this is not enough if we endeavor to make an integral effort in the reproductive health attention, in its promotional, preventive, curative and rehabilitation approaches, because otherwise the interventions required to identify the effect of the actions in individual, family and community terms are jeopardized.

It is common to face dilemmas when one has to decide to implement actions and allocate resources to programs or projects that have a

It is common to face dilemmas when one has to decide to implement actions and allocate resources to programs or projects that have a considerable impact on the reproductive health of the population; some times the difficulty of the decisions increases

when one has to choose between proposing a realistic action to promote the use of a certain contraceptive method that has proved to have good results, and promoting a project of study of values and community participation in order to apply sanitary programs to the priority population in the rural areas. It is also difficult to decide between a program aimed at the beneficiaries that promises good results to counteract sexually transmitted diseases or to fight the prevalence of ailments related to acute or chronic diseases that increase the loss healthy life years.

considerable impact on the reproductive health of the population

Following the same analysis for the decision-making process, the perinatal stage is necessarily considered a critical stage in the natural reproductive health history; this stage is related to the product, especially during the neonatal period. The high-risk new born experience a certain stage where the intervention of the health services has an essential role, using high-specialty medicine and the latest technology. All this leads to a number of reflections related to the medical ethics observed for this stage of the human being's life. Several works have been written on the subject of deciding whether a treatment to preserve the life of a new born should be interrupted or not.

The perinatal stage is considered a critical stage in the natural reproductive health history

This debate does not include important elements that affect the normative determinations of the efficiency of the neonatal intensive care. It is only now when the dilemma that has prevailed for several generations has disappeared: where the endemic presence of "life or death decisions" makes it clear that for ethical reasons, the possibility of making an analysis of the cost-benefit relation in the intensive care of the new born should be discarded. This analysis includes the hypothesis that the decision should be subject to the cost of the services and that the care of an individual must depend criteria related to the search of the social benefit. In any case there

Hypothesis: The decision is subject to the cost of the services or that the care of an individual must depend on the criteria related to the

search of the social benefit

are other elements involved in the decision-making process on the subject of the medical ethics and its relation with the epidemiology and planning of the health systems of the country. First of all, it is necessary to obtain objective information on the care given to the newborn and the services required for this purpose; second, it is necessary to discuss and conceptually agree on the nature of the benefit, cost, risk, resources and general impact of the action in the health of the individual, the family and the community, without neglecting the doctrinal ethical elements that should lead the medical exercise.

Impact on the care of the low-birth weight new born

The immediate perinatal period is the stage during which the actions must have a greater impact in order to attend the risks and reduce the damages, especially in the case of low-birth weight newborn babies

When we consider the child an important part of the trinomial in the reproductive health attention, we also infer that the immediate perinatal period is the stage during which the actions must have a greater impact in order to attend risks and reduce the damages, especially of the low-birth weight newborn babies. The result of the epidemiological studies executed until now on this group of newborns in Mexico are not enough to serve as a basis for the decision-making process, the planning and organization of services, the investment in infrastructure and equipment or for the selection of adequate technology for the attention of low-birth weight newborn.

The results of certain studies executed in other environments could be applicable to the Mexican experience because some socio-economic variables are similar to the national reality; likewise it could be assumed that the method and way to attend the morbidity among newborn babies is similar to the one reported in the specialized attention units of the

regional hospitals and medical centers that offer this type of services.

Considering the most important findings of the research executed in 1974 in the United States for the attention of the newborn with high-tech requirements, the following considerations on the needs and demands, supply and utilization, cost and effectiveness could be applied to our environment:

The following issues must be considered:
- **need and demand**
- **supply and utilization**
- **cost and effectiveness**

Concerning the conclusions reached by the study on the needs and demands it could be said that the low-weight incidence by the time of birth constitutes the most important sickness or death indicator during the first days of life and reflects the need of specialized care for the neonatal intensive care.

The low-weight incidence by the time of birth constitutes the most important sickness or death indicator during the first days of life

Even if between 1966 and 1983 a 15% decrease was registered in the incidence of low-weight new born babies, it is expected that the positive effect will be limited as a result of social variables such as the tobaccoism, socio-economic level, age of the mother, maternal nutrition and individual and family sanitary conditions, among others.

In the same country, 230,000 low-weight babies are born every year that, along with the 7% increase in the birth rate since 1975, leads us to the conclusion that there was an increase in the absolute number of children with less than 1500 grams of weight during the same period. These facts support the need of establishing enough high-tech units to fight the morbidity of this group of children.

In the United States of America, 230,000 low-weight babies are born every year

In terms of the supply and use of neonatal intensive care services, it could be considered that 6% of all the children born alive must be hospitalized in intensive care units, i.e. 200,000 cases per year,

Between 3.8 and 8.9% of all the newborn use neonatal intensive care services

between 3.8 and 8.9% of all the births. It is calculated that the hospitalization period goes from 8 to 18 days, an average of 13 days, based on the information collected during the above mentioned period in 600 American hospitals with neonatal units and 7500 beds, i.e. 2.3 bed for every 1,000 newborn alive.

The cost of the intensive service for the newborn fluctuates between US$1,800.00 and US$40,000 per patient

The cost of the neonatal services is similar to other high-specialty clinic or surgical services. Based on these studies, it was concluded that the cost of the intensive service for the newborn fluctuates between US$1,800.00 and US$40,000.00 per patient. In order to calculate the annual total costs of the services provided by these units, two alternative routes were established, even if both years showed similar resources. For the information published in 1978, the number of births in the year (3,300,000) was multiplied by the proportion of newborn hospitalized in high-tech units (0.06) and by the average cost per patient (US$8,000.00). The result was that US$1,584 was the total annual cost of the services provided during this year.

For the second alternative the number of beds (7,387) in hospitals with high-tech units for neonatal services was taken as reference. This figure was multiplied by the estimated occupation rate (0.90) and by the days of the year (365). The result was multiplied by the average cost per day (US$545.00), obtaining an annual cost of US$1,322 in 1978.

The total cost is higher for the children that survive than for those who do not survive

All this takes us to a the conclusion where the total cost is higher for newborns that survive than for those who do not survive. The same rule is applied to cases where the cost increases as the weight decreases. It was also confirmed that the total cost increases when there are complications such as the respiratory deficiency syndrome, kidney ailments,

congenital problems or alterations which can be solved with surgical procedures.

Concerning the effectiveness there are studies where the size of the samples do not allow to generalize and do not include the necessary variables to be considered as important elements in the behavior of the intensive care for the high-risk newborn. Combining the results of the available studies it is possible to conclude that the implementation of these services has allowed to increase the survival possibilities of the newborn, especially of those with the lowest birth weight. This premise confirms how the mortality among the low-birth weight new born has decreased in the course of time. It is not possible to reach any other conclusion because there are not specific studies on variables to determine the impact of other medical or socio-economic factors so to determine the exact contribution of each of them in the improvement of the vital statistics, strictly responsible of the high-tech service operation for these patients. Many low-birth weight newborns would have died without the support of the intensive services; however there are not enough studies to determine the number of survivors that live a normal life.

