

TOWARDS IMPROVED M & E OF HIV PREVENTION, AIDS CARE AND STD CONTROL PROGRAMS

COUNTRY CASE STUDY

MEXICO

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The main objective of this study is to review the M&E practices of the National Program for HIV prevention, AIDS care and STD control for the purpose of understanding the progression of m&e efforts, assessing their current status and identifying ways to strengthen them in the future.

1. Introduction

According to the initial patterns of distribution of the HIV epidemic in the world, Mexico was classified as within the I/II pattern, that is, it shared characteristics with pattern I epidemics (seen in Western Europe and the United States where transmission occurred through male having sex with males practices) and pattern II ones (seen in Central Africa and the non-Latin Caribbean through transmission by blood transfusion and heterosexual transmission). At its onset, the AIDS epidemic configuration in Mexico resembled that of the United States regarding sexual transmission mainly through male having sex with males although transmission related to intravenous drug use was much lower while transmission associated to blood transfusion was higher. The first AIDS case in Mexico was diagnosed in 1983. From that point on the number of cases increased continuously presenting three types of trends: through the end of 1986 growth was slow, from 1987 to 1990 growth became exponential and from 1991 to the present, growth has become dampened moderate with a tendency towards stabilization.

A first monitoring strategy, epidemiological surveillance, was initiated in 1983 in accordance with international criteria and as diagnostic resources became available. In 1986 monitoring through sentinel survey sites was added in at risk populations. However the main intervention strategy was controlling transmission by blood transfusions starting also in 1986. Control was attained by establishing national norms and guidelines for blood transfusion that consisted of: barring the sale of blood, universal screening of blood units before use and mandatory HIV testing of potential donors. Blood and hemoderivatives transmission reached a peak level of 17% of all AIDS cases in 1989. This 9 year long intervention has reduced the rate to 2.7% of all cases of AIDS through blood transfusion in 1998.

At present, in the major cities transmission is predominantly among male who has sex with males. In the Northwest part of the country, transmission through injecting drug use is acquiring relevance. Although the slow growth in the metropolitan areas and the Northern border, shows an urban growth pattern (duplication period of 16 months) this is different from that seen in the Pacific, Center and South where there is accelerated growth (rural growth pattern). Two key concerns about HIV/AIDS in Mexico are the ruralization of the epidemic (duplication period of 8 months) and that there is a larger proportion of heterosexually transmitted cases among all women. (**Tables 1, 2, 3; figure 1**).

2. Historical Context of the HIV Prevention, AIDS Care and STD Control Programs

In order to understand the development of HIV prevention AIDS care and STD control programs in Mexico, it is necessary to briefly review the sociopolitical, economic, scientific, and cultural contexts in which the AIDS epidemic appeared and the main actions taken to cope with it. Except for the National Health System, which requires a somewhat more detailed review, the other contexts and their eventual interaction with each other vis-a-vis HIV/AIDS will be described here in 6 year segments using a broad time frame of 17 years, from the point the first case was reported through the year 2000 to include the strategic planning and outcomes that the program has set for that point in time.

These time periods attempt to describe the phases of development, not of the epidemic or the national program only, but of institutional and societal awareness, problem recognition and implemented response.

2.1 Incipient phase

During the first 6 years (1982-1988) of the AIDS epidemic, Mexico, not unlike other developing countries, encountered many structural and cultural difficulties in getting a response in motion. Structurally, neither the governmental instances nor civil society at large had the knowledge and organization to attack the epidemic. Culturally, the epidemic was seen as a “well deserved punishment for those leading dissolute lives” i.e. homosexuals, prostitutes and promiscuous men. Misinformation existed everywhere; only the naturally intense interest by NGO gay groups mostly in Mexico City and Tijuana, an important border point with the United States produced, since 1983, the first non-official social response through media campaigns and public manifestos directed to the health system to address the disease. In 1985 the scientific community, specifically the epidemiological sector got involved with the main goal of obtaining information about the distribution and frequency of AIDS cases. In 1985, monitoring of transmission by blood transfusion led to seroprevalence surveys. These evolved into the sentinel surveillance system to also determine risk factors and incidence in specific target population groups. A National seroprevalence study was done in 1987. Establishing the VIH/AIDS national epidemiological registry at the National Direction of Epidemiology in 1986 and instituting a national network of detection labs in 1987 were the next two-m&e strategies.