Many low-birth weigh newborn babies would have died without the support of the intensive services; however, there are not enough studies that allow to determine the number of survivors that live a normal life

It is important to emphasize the increase in the survival cases from 17 to 135 for every 1000 children born alive between 1960 and 1975. It is also important to mention during the period comprised by this study, there was an increase from 8 to 20 times the number of apparently normal babies survived, even if they weighed by the time of birth 1000 grams or less. However the number of cases with serious disabilities has also increased.

These experiences reflect the urgent need of taking decisions observing the integrating approach to

The decisions must observe the integrating approach that considers the

combination of results in the cost-benefit and cost-effectiveness analysis with the purpose of harmonizing the resources and measuring the impact of the actions, in a quantitative and qualitative holistic environment, reaffirming that the population must be the basis of the decision-making process

consider in every moment the combination of results in the cost-benefit and cost-effectiveness analysis, with the purpose of harmonizing the resources and measuring the impact of the actions in a holistic quantitative and qualitative environment, reaffirming the population must be the basis of the decision-making process.

The social value of the cost benefit

In the field of private investment, this analysis is aimed at studying alternative projects, where the main element is the expected utility, the same way the analysis endeavors to propose a measure that constitutes a reply for the people who take the decisions related to the alternative investment in the public sector. However, while the private investors can calculate their utilities deducting the cost from the sale value of their product, the public investment can rarely execute this type of analysis. Usually no cost is applied to the services provided or the products obtained through the reproductive health attention, because this is a responsibility of the State. In other circumstances some prices of the market can be modified in such a way that they reflect the restrictions result of the economic behavior.

The efforts made by the IMSS through vaccination campaigns and national vaccination days produce benefits-utility for the uninsured population as well

From another point of view it could be assumed that the execution of projects or reproductive health programs produces benefits not only for the insured population to which the intervention is directly applied but also for other sectors of the population. For example, the efforts made by the IMSS through the vaccination campaigns and national vaccination days produce benefits for the uninsured population as well. Likewise the actions of the family planning programs benefit all the population, as well as the actions aimed at improving the family and community

environment promoted by the social welfare programs of the IMSS-Solidarity Program. This shows the difficulty on putting a price to the services provided by the Institution for the collective benefit of the population. For this reason it is necessary to implement cost-benefit studies with the purpose of assessing the investment made by the State in the health of the beneficiaries.

As we have already mentioned, the investment made and its relation with the decision-making process to improve the health of the individuals produces long-term benefits. When the time factor is not defined, we talk about programs for the eradication of diseases, followed during several generations. However, the same contribution in money during different periods does not correspond to the same value; in other words money does not have the same purchasing value in the course of time. The value is modified not only by the course of time but also by the future depreciation speed of the same values.

The value is modified not only in the course of time, but also by the future depreciation speed of the same values

In order to compare the costs and the benefits related to time, the annual values are multiplied by a depreciation factor, as it is shown next:

$$(1+r)\ n$$

where "r" is the depreciation speed and "n" the time expressed in years. the result of the formula gives us the depreciation factor or the reduction of the annual value at present. In this way, the current value of the costs can be compared to the current value of the benefits, assessing the cost-benefit relation.

Independently from the exercises to be analyzed, the benefits of the health projects are measured through the prevalence of diseases, modifications in

The benefits of the health projects are measured through the prevalence of

diseases, as well as through the modifications in the morbidity or mortality patterns

the morbidity or mortality patterns and their impact on the socio-economic, demographic and environmental conditions of the population.

Usually no price is put to the health services or, when done so, the procedure is based on a distorted costing scheme that can not reflect the real value of the service. In order to express the benefits in quantitative terms, they could be considered as savings in the cost of the treatments, in the productive losses shown in the morbidity, mortality and vulnerability and in the productive losses result of premature deaths.

The part of the benefits that can not be translated into quantitative terms is the one related to the product of the pain reduction, disability and fear of death; these factors were called intangible

The part of the benefits that can not be translated into quantitative terms is the one related to the product of the pain reduction, disability and fear of death. Until then, these factors were called intangible even if they were considered important. Until the 70's, these factors were not considered economic, neither measurable, because the economists were just interested in measuring both, the satisfaction and the production of the required items. Based on these concepts, the cost-benefit analysis only included tangible benefits, and the intangible ones were considered additional benefits; therefore the studies executed for the reproductive health attention projects were not very objective for the decision-making process. However, if the projects proved to have a favorable relation in the tangible factors, the project was considered feasible and could be implemented.

These reflections on the method to evaluate the benefits have serious implications on the stratification of the population, where some groups such as the infant or aged population have limited or non-existent future profits. Since these groups do not belong to the productive labor (manpower), the depreciation

factor is rather high. This reflection involves a discrimination against the benefit projects aimed at this population, that has limited benefits. If saving lives and ameliorating pain are similar benefits part of the main objectives of the services provided by the health sector, then the method to select these projects is not the right one, because the method confers a relative value to these concept. This makes us think that this type of projects should not be implemented at a large scale.

For this reason it is necessary to find a method to select the best health investment, with the purpose of maximizing the payment translated into reduction of the morbidity and mortality and of establishing the best relation between the earnings and the costs through an adequate system for the selection of projects. This necessarily involves making an ordered exercise of the projects in terms of their cost-effectiveness and the analysis must be subject to certain criteria that consider the expenditure made to save a life or to increase the life expectancy.

A method that allows to select the best investment in health must be found whose main purpose is to maximize the payment converted into reduction of the morbidity and mortality and that, through an adequate system for the selection of projects, establishes the best relation between the earnings and the costs

The investment in reproductive health care and its transformation into social capital

There are several studies based on the cost-effectiveness analysis of alternative programs conceptualized under two criteria: deaths avoided through investment and savings per cost of the treatment, added to the earnings obtained from the losses through invested amount.

These methods involve certain difficulties when the health expense produces several benefits and its distribution varies according to the nature of the disease and the characteristics of the program. For example: we could say the arthritis is a chronic degenerative disease and not a mortal disease

itself; its attention involves a poor recuperation of the costs per avoided death, but the comparison becomes more considerable when it is analyzed in terms of investment in the earnings per avoided losses. This means until then, these studies had not considered the life saved and the healthy years lost by disability in quantitative terms. We could then think while the cost-benefit and cost-effectiveness analysis in the field of health are related to the execution of specific projects and programs, most of the budgets are allocated to multisectional services, representing a serious difficulty for these studies.

The value of the cost-benefit and cost-effectiveness studies does not lie only on the results of the formal analysis only, but also on promoting comparative attitudes with the purpose of selecting those projects that activate the recovery of the expense, result of some ailments related to certain family habits and customs

Considering the current "state of the art", it could be said the value of the cost-benefit and cost-effectiveness studies does not lie on the results of the formal analysis only, but also on promoting comparative attitudes, with the purpose of selecting those projects which activate the recovery of the expense, result of some ailments related to certain family habits and customs.

Many of these variables can be controlled by the individuals to a certain extent; some of them can hardly be controlled such as the existence of ailments induced by pathogenic agents with vague characteristics; some others can be controlled by the joint action of the individuals, such as some infections that can be prevented through the national vaccination days, preventive programs and actions aimed at certain ailments such as AIDS or cervical-uterine cancer; others can be controlled at individual level with exercise, dieting, hygienic habits, education, etc. Under the premise of individual control of variables, we could assume that the individuals are free to decide their preferences in the definition of health reserves and investment speed: these decisions will ultimately depend on the amount of time available, the way the time allocated to

The individuals are free to decide their preferences in the definition of health reserves and investment speed

productive work is administered and on the value conferred to working time.

After a certain age, the biological depreciation speed and, consequently, the health reserve are positively correlated to age; this underlies the idea that the maintenance of the health reserve increases. If all the other costs remained unchanged, the theory of the predictive demand will necessarily mean using less health reserve, i.e. it is presumed that once the gender, income and other variables are standardized, the population becomes older and, consequently, less healthy; independently from the irreversible deterioration, there is an additional health depreciation.

Once the gender, income and other variables are standardized, the population becomes older and, consequently, less healthy

When there is a better income two effects are identified: the first one involves increasing the value of the healthy time, because more goods and services are used; on the other hand, it is also inferred how the cost of time in the productive health function also increases. As a result, the value of the healthy time tends to promote the health investment, while the time cost of the productivity tends to depress it. Until now the time is not the only input in the functional health production; hence, the dominant effect is the value of healthy time if the other conditioning factors remain unchanged, while the benefits increase in terms of health investment costs. If the population involved in the reproductive health care behaves as in other circumstances, those with higher income must be more healthy, assuming that they will acquire more input related to the time investment in health promotion and prevention activities, because their cost per time unit is lower than the one invested in curative or rehabilitation actions and, as a result, they should suffer less diseases during their life.

Those with higher income must be more healthy, assuming that they will acquire more input related to the time investment in health promotion and prevention activities

The higher the education level of the population is, the better the health of the family

Generally, the higher the education level of the population is, the better the family health is under the following procedures: the beneficiaries with higher education levels are better informed and, therefore, more receptive to a better knowledge of the effects and consumption ways pernicious for health. Likewise, the direct effect operates in the productive function of health, increasing the efficiency where the health promotion and prevention inputs are combined. The last effect operates for the association between the education and the working time productivity. This combination increases the real income, at the same time, increases the demand to improve the health of the beneficiaries without necessarily involving a greater demand of reproductive health services.

The education and working time productivity increase the real income that, at the same time, increases the demand to improve the health level

The IMSS has executed cost-benefit studies on transmittable diseases, ailments that can be prevented through vaccination and chronic degenerative diseases, emphasizing the health problems that affect the life standard of the beneficiaries

There are serious attempts to establish cost-effectiveness exercises where the society interests are put before the individual efforts in the reproductive health of the beneficiaries, when it is necessary to prioritize the quality and coverage of the services. In this respect the IMSS has executed studies on transmittable diseases, ailments prevented through vaccination and chronic degenerative diseases, emphasizing the health problems that affect the life standard of the beneficiaries.

Concerning the prevention and control of diarrheic diseases during 1990/1994 and the investment in electrolytic solution, the quantification of health education actions and the training to women and health staff in the effective management of diarrhea in children younger than five, it was possible to reduce the mortality rate to 4,776 deaths. In accordance with these estimates, more than 14,000 hospitalizations for this cause in this age group were avoided. All this means that, according to the investment made in these issues and in the medical-

preventive programs, the IMSS saved $44.50 pesos in curative attention for each peso invested in prevention activities.

On the other hand if we analyze these figures under the infant health perspective, an annual average of 33.2 million vaccinations was applied during the same period 1990/1994 achieving in this way a considerable decrease in the morbidity for these preventable ailments, avoiding several hospitalizations and 190 thousand deaths. For each peso invested in preventive actions, the IMSS saved $1,286 in curative interventions.

During 1990/1994 an annual average of 33.2 million vaccinations was applied, achieving in this way a considerable decrease in the preventable diseases

Using the same elements of the cost-benefit analysis of women's health, we can make the mortality projection for cervical-uterine cancer for 2000: for each peso invested in preventive programs, the IMSS will save $1,779.00 in curative actions.

The mortality projection for cervical-uterine cancer for the year 2000 shows that for each peso invested in preventive programs, the IMSS will save $1,779.00 in curative actions

The reproductive health demand is a demand for investment of capital; these services are mainly based in two aspects: the natural usefulness of feeling well and the benefits obtained indirectly as a result of a growing amount of healthy time for productive use, both for the productive work (increase in the income) and for the unproductive activities (house work, leisure activities, etc.) These benefits generally increase the productivity of the individuals and their family, being able in this way to purchase goods and services, as well as utility sources. For example, we can suppose that the higher the income, the higher the possibility to purchase food, better housing and education is, improving in this way the life standard of the family members and their environment considerably.

Another cost-benefit study executed by the Regional Office for Latin America and the Caribbean of the

The cost-benefit analysis of the family planning program of

the IMSS considered, among other factors, the annualized costs of the contraceptive protection services, the annual estimates of unoccurred births, the estimates of the services that were not provided per year as a result of unoccurred abortions, as well as the estimate of the expense made per woman for pregnancy, delivery and post-delivery attention, abortion complications and attention to the newborn up to the first year of life.

Population Council of the IMSS in the field of reproductive health was the one related to the cost-benefit analysis of the Family Planning Program of the IMSS, that comprised the period from 1972 to 1985, published in 1986. This research included 5.3 million insured women in reproductive age living in urban areas (this sample corresponds to 28% the total number of women in the country in 1984). The method used for this study considered, among other aspects: the annualized costs of the contraceptive protection services provided, the annual estimates of unoccurred births, the estimates of the services that were not provided as a result of unoccurred abortions, as well as the estimates of the expense made per women for pregnancy, delivery and post-delivery attention, abortion complications and attention to the newborn until the first year of life.

It was concluded that the IMSS saved almost 9 pesos for each invested peso

This study reported a high relation between the benefit and the cots of the family planning program and that the investment in these services is profitable, based on the convincing results where it was concluded that, with a constant value since 1983, for each peso invested by the IMSS in this program in the urban areas from 1972 to 1984, the institution saved almost around 9 pesos.

Qualitative and quantitative estimates of the burden of disease

The efficiency can be considered in two terms: first, evaluating the different ways to achieve an objective where the selected one is the most convenient and less expensive; and second, comparing the different benefits obtained from a

The efficiency can be considered in two terms: first, evaluating the different ways to achieve an objective where the selected one is the most convenient and less expensive. This can be analyzed in a practical way when a program or service - either for the maternal, perinatal, infant or adolescent's health - is evaluated when all the consumers and suppliers and involved in the analysis.

Second: to compare different benefits obtained from a service with the same cost. Due to the fact that this approach can not be considered in bare economic terms, it is impossible to make judgments where dying at a certain age is compared to a minor ailment or disability that does not restrict the normal activity. Even so, if the cost and benefits could be quantitatively compared to the welfare of an individual, this would be one of the proposals to solve the pending questions.

service with the same cost

If the resources were allocated in a methodological way, i.e. obtaining the best benefits with the available resources, the indicators that measure the disability and death at different ages due to chronic problems or mental diseases should be analyzed from a different perspective than the one used for the analysis of the resources programmed for the reproductive health services. This leads us to approach the strategic planning based on community, family and individual risk factors and not to promote the isolated planning that follows the behavior of an organizational structure, without considering the elements that constitute the integrity of the institutional efforts in the health and social welfare concept.