Although there have been STD control programs since the mid 1940's addressing the classic STD's (syphilis, gonorrhea and congenital syphilis, chancroid and venereal lymphogranuloma), since the inception of penicillin they stopped being considered important or interesting. The presence of strong taboos and social and professional prejudices led to very little epidemiological knowledge, due to under reporting and except in death certificates no desegregation of data by sex ever as well as other variables frequently. Within these limitations between the 1970-1996 period there appeared to be a stable pattern in the first decade, followed by a decreasing trend in the next decade of the classic STD's and an ascending trend of the new generation ones (genital herpes, trichomoniasis, candidiasis and hepatitis B). In 1984 the plans and programmes in Mexico for the control of classic STD, were coordinated by the General Direction for Preventive Medicine and in 1986 the official norm was set for the prevention of acquired and congenital syphilis, gonorrhea, chancroid, venereal lymphogranuloma and unspecified urethritis (**Table 4**)

In 1986 the Mexican government created the National Committee for AIDS Prevention (CONASIDA) which was established within the Health Ministry with the purpose of evaluating the national situation concerning the HIV infection and AIDS and to establish norms and criteria for diagnosis, treatment, prevention and control. However, the initial reluctance on the part of the government to face the reality of the epidemic placed CONASIDA, which was defined as a normative organism, in a position of providing services such as HIV testing, producing information materials and giving information, counseling and ambulatory care to the population affected. Besides this, its very small staff and cadre of volunteers organized and conducted training workshops for medical and allied health science personnel. Between 1987-1988 this effort evolved into the creation of two of its three information and assistance centers located in Mexico City, publication of a monthly epidemiological bulletin “Boletín Mensual SIDA/ETS”, the first TV campaign, setting up technical committees, holding the first national congress on AIDS and the Regional Center for exchange of information, documentation and information on AIDS (CRIDIS) was created to allow for international networking opportunities.

2.2 Emergent phase

During the following six years (1988-1994), the program was seen more as an NGO than as part of the health sector. Given such perception and its scarce resources, both human and financial, the program operated in a constant reactive mode barely being capable to respond to the huge demands, especially for information, generated by the general population's reaction to the epidemic. An information call-in line was established, TELSIDA, which has been in operation ever since and grown exponentially (in 1988 it received 4,800 calls - in 1994 it received 86,400 calls). In 1988 a Presidential Decree was issued changing the legal

identity of the National Committee to the National Council for the Prevention and Control of AIDS (CONASIDA).

Some federal resources were appropriated for the National Council although most of its activities were conducted with international funds, mainly from the WHO's World AIDS Programme. There were attempts to reproduce the CONASIDA Information and Attention Center model in 10 States, successfully in some cases, not in others. Towards the end of 1989, the First Mid -Term National Program was developed for the period 1990-1994, in accordance with the WHO's Global AIDS Programme.

In 1992 the Department for the Prevention and Control of STD was moved to the Under Secretariat for Leprosy and STD and, trichomoniasis, urogenital candidiasis and hepatitis B were included for mandatory reporting. In 1993 the Plan for the Elimination of Congenital Syphilis was started, supervision intensified and priority given to States with the largest number of CS and the highest incidence of classic STD cases. Activities had been mostly diagnostic in cases discovered spontaneously in health units and treatment where available.