The strategic planning must be approached based on community, family and individual risk factors and not to promote the isolated planning that follows the behavior of an organizational structure

The social values and the value of time in the burden of disease

There is no doubt according to these considerations, related to the elements essential to take a decision and part of the social values of the community, they could be expressed in qualitative and quantitative indicators in order to determine the real burden of disease. These social values are included in indicators characterized by the time lost for premature deaths, where the difference between the life expectancy assigned arbitrarily and the registered

The elements essential to take a decision part of the social values of the community can be expressed in qualitative and quantitative indicators in order to determine the real burden of disease

age of death is the potential duration of the life lost. This exercise does not allow to recover the losses of the aged groups.

There is another procedure based on the life expectancy of the population under study; this measuring strategy is undoubtedly more accurate than the previous one but it has problems of comparison with international cases because there is a paradoxical effect in the population with high mortality rates.

There are certain societies that confer the maximum value to the aged people; others allocate the highest value to the youngest children while measuring the burden of disease

The relative value of a year of life at a certain age is adjusted to an exponential function; as a result the value of a year increases extremely fast from the time of birth and up to the age of 25, after this it follows an asymptotic decrease towards zero

One of the most controversial social

Another version to consider measuring the time lost for premature deaths is the life expectancy by the time of birth in a determined population the reference factor. When this value is applied to the standardized mortality rates, it estimates the life expectancy in the following ages. It is characterized by a recovery of the time lost by the aged population, besides being an equitable indicator. Its denomination as value of one year of healthy life at different ages translates the specific value the human being confers to life, depending on the social, economic, cultural end economic aspects. For example: there are certain societies that confer the maximum value to the aged people; others allocate the highest value to the youngest children while measuring the burden of disease, where a year of life is extremely worthy. The relative value of one year of life at a certain age is adjusted to an exponential function; as a result the value of a year increases extremely fast from the time of birth and until the age of 25 and, after this, it follows an asymptotic decrease towards zero. During the first year of life, this indicator receives a very low evaluation, but the value of life by the time of birth is part of the value of all the years expected to be lived.

It can easily be observed as one of the most controversial social values part of these indicators is

the preference the societies express for the time factor, especially if it is clearly established the purpose to measure the time lost in future terms, due to a disease or ailment whose impact can be indefinitely extended as a result of a relapse, complication, or a physical, psychological, environmental or social sequel. On the other hand, any society agrees the social and economic benefits should be applied at present and not in future, especially when the value of the goods and services received is higher at present. These assumptions indicate if the value of the benefit was the same in both moments, the temporary preference could possibly continue being the same, the change in the selection would only be valid when the value was higher in future. These criteria are applied in the financial system for the administration of money "in future".

values part of these indicators is the preference that the societies express for the time factor

After clarifying all these concepts, we could establish the premise where the social value must be included in the health needs of the insured population; this premise involves the preference for updating the healthy life years that will be lost in future, considering the current values at a recommended discount rate of 3 to 10%; i.e. if the future losses are updated, the higher burden of disease, result of premature death, would be borne by the young adults and not only by the children younger than one or the newborn.

We could establish the premise that the social value must be included in the health needs of the insured population

If the future losses are updated, the higher burden of disease, result of premature death, would be borne by the young adults and not only by the children younger than one or the newborn

The complexity of the epidemiological panorama of the country makes essential to have integral indicators to evaluate the impact of the health actions more precisely in order to identify the burden the health lost represents for the current society. In accordance with these innovative concepts, the burden of disease not only limits itself to measure the consequences of death and origin disease, but includes the health alter that loosing welfare represents.

The burden of disease not only limits itself to measure the consequences of death and origin disease, but includes the health alter that loosing welfare represents

The methodology to be applied includes burden of disease indicators, due to their design, allow a better cost-benefit and cost-effectiveness analysis, ensuring in this way the establishment of more objective priorities not only involve quantitative variables but also qualitative aspects.

The method presents some problems: how to evaluate the life of people, how to correlate the morbidity with the mortality and considers that an effective intervention in a disease requires several simultaneous interventions in different diseases. Moreover, the method demands from us to know the effectiveness of all the possible intervention ways, their costs as well as the incidence of deaths and the morbidity cause-wise.

The Healthy Life Years Lost

The Healthy Life Years Lost (DALYs) include those lost due to premature deaths and disability

This indicator allows to evaluate the impact of different diseases in a determined society in time units, and has the advantage that offers a common measurement for the health losses for all the causes and ages

A research guideline -proposed by the World Bank and the World Health Organization- that computes the number of Healthy Life Years (DALYs) lost for premature deaths and disability, has been recently followed. This indicator allows to evaluate the impact of different diseases in a determined society in time units, and has the advantage that offers a common measurement for the health losses for all the causes and ages. In this way it is possible to compare, without phase out risk, the healthy life years lost due to diarrhea among children to the years lost for metabolic alterations among adults or for psychic ailments among young women.

With this integral approach, the DALYs allow to evaluate the health needs of a population, the effectiveness of the different interventions, to establish research or service priorities, to design

preventive programs and measure the technical efficiency in the production of the supplied services.

During several decades, it has been difficult to find a methodology and indicators to measure the health damages which do not end up in death and the time lost for premature death simultaneously. It was not until recent years when a research guideline was developed to establishes composed indicators that can measure both, the social effect of the disease and the one which causes death in early ages in an integral way.

One of the most outstanding developments is the one that endeavors to measure the health proportion recuperated after an intervention through a single indicator that combines the overlife increase and the health gain in terms of life quality. Long-lasting procedures that help to count with great accuracy the life years gained are used for this purpose. Other innovative indicators are the ones which measure the relative importance of the health problems counting the healthy life lost, always considering the time lived with disability.

For the study of the healthy life years lost for premature deaths in Mexico, the number of deaths registered in the country in 1991 was used, calculating the time lost due to premature mortality in seven age groups; the study reported 108 causes studied by gender. This study includes the life expectancy by age group as well as the value of the healthy years lived at different ages corrected by the exponential function and the 3% discount rate. The result obtained from this operation represents the healthy life years potentially lost for a determined cause.

For the study of the healthy life years lost for premature deaths in Mexico, the number of deaths registered in the country in 1991 was used, calculating the time lost due to premature mortality in seven age groups; the study reported 108 studied causes by gender

In order to study the healthy years lived with disability several essential factors must be considered, such

In order to calculate the healthy years lived with disability, the

same procedure as the one used for the healthy life years lost for premature death was followed, with the exception that the disability was multiplied by the burden of disability assigned to each disease

as: the incidence of the disease, the proportion of the insured population has the disease and ends in disability, the average age in which the ailment started and the duration and distribution of the disability in the different levels. If it is not possible to obtain these factors, then we can make estimates to include a determined disability condition. For the study of the country, several information sources were used such as the National Health Surveys, the registers of the System for Epidemiological Surveillance of the Ministry of Health and the Mexican Social Security Institute, among others. In order to calculate the healthy years lived with disability, the same procedure as the one used for healthy life years lost for premature death was followed, with the exception that the disability was multiplied by the burden of disability assigned to each disease.