2.3 Established Priority phase

In the present period (1994-2000), after two one-year trial program plans, the 1996-2000 plan was developed and set in motion. Although CONASIDA federal funding was increased in 1994 to cover operational expenses, in 1997 with a more substantial economic base for programmatic purposes, it became a desegregated unit still within the Health Ministry yet with more legal and programmatic autonomy. The process of CONASIDA becoming a desegregated organism coincided with the decentralization and reform of the National Health Sector in 1994. Of outmost importance, was the fact that **VIH/AIDS was declared as one of the 11 national priority health issues?** As the epidemic pattern changed, the State based and managed VIH/AIDS prevention and control programmes (COESIDAS), which had began working in 1986 more as an informal network that depended on CONASIDA for advise and training and had shown uneven efficiency and growth, were focused on, especially to try m&e approaches to HIV prevention, AIDS care and STD control programs.

In 1994 the syndromic approach to STD treatment was adopted and acuminated condiloma , genital herpes, urethritis and cervico-uterine cancer were included in the Official Norm Project of Epidemiological Surveillance. Likewise the anti-hepatitis B vaccine was included in the Official Norm Project for the Prevention, Elimination and Eradication of illnesses preventable by vaccination. Some of the other new generation STIs such as clamydhia and the human papiloma virus have so far not been included either for reporting, prevention or control purposes. In 1997, as a result of the mounting evidence of the STD/HIV linkage, the Health Ministry incorporated the STD program into CONASIDA given the correlation between the two programs ´ objectives.

3. Monitoring and Evaluation of Input and Output Indicators in interaction with Contextual Factors

In order to understand the progression of m&e of HIV prevention, AIDS care and STD control programs in Mexico, to see what new m&e challenges Mexico is facing and how it is handling the old or initial ones, a brief review of the first programmatic external evaluation conducted in 1994 follows. This was the first comprehensive attempt to evaluate the program ´s impact and process and although limited, provides a good baseline from which to start. It is not in the purview of the present country case study to restate the 1994 report content, yet some things are worth noting.

In preparation for the external evaluation of the National Mid-Term Program by an international committee, CONASIDA assembled a report tracing its main lines of action, strategies and accomplishments during that period (1990-1994) in cooperation with its epidemiological committee (researchers based at the National Institute of Epidemiological Diagnosis and Reference, INDRE, and the National Institute of Public Health, INSP), its Mexico-based international AIDS organization partner (WHO/PAHO), and two NGO's.

The report consisted of five sections with the first three being the core of the report:

a) a timeline summary of services and activities, b) an epidemiological report of AIDS in Mexico between 1985-1994, c) a process indicator analysis on international funding describing financing obtained and

mobilized on behalf of government, NGO's and the scientific community, their utilization and further needs identified, d) two articles by NGO's, one on the Government-NGO linkage and the other on the NGO work on HIV/AIDS, and e) two research papers, one on blood transfusion prevention interventions and the other on preventive interventions for adolescents.

The Mid-Term Plan objectives were: 1) to prevent sexual, blood-related and perinatal transmission of HIV/AIDS, 2) to reduce individual and social impact of HIV/AIDS, 3) to mobilize and unite national efforts on behalf of the fight against HIV/AIDS, 4) to promote and conduct epidemiological, biomedical and psychosocial research.

Although both the objectives and their strategies were stated in a broad, general manner, the timeline review provided, in a narrative form, considerable process information about activities implemented. For the purposes of this study it is presented in an input/output framework (**Table 5**).

b) The epidemiological surveillance section provided a baseline study of the epidemic since its start and also reported on some behavioral studies attempted jointly with NIPH. It listed 8 intervention evaluation studies. Of these, the 3 that pertained to clinical research were deemed very successful while the other 5, in the behavioral areas, were labeled positive but not satisfactory. The most interesting example was an 1989 evaluation of an education campaign launched in 1987, with a before-after KAP survey design where "an important achievement in knowledge" was described as the only significant finding.

c) The process indicator analysis on international funding described funds obtained for the 1990-1994 period: 8 projects for CONASIDA funded by the Rockefeller Foundation, Harvard U, WHO, NIH-Population Council, projects mostly linked to research for USD 1,271,188. For NGO's it listed 13 projects to assist 22 organizations (11 central, 11 peripheral) funded by the WHO-Partnership Program and the WHO technical cooperation program for USD 664,276. For the academic community it listed 6 projects for the INSP for USD 400,693 and 16 projects for INDRE for USD 1,117,819 from the same sources as CONASIDA's.