Healthy Life Years Lost for premature death

With the purpose of describing the results of the national study on the healthy life years lost for premature death, it was necessary to analyze the information on the deaths occurred during the year under study; this involves an adjustment process of the figures due to important underregisters while analyzing the state figures. According to this study, there is an 8.6% global omission in Mexico, i.e. 38 thousand deaths are not registered in the statistics, especially in the rural areas and the population younger than one. One of the results of the analysis this mortality rate is its state regionalization, based on the death probabilities of the children younger than five and the adults between 15 and 59 years of age.

The state regionalization is based on the death probabilities of the children younger than 5 and the adults between 15 and 59 years of age

The mortality regionalization in

A. Advanced Transition: characterized by low infant and adult mortality (below the national average).

B. Medium Transition: identified as the stage where the infant mortality is low, but the adult mortality is high.

C. Incipient Transition: behavior distinguished by a medium infant mortality and a low adult mortality

D. Differential Remainder: this approach includes two characteristics, on one hand, the infant mortality is higher than the national average but lower than 75% and the adult mortality is also higher than the national average; on the other, this behavior is more common in the rural areas.

E. Extreme Remainder: a high infant and adult mortality, both over the national average

Mexico according to 1991 mortality rates created the following patterns:

A. Advanced transition
B. Medium transition
C. Incipient transition
D. Differential remainder
E. Extreme remainder

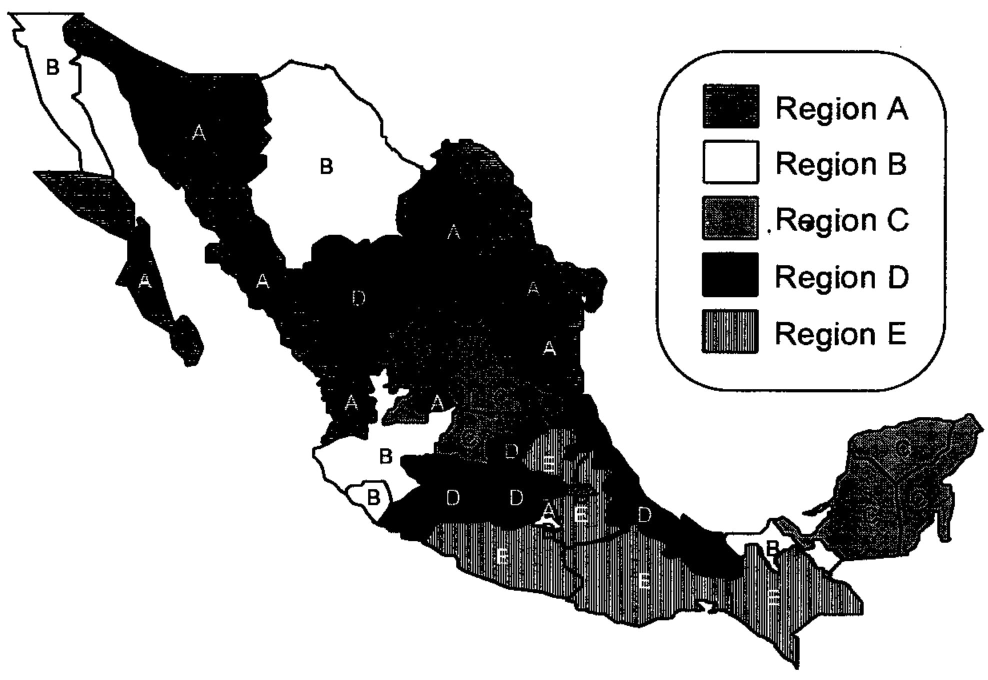


Figure VI.1 Mortality regionalization, Mexico, 1991

Considering the deaths registered in 1991, there were 446 thousand deaths, i.e. a loss of around 12.8 million years of healthy life, out of which 30% could have been avoided if they have not been exposed to more risks than the ones existing in countries with a consolidated market economy (PEMC); i.e. it could be assumed in Mexico around 93 thousand million children younger than five died in 1991. 75% of these deaths could have been avoided, i.e. 21 thousand deaths if they have been exposed to risks similar to the PEMC's. Two thirds of these excessive deaths took place in the rural areas and most of them corresponded to males. This considerations are shown in figure VI.2 that also shows that the young male adults hold the second position in the death rates, followed by women older than 60.

Two thirds of the excessive deaths in children younger than five took place in the rural areas and most of them corresponded to males

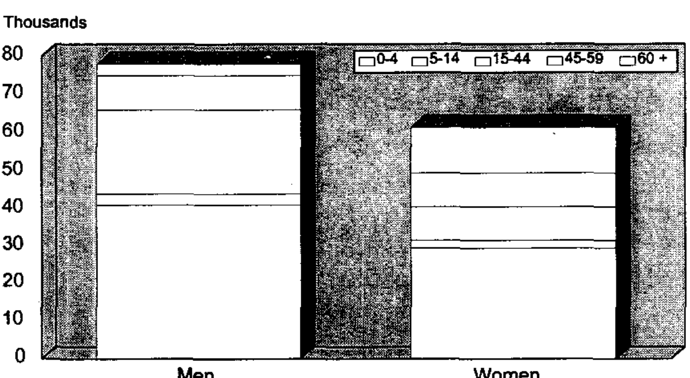


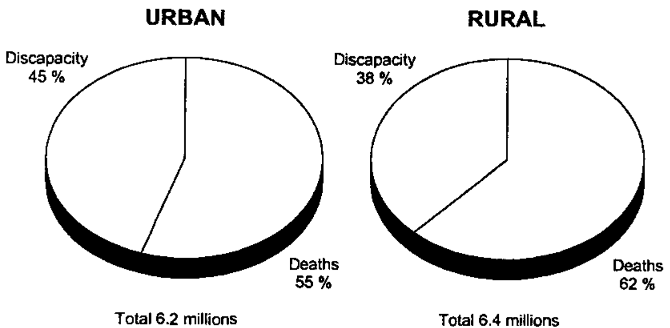
Figure VI.2 Excessive deaths in Mexico by age and gender compared to the PEMC

58% of the 12.8 million healthy life years lost in Mexico in 1991 were due to premature death and 42% to disability

58% of the 12.8 million healthy life years lost in Mexico in 1991 were due to premature death and 42% to disability.

When we approached this analysis according to the geographic distribution and characteristics of the population, we found the DALYs lost for premature death increased to 62% in the rural areas and decreased to 55% in the urban areas, as it is shown in figure VI.3. This confirms almost all over the world, the burden of disease in the poorest places is borne more by premature deaths, rather than by disability causes.

While analyzing the results by gender we found the male population tends to loose more DALYs years, regardless of their place of residence and age group.



In the poorest places, the burden of disease is borne more by premature deaths, rather than by disability causes

Figure VI.3 DALYs distribution by death and disability according to the place of residence, Mexico, 1991.

Three groups of predetermined causes have been established:

I. communicable diseases causes related to the nutrition and reproduction
II. non-transmittable ailments
III. accidental or intentional injuries

Three groups of predetermined causes have been established:

I. communicable diseases, as well as causes related to nutrition and reproduction

II. non-transmittable ailments

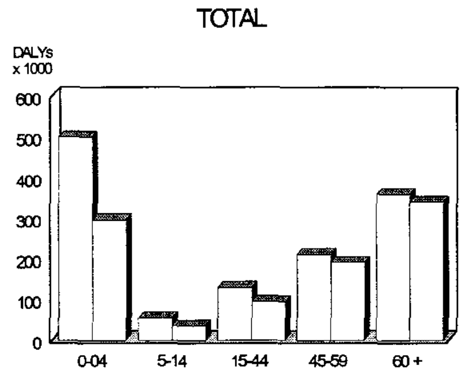
III. accidental and intentional injuries

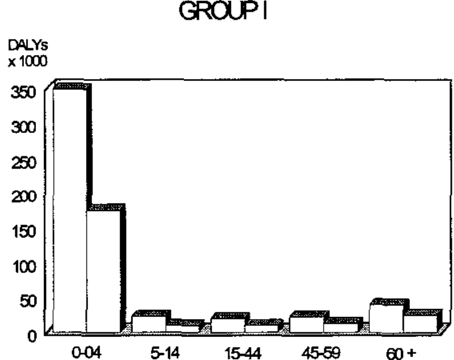
Among men there is a more homogenous distribution of the three groups of causes, while women tend more to the causes classified in groups I and II

If we combine this analysis with the three groups of predetermined causes, we find that among men there is a more homogenous distribution of the three groups of causes, while women tend more to the causes classified in groups I and II. The difference is more considerable in the causes included in group II, where for each DALYs lost by a women due to injuries, men lost four. On the contrary, the DALYs loss among men for the causes classified in groups I and II is 20% higher than among women.

The highest rate of DALYs lost by children younger than five was registered in the rural areas

While observing the distribution of the burden of disease by age group and region shown in figure VI.4, we note that the highest rate of DALYs lost by children younger than five was registered in the rural areas, and not in the urban areas where the infantile rate is not higher than the adults' rate. The age group that shows less losses is the one of children in school age. Each DALYs lost by these children is equivalent to eight DALYs among the children younger than five, to 2.5 among young adults, to 3.5 among mature adults and to 5 to 7 among the aged adults, either in the rural or the urban areas.





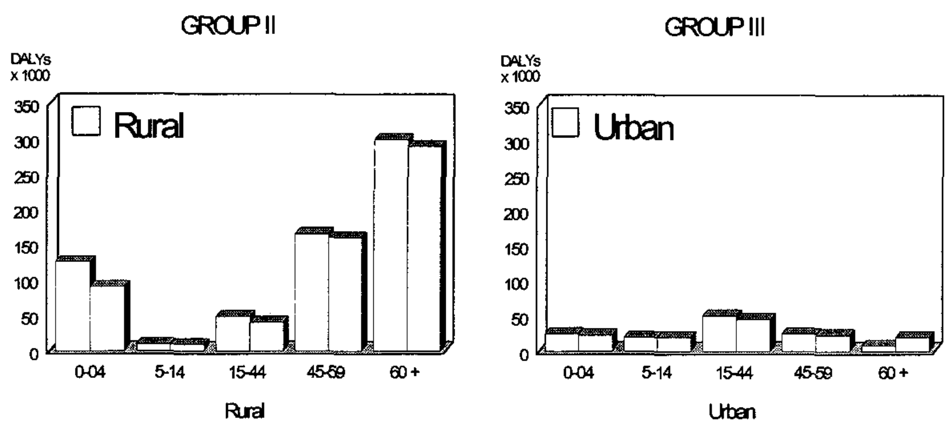


Figure VI.4 DALYs lost by age group and causes according to the size of the municipality, Mexico, 1991

When we observe the behavior of the DALYs lost by age group and disease causes, we can deduct that almost all the burden of the diseases classified in group I is borne by the children younger than five, especially by those who live in the rural areas.

Among the children younger than five, 4.2 million DALYs were lost in 1991, i.e. one third of the burden of disease of the country

In this age group, considered a priority for the national health actions, it is observed that 4.2 million DALYs were lost in 1991 by the age group of children younger than five, i.e. one third of the burden of disease of the country. When this behavior is compared to other countries like India or several African nations, it accounts for around 50%. In the PEMCs and former socialist countries, the participation of this age group in the DALYs lost is lower than 10%. While studying the Mexican figures

The states of Chiapas, Oaxaca, Guerrero, Tlaxcala and Zactecas contributed with 45% the burden of disease among the children younger than five

in detail it can be confirmed that the states of Chiapas, Oaxaca, Guerrero, Tlaxcala and Zacatecas contributed with 45% the burden of disease in children younger than five, such as in India and the African nations. Seen from another point of view, 55% of the DALYs lost by children younger than five corresponded to male children, in most of the cases due to premature death and only one fourth result of disability.

In Mexico 396 DALYs are lost for every thousand inhabitants younger than five, and the DALYs lost in rural areas are 1.7 higher than in the urban areas

In the rural areas, the diarrhea, respiratory infections and nutrition diseases account for 24% the total burden of disease among children younger than five, i.e. one of every four DALYs lost by this group is due to one of these causes

In accordance with the studies executed so far for 1991, it could be said 396 DALYs are lost for every thousand inhabitants younger than five, and the DALYs lost in rural areas are 1.7 higher than in the urban areas. 66% of the ailments are due to transmittable, reproductive and nutrition diseases, 27% to non-transmittable diseases and 7% to injuries. The incidence of infectious diseases in the rural areas is two times the one of the urban areas; i.e. it could be inferred the diarrhea, respiratory infections and nutrition diseases account for 24% the total burden of disease among children. One of every four DALYs lost by children younger than five is due to one of the three above mentioned causes, as it is shown in figure VI.1

Causes	*National*	*Rural*	*Urban*	*R/U*
Perinatal diseases	117.2	136.1	100.1	1.4
Congenital problems	53.7	53.0	54.3	1.0
Diarrhea	51.0	83.4	21.6	3.9
Respiratory infections	46.0	64.8	29.0	2.2
Nutrition diseases	22.4	24.7	20.3	1.2
Accidental injuries	71.0	92.7	71.9	
Others				

Table VI.1 DALYs lost by children younger than five by cause and size of the municipality, Mexico, 1991, 1000-rate

When we studied the DALYs lost by children in school age -from 5 to 14- we found that in 1991 one million DALYs were lost by this age group, i.e. 8% of all the burden of disease with male prevalence. Concerning the causes, it was observed the groups I and II are the ones cause a larger loss of DALYs by the children in school age.

One million DALYs were lost by the children in school age from 5 to 14, i.e. 8% of the total burden of the disease, with male prevalence

While analyzing the specific causes, we could note the injuries caused by motor vehicles are in the first position with 22% of the DALYs lost for this cause, the second place are the parasitism, with 20% and finally the diarrhea, with 6%. Under the premature death criterion, the causes are as follows: accidents caused by motor vehicles in first place, malignant tumors in second place, followed by choke, diarrhea and parasitism.