It is important to note that at the time of this evaluation and the designation of CONASIDA as a desegregated organism within the Health Ministry, the Mexican government assumed as priority the task of obtaining Federal funds to operate the program and, to only seek external funding for specific projects (pilot projects for intervention and research).

The most relevant 1994 evaluation conclusions and recommendations were: 1) that an important overall baseline had been set, 2) that three main prevention strategies needed to be pursued: promoting the use of condoms, the reduction of sexual partners and especially the control of STIs which had not been considered priority due to low mortality rates, being seen as curable, of little interest and unrelated to HIV/AIDS vulnerability, especially in women, 3) that regardless of the activities/interventions, incidence raised during the period of study because of the disease incubation time and that it would take some years to see prevention effects and results, probably somewhere in the mid-term, 4) that adequate methodology was indispensable to M&E outcomes and impact.

Between 1995 - 1996 on the basis of this evaluation, the experience acquired, the allocation of federal funds for program operation and that **VIH/AIDS was declared as one of the 11 national priority health issues**, CONASIDA was able to pay more attention to its m&e, even though the emphasis still leaned towards process input/output evaluation as can be seen in **Table 6**. The National System and Manual of Epidemiological Surveillance was updated, CONASIDA instituted its own Research Department and as a result of the mounting evidence of the STD/HIV linkage, the Health Ministry approved initiating the transfer of the STD program into CONASIDA given the correlation between the two programs' objectives. However the most fundamental benchmark for CONASIDA insofar as M&E is concerned was the official start of the National Development Program also in 1995.

3.1 The National Development Plan 1995-2000

Since 1995 when this initiative started, although full of the difficulties inherent in the change over from almost absolute centralism to a real decentralization and the naturally arduous and lengthy learning curve all States have faced as more and more of the responsibilities are transferred to them, a gradual and positive change is in the making. As part of the PND the emergence of the National Program to Modernize Public Administration and the Ministry of Health 's Integral Supervision Plan, are of special interest.

Briefly, the 1995-2000 National Program to Modernize Public Administration (PROMAP), has as its stated mission to reorient the focus of governmental institutions M&E to results instead of activities. For this purpose the Program proposes the revision of institutional goals and their strategic objectives through an outcome indicator system that will enable all public entities to know to what degree they are achieving objectives and what is the impact of the selected strategies. Its emphasis is on ongoing and in-depth training and updating of all levels of public employees on strategic planning, management and /or supervision and delivery and evaluation of public services. The evaluation is designed to provide feedback per semester for program adjustment as can be seen in **annex 1**.

3.2 The National Health System

As with the rest of the governmental structures the configuration of the National Health System was for a long time centralized and segmented. Since the 1940's when the Ministry of Health (SSA) and the National Institute for Social Security (IMSS) were created, health services became available to populations insured by their employers or whose health care the government financed. A similar system to that of the IMSS, specifically to tend to state workers health needs was created in 1959 (ISSTE).

The Health sector is structured horizontally by the difference between salaried and unsalaried populations. Formal sector workers, whether in the private or public sector are called 'socially insured' and have the right to services according to their workplace affiliation, while the 'open population' is uninsured and depends on health and medical coverage programs financed by the government, such as those provided by the SSA and other social assistance institutions. Within the Mexican health model, private and public medical services coexist. The private market has developed outside the margin of official public policies, providing attention to socially insured and open populations, both at market rate fees. Private medical insurance constitutes a very minor source of financing health and medical services. Except for 3 million Mexicans approximately, the other 89 million are affiliated to or depend on the public health sector for health care. As a vertical structure, the social security system is divided into three levels of services: family medicine units (first level), general hospitals (second level) and specialty hospitals (third level). Only the second and third level institutions provide in-patient care. All is free in these hospitals including lab and image studies and medications. In order for a medication be given at these institutions it must be listed in the Medications Basic List or in the Medication Catalogue.