For this reason the last two causes are not a priority need because they do not represent a direct death cause.

If we modify the criterion towards disability, the parasitism would be in the first priority place, followed by the motor vehicle accidents, the epilepsy and the diarrhea. The malignant tumors would fall to the 20th place.

Considering the type of population and the geographical area we could conclude around 600 thousand DALYs are lost in the municipalities of less than 15 thousand inhabitants, unlike the more populated areas where only 460 thousand are lost. i.e. the excess of losses in the rural areas is 1.4 higher than in the urban areas (Table VI.2)

Around 600 thousand DALYs are lost in the rural municipalities of less than 15 thousand inhabitants, unlike the more populated areas where 460 thousand are lost, i.e. the excess of losses in the rural areas is 1.4 higher than in the urban areas among the population from 5 to 14 years of age

	Total	*Rural*	*Urban*	*R/U*
Accidents caused by motor vehicles	11.2	10.4	11.9	0.90
Knocked down	6.7	6.0	7.4	0.81
Car crashes	4.5	4.4	4.5	0.98
Helminthiasis	9.9	14.5	5.5	2.54
Acute diarrhea	2.1	3.3	0.9	3.52
Epilepsy	2.1	2.7	1.6	1.67
Asthma	1.4	1.6	1.2	1.29
Falls	1.3	1.3	1.2	1.10
Homicides	1.2	1.3	1.1	1.16
Anemia	1.2	1.4	0.9	0.97
Leukemia	0.9	0.9	0.9	0.97
Pneumonia	0.9	1.2	0.7	1.66

Table VI.2 Main causes of DALYs lost by the population between 5 and 14 years of age by gender, Mexico, 1991.

The risk of loosing one DALYs in region E among the population between 5 and 14 years of age is two times the one registered in region A

It is important to point out the behavior of the DALYs lost by the population between 5 and 14 years of age with variation in the five pre-established regions. The risk of loosing an DALYs in region E is two times the one registered in region A. This difference could be due to the pathology included in group I, as it is shown in figure VI.5.

The behavior of the DALYs lost by women in procreation age is essential for the reproductive health, because it accounts for around 10% the national burden of disease

The behavior of the DALYs lost by women in procreation age is essential for the reproductive health, because it accounts for around 10% the national burden of disease with a higher incidence in the rural areas. It corresponds to 45% for premature death and 55% for disability.

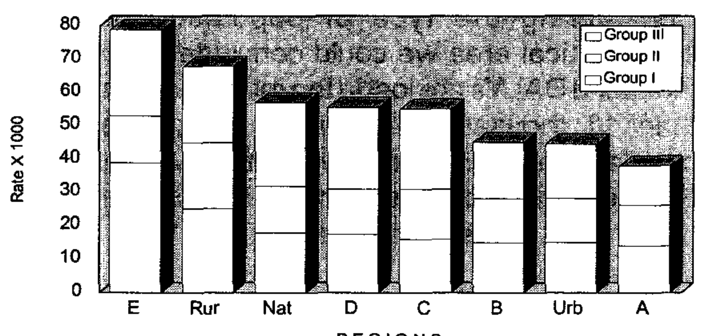


Figure VI.5 DALYs lost by the population between 5 and 14 years of by for group of causes and region, Mexico, 1991.

The diseases which contributed the most to the burden of disease are the ones included in group II or non-transmittable diseases. The accidental injuries are in the first place.

Retaking the analysis from the point of view of the area of residence, it was concluded in the urban areas 56 DALYs are registered for every 1000 women in procreation age, while in the rural areas 83 DALYs are registered; apart from this behavior there are other important aspects which alter the extent of the DALYs, depending on the size of the municipality and where the rural/urban ratio is also modified by the cause of the disease.

Concerning the specific ailments of this priority group, the first places in the rural areas are the infections and parasitism, the fifth place in urban areas. On the contrary, the rural areas are less affected by sexually transmitted diseases, diarrhea and tuberculosis.

In general terms the DALYs index for every 1000 women is 1.5 higher in the rural areas than in the urban ones; especially, the risk of loosing one year of healthy life for infection or nutrition disease is three times higher for the women who live in rural areas, as it is shown in table VI.3

The DALYs index for every 1000 women is 1.5 higher in the rural areas than in the urban ones; especially the risk of loosing one year of healthy life for infection or nutrition disease is three times higher for the women who live in rural areas

	National	*Rural*	*Urban*	*R/U*
Infections and parasitism	7.3	12.1	4.3	2.91
Accidental injuries	10.	10.1	10.5	0.97
Neuro-psychiatric diseases	8.5	10.4	7.4	1.40
Cardiovascular diseases	7.0	9.4	5.5	1.70
Malignant tumors	6.1	6.6	5.8	1.13
Diseases of the digestive system	4.5	6.1	3.7	1.65
Nutrition diseases	3.2	5.5	1.7	3.23
Maternal diseases	3.2	5.3	1.9	2.80
Total	66.4	83.2	56.1	1.48

Table VI.3 DALYs lost by women in procreation age by cause and according to the size of the municipality

The DALYs lost by women in procreation age represent around 10% the national burden of disease

In order to illustrate the results of the DALYs, considering as starting point the research executed in the country and as source of information the official report of the Mexican health institutions, it could be concluded the DALYs lost by women in procreation age represent around 10% the total national burden of disease. 45% of this total figure correspond to premature deaths and 55% to disability. As expected, the burden of disease is borne more by the rural areas rather than by the urban areas. 80 DALYs are lost for every thousand women in procreation age in the rural areas, unlike the urban areas, where only 55 are lost.

The urban women tend to loose more DALYs for preeclampsia-eclampsia and abortions, while the rural women present more losses for hemorrhages and puerperal infections

Concerning the DALYs lost for maternity diseases, there is not enough information; however, it is calculated that between 2 and 6 DALYs are lost for very thousand women in procreation age, depending on the region. It is important to point out the urban women tend to loose DALYs for preeclampsia-eclampsia and abortions, while the rural women present more losses for hemorrhages and puerperal infections.

As we all know, according to the reports provided by the attention units of the IMSS and other health institutions in Mexico, most of the deaths due to perinatal complications occur during the first week after delivery, half of them during the first day and the rest during the following six days of extrauterine life with a decreasing trend. The main causes of death within the group of perinatal complications are: the diseases related to the mother (high blood pressure, infections, traumatisms, etc.) the problems associated to pregnancy and delivery (prematurity, placenta previa, dystocial delivery, etc.) and the neonatal pathology (respiratory deficiency syndrome, asphyxia and congenital malformations).

The result of these studies show the perinatal complications caused a loss of 1.25 million DALYs, i.e. 10% the national total and 30% the total number of DALYs lost by the population younger than five. The losses for perinatal complications in the areas with epidemiological remainder are two times the ones registered in the low mortality regions.

The perinatal complications caused a loss of 1.25 million DALYs, i.e. 10% the national total and 30% the total lost by the population younger than five

The evaluation, decisive procedure in the decision-making process

The evaluation of the Coordination programs is executed considering four components: the structure, the processes, the achievements and the impacts, using the qualitative and quantitative approach of the burden of disease.

With the purpose of introducing the reader into a prospective exercise, we could emphasize the impact of the reproductive health attention goes far beyond the calculation and publication of figures and their reflection in the comparative exercises; it is a series of interventions in the risk attention, damage repair and improvement of the individual, family and social disability. This attention must be made up of integral approaches to give an equitable reply to the demands and needs of the insured priority population, actions which along with the social values and especially with the value conferred to the healthy time, have a positive impact on the indicators of the burden of disease such as the Healthy Life Years (DALYs) lost for premature death or disability.

The orientation of the analytical processes based on the qualitative and quantitative aspects of the reproductive health identifies inputs that accumulate an individual and social capital, related to the life standard of its components. This social remuneration is achieved through actions aimed at women in their

The orientation of the analytical processes based on the qualitative and quantitative aspects of the reproductive health identifies inputs that accumulate an

individual and social capital, related to the life standard of its components

maternal and post-reproductive stages, at men in their role as fathers and at children during the different periods of their life, as the members who consolidate the trinomial concepts and towards which all the individual, family and collective welfare interventions are aimed.

The individual and collective values which participate in the care of the population and the organization of the services and programs designed for the trinomial, must be judged, and therefore, undergo an intellectual exercise so to considers all the elements executed by those who establish a policy, follow an instruction or plan a program, by the experts who operate a service, by the specialists that execute the studies to allocate the necessary resources and by those responsible of processing the reproductive health information.

Without neglecting the doctrinal ethical elements that lead the quality of the medical attention and its implications in the health of the individual, the family and the community, we must promote studies that measure the impact of the actions through the analysis of the costs related to the benefit obtained for the population and the effectiveness of the actions in the welfare of the trinomial

Without neglecting the doctrinal ethical elements that lead the quality of the medical attention and its implications in the health of the individual, the family and the community, we must promote studies to measure the impact of the actions through the analysis of the costs related to the benefit obtained for the population and the effectiveness of the actions in the welfare of the trinomial, applying the methodology to compare the present value of the costs of services or interventions to a present value of the benefits.

The demand to improve the reproductive health of the trinomial is also a demand to invest capital

The demand to improve the reproductive health care of the trinomial is also a demand to invest capital evaluated by the population in such a way the benefits are interpreted both, by the natural utility of feeling oneself healthy and by the obtainment of a growing amount of healthy time to be used in a productive way. This means in the evaluation exercise executed by all the levels of the

Coordination, the results of the studies and analysis of the cost-benefit and effectiveness of the different methods applied in the daily work of the reproductive health care must be one of the elements to be considered in order to take adequate central, regional, delegation and local decisions at institutional level.

The evaluation of the daily work of the reproductive health must be one of the elements to be considered in order to take adequate decisions

It is not enough to define concepts or describe the objectives or procedures in detail; neither is it enough to observe the ethical aspects of the exercise, nor to allocate the budgeted resources efficiently, if there does not exist a culture to follow a practice designed with method and technique and permanently executed for the critical analysis of the reproductive health actions.

This challenge involves to support a change of attitude among those in charge of executing the programs, providing technical counseling, operating the service, supervising the internal and external actions or analyzing the information result of the concepts expressed to improve the welfare of the insured population.

This challenge involves supporting a change of attitude among those in charge of seeking the reproductive health to improve the welfare of the insured population

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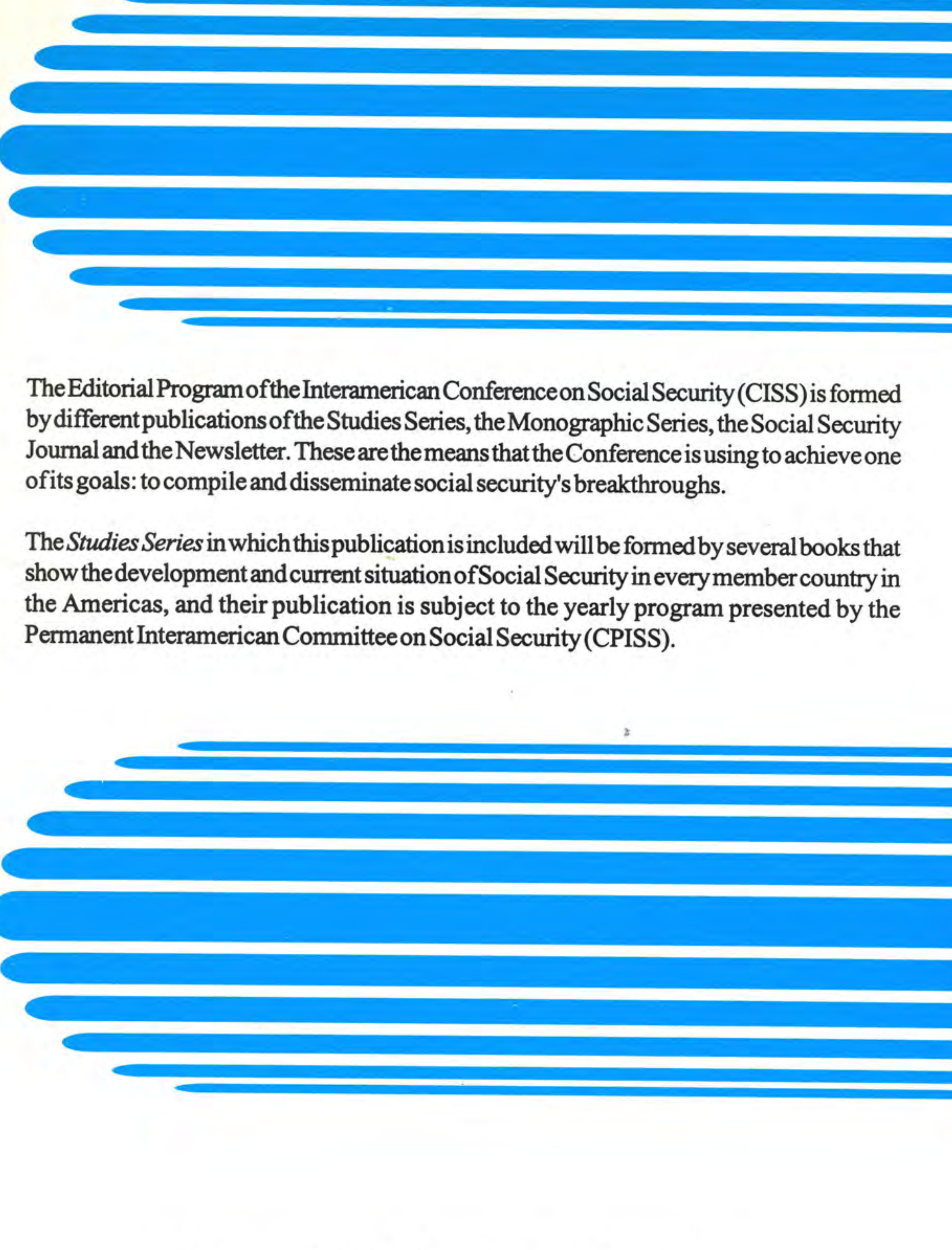

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