In the case of institutions that provide services to the open population, their hierarchy consists also of three levels: rural health centers (first) which belong to sanitary jurisdictions made up of several municipalities, general regional hospitals (second) located in the capital city of the State and very specialized hospitals (level 3) such as the National Institutes of Health (SSA) which are mostly located in the Mexico City area. These clinics and hospitals usually have a somewhat limited supply of medicines, which they buy and sell at a discount only charging a recovery fee to the patients that is highly subsidized.

During the time of high centralization, all decisions, resources and programs followed a very strict hierarchical process. This resulted in severe lack of intra and inter-sectorial communication, absence of supplies and resources, duplication of efforts, overall poor, inadequate or no information to first level service providers and scattered M&E efforts, which mostly went ignored. The decentralization initiative seeks the transference of decision- making faculties, resource management and program operation to the State based health sector and y more direct community involvement as a result.

The Ministry of Health 's Integral Supervision Plan is a central piece of the decentralization and reform of the health sector. The essence of the integral supervision plan is to develop a cohesive mechanism where integration and correspondence of actions result in an adequate operation of the substantive programs relevant to the eleven health priority areas (reproductive health, child health, adult and older persons health, vector transmitted illnesses, zoonosis, micobacteriosis, cholera, epidemiological emergencies and disasters, HIV/AIDS and STD, addictions and oral hygiene). As a working tool it allows for a situational diagnosis of the prevention and control programs, so decision-makers can correct deviations of set objectives for planned impacts. The HISP is therefore expected to strengthen the State technical capabilities regarding an M&E system of input/output, process/outcome, cost-benefit and impact indicators.

The Integral Supervision Plan methodology involves active participation of representatives from the eleven priority programs. The team leader in the supervision inspections visits rotates by State depending on the priority area considered the most important health problem in that State. There is a supervision format designed by the responsible areas for each program at national level and field of supervision groups the variables of interest. The results of the supervision review are recorded in a format as attainment ratios rendering the measures in terms of a gap per each supervision field and level supervised according to the program, the strategic plan and existing support mechanisms at State, Jurisdiction, second level and first level care sites. A global result is derived and expressed as a mathematical mean. In order to detect knowledge and acceptance, a statistically representative population survey is conducted for the reproductive health, child health and HIV prevention, AIDS care and STD control programs. The results of the population survey are incorporated into the findings of and recommendations for the programs.

In 1997, CONASIDA and all COESIDAS began participating in the National Program to Modernize Public Administration and the Ministry of Health 's Integral Supervision Plan. The inclusion of CONASIDA in these national efforts has demanded a great deal of preparation for the program's staff since it involves extensive training to learn the results-oriented evaluation system of both plans and accurately build on those frameworks and reporting instruments their own objectives, goals, strategies and activities using the WHO M&E model of input/output, process/outcome, cost-benefit and impact/prevention indicators. In 1998 CONASIDA developed a very comprehensive Planning Guide for the Design and Operation of Prevention and Control of HIV/STD Programs and set up an internal work group to follow result indicators as reported through PROMAP and HISP as can be seen in **annexes 2 & 3**.

These two systems, although promising towards achieving a commonly agreed upon M&E framework and set of indicators, comparable intra-nationally and perhaps even internationally, are of such recent inception that there is data from the first semester of 1998 only, much of it in need of analysis as can be seen in **Table 7**. Not all aspects of interest to this evaluation have been generated yet. However in terms of systematic outcome oriented monitoring and evaluation, the 1997 national evaluation looks conceptually sound and on the field has yielded encouraging results as can be seen in **Table 8, 9**.

This specific CONASIDA structure reinforced the 1996-2000 Plan and became the core of the 1997-2000 Program to Strengthen the Prevention and Control of HIV/AIDS and other STDs. The PSPC states as its national outcome/impact indicators to be achieved by the year 2000:

1. Decrease by 50% the number of children infected by HIV during Pregnancy, labor or breast-feeding.
2. Eliminate congenital syphilis.
3. Decrease up to 2% the proportion of blood transmitted HIV and hepatitis B cases.
4. Increment condom use by 30%
5. Decrease incidence rates of AIDS cases by 2% *
6. Decrease incidence rates of gonorrhea and syphilis by 30%
7. Provide timely attention to 80% of persons infected with the HIV virus and other STDs.
8. Decrease in a 100% the violations of human rights of persons infected with HIV and other STDs by the Health sector

* Cases and contacts are considered

4. M & E of Proximate Determinants

Between 1987 - 1997 there have been a fair number and type of instruments used to assess proximate determinants. It is beyond the scope of this country case study to do a comprehensive review or report of all of them. Therefore a few of the most relevant in terms of providing a longitudinal perspective on knowledge, attitudes, and sexual behaviors of populations of interest and their change over time will be described here.

MEN

Sexual Behavior in Mexico City, a 1992-1993 Survey (1)

This survey published in 1994 studied a sample of 8,068 men focusing on their sex life and sexual practices, condom use, prevalence of STDs and their knowledge of risk perception of infection by HIV. The survey sample was obtained from random sampling of households proportional to the volume of population per delegation taken from the 1990 population and housing census.

Socio-economic strata of subjects was predominantly low (83.6 %, income between 1-9 daily minimum wage). They ranged in ages between 15-60 yr. old and 46% were between 20-34 yr. old (similar of general pop. census age distribution). Regarding marital status and relational role; 54.2% were married or in a free union, 43.3% were single and 2.4% were divorced or widowed. 52.6% had at least one child, 51% were heads of household, 38% were sons, 0.5% were partners of the HoH and 10.3% were relatives of the HoH. Of the total men who were heads of households 64% were between 25-44 yr. old, 90.1% of sons were between 15-29 yrs. old and 9.9% were ages 30+. In terms of education more than half the sample (52.7%) had completed high school while 29.5% had no schooling or some grammar level grades completed. With respect to employment 75.2% were economically active (assistants, clerks, blue collar workers) and of the 24.8% economically inactive, 17.7% were students. In terms of religion 84% reported being Catholic (38% practicing).

With regard to sex life and sexual practices 16% reported an inactive sex life, 1.3% active non-coital sex life and 82.7% an active coital sex life. The mean age for first coital contact was between 16.4 and 17.4 yr. old. Age for condom use to avoid pregnancy was 27.4 yr. old for those born in the 1940s and 17.2 for those born in the 1970's. In relation to sexual classification, the sample was classified only on behavior, not self-identity or fantasies and the classification differentiated practices up to one year before the survey or during the year of the survey. Classification for homosexual and heterosexual practices was on a never - sometimes - always dimension with a crossover performed to get at bisexual practices. Most of the sample (81.4%) reported only heterosexual practices with the most sexual activity showing between the ages of 20-39, 2.1% reported bisexual practices, also with most sexual activity between the ages 20-39 and 0.4% reported being homosexual (active or inactive).

Insofar as bisexuality and condom use, 70.6% with BI practices engaged preferentially in heterosexual relations with 11.7% being bisexually active. 50% were married and 45.3% single. Only 4.7% of all bisexuals, regardless of preference or activity, used condoms in sex with men and 14% used them in sex with men and women, while 59% of MSM used condoms regularly. Significant in relation to condom use, was that 61.3% of the BI and hetero men reported not using a condom in the last sexual relation, there was a higher prevalence of use (76.8%) among the 15-24 yr. old groups, 48% of those using condoms did it to prevent pregnancy, while 47% to avoid STD and only 4.3% to prevent HIV infection. Of the 98% engaged in coital vaginal sex 19.4% used condom, of the 2.6% engaged in anal sex 24.6% did also and of the 10% engaging in oral sex 10.2% used condom.

Only 3% of the total sample reported having had sex with a CSW, 62% of the ones that had used condom (the 20-29 age group and single, mostly). Of the total sample, 14.8% used condoms with both regular partner and CSW, 47.2% used it with CSW only and 33.7% did not use it in either case.

With respect to STDs, 10.8% of the total sample had some type of STD sometime, with the largest proportion (65.8%) being among the 30-49 age groups, the married group showing a higher prevalence (19.1%) than the singles (12.7%). The highest incidence of STD was found among bisexuals (31.7%), followed by MSM (14.3%). Further analysis showed that in the last year the frequency of STD types reported

were: 9.8% burning pain while urinating, 4.2% gonorrhea, 3.4% hepatitis (non-specified) and 0.8% condiloma.

Of all the sample only 10.7% had an HIV test done with 46.3% being in the 25-39 age groups and between 80% and 91% had good general knowledge of about HIV/AIDS and agreed that using condoms impedes getting it. Only 5.5% reported a high-risk perception of getting it from past relationships, 1.3% in present relations and 4.4% in future relations.

Prevalence of condom use and factors associated 1996 (2)

This graduate thesis, looked at 2739 men between the ages of 15-49 in Mexico City and put out there an interesting finding and two very pertinent questions. Once it established that 99.4% of the sample had had sex, that 50% got condoms at pharmacies while 19.2% got them at bars and hotels, to the question of reason for use 86.7% answered they use condoms with stable partner to avoid pregnancy and almost in the same proportion (87.5%) they reported using condoms with an occasional partner to avoid STDs. Utilization varied significantly according to sex partner; 18.8% reported use with stable partner and 62.5% with occasional partner. Condom use was related to socio-economic class and showed that 26.6% of Hiseq, 27.3% Midsec and 16.1% of the Losec use condoms raising the questions: 1) is access an issue and 2) does it have different meanings to use condoms according to SE level ?

A review by Magis (3) of 22,813 male and female client's surveys at CONASIDA I & A Centers between 1990-1995, found that the prevalence of condom use went from 34.5% in 1990, to 40.5% in 1995 overall. From the 17,000+ male surveys reviewed when comparing percentage of condom use between the two points in time (90-95) and according to sexual behavior, MSM increased from 42% to 53.5%, bisexual men from 39% to 43.6% and heterosexual men from 32.3% to 38.3% supporting once more the very low risk perception that this last group has for getting HIV/STD infected.

Finally, a review of sentinel survey data on condom use and frequency in men for about the same period showed 61% MSM having used a condom in the last month and an increase from 1991 where 27% reported using it always to 43% in 1995; 28.4% heterosexuals using it last month and decreasing from a 27.3% almost never use it response in 1991 to a 16.5% in 1995 and 41% bisexuals using last month and decreasing from a 46% always use it to a 39% in 1995.

WOMEN

A National survey on fecundity and health (4) conducted in 1987 showed that among women in the reproductive years, for contraceptive purposes, condom use was rated pretty low among 7 preferred measures (pills being first with 89.9%, condoms being fifth with 63.2%), that use of any contraceptive method differed greatly from knowledge (pills 28%, condoms 7.4%) and that 85.6% of the sample did not use any method because they disagreed with using or felt there was no need for it. An important finding was that only 19% of women aged 10-24 were single compared to 70% of the men in that same age range. A subsequent review added that data on women and condom use is scarce and non-comparable and that of a sample of female adolescent students from 1995 only 3.5% reported using it in their first sexual relation.

Woman, Sexuality and AIDS, 1994 (5)

This position paper states that even though the rate of AIDS cases in women between 1988 (24: 1), had increased in 1994 (6: 1) campaigns had not been directed to them as a group different to a high risk group such as CSW. This plus the traditional sex education of women making woman a passive subject, denying her body and seeing her sexuality only as a means to please another had, in the face of AIDS, paralyzed women sexually even more. It also pointed out the very scarce research done on women that it is not linked to their role as mothers or whores; that is, being looked at sexually as transmitting agents, dangerous to their partner or their child.

The author points out that safe sex methods and workshops do not respond to the reality of a majority of women's lives and needs and that as long as women do not have their own condom, their only measure is to convince men to use male condoms which leaves their safety in someone else's hands. From a gender perspective this reinforces dependence and passivity. The dichotomies established by sex separation, the feminization and masculinization of behaviors have also brought an increase in guilt, a distancing from other women for those that transgress norms of what is considered appropriate feminine sexual behavior.

The author concludes by stating that sexuality has no gender but culture defined roles stating what is male and what female in terms of limits, spaces or permissions for one or the other leads to both ending up fenced in and that campaigns and workshops need to link Prevention and Pleasure instead of Sex-AIDS-Death by rescuing a gender perspective where woman is restored as a capable, active decision-maker on how, when and where she wishes to exercise her sexuality.

Women and HIV/AIDS: reflections on the present situation and some legislative challenges. 1998 (6)

This socio-epidemiological report focuses on how women have been ignored until recently in the AIDS epidemic, both internationally and nationally. Neither the first or second CDC AIDS clinical criteria for case definition included GYN illnesses until the 1992 one where invasive cervico uterine cancer, vulvovaginal candidiasis and pelvic inflammatory disease appeared resulting in severe underreporting and delayed diagnosis. As an example it cites the cumulative incidence rates in women since the start of the epidemic in Mexico where even up to this day 29% of cases are reported as unknown in origin, 28% are via blood transfusion and 36% heterosexually transmitted.

The study offers some explanations regarding the overall sparse research on the sexual conduct of Mexicans, the sociocultural constraints of investigating the subject especially the latent, hidden, secret, though male accepted, bisexuality among men; points out to the emerging gender based research on how cultural constructions of what is female and male influence transmission and proposes several ethical and legal issues that need addressing, such as: pregnancy and abortion in seropositives, previous forced sterilization, and AIDS orphan children.

YOUTH

Preventive Interventions in Adolescents 1994 (7)

This important review of the first studies and surveys regarding adolescent sexuality, of several interventions by different groups and their evaluation, where there was one, was part of the 1994 evaluation report prepared by CONASIDA. It surmised that attention began to be paid to the young when the AIDS syndrome profile known by age groups pointed to the largest proportion being in the 25-34 age group. The possibility that transmission happened in previous years signaled the importance of prevention to inform and prepare teenagers about protected sex before they engaged in an active sex life. (**Table 10**)

Surveys

What was known at the time about sexuality in youth was the result of three surveys, all conducted in the Mexico City area:

- 1) a 1988 National Council on Population (CONAPO) survey of junior college students that showed 23.3% having had sex, 76% of the females with their boyfriend and 10.8% with a friend; 54.7% of the males with a friend, 22.4% with their girlfriend and 18.3% with a CSW. Sexual information was exchanged with mothers by 54% of the females and with friends by 53% of the males.
- 2) the ECRAMM survey of 1988 revealed that between ages 16-17, 42% of males (6% with a CSW), and 23% of the girls had sex at least once.
- 3) the 1989 General Direction of Epidemiology surveyed university students in 6 big cities and found the mean age for starting sexual relations was 17.9 and that there was a big contradiction between knowledge and high risk behaviors.

Monitoring and Evaluation of Interventions

Since 1991 CONASIDA pointed out the lack of attention in pediatric and family medicine units to sexual adolescent reality and reported, based on the fact that 46% of their clients were teens, a high prevalence of STDs such as gonorrhea, syphilis, condilomas, genital herpes and positive HIVs. This lack of attention was present in epidemiological surveillance where until 1993 the 10-19 age group was often not included.

Between 1990-1992 CONASIDA engaged in a series of preventive interventions for this group:

1) A brochure called 'Growing up in the time of AIDS', designed by an interdisciplinary team and evaluated interinstitutionally by 9 different academic, adolescent-focused and government educational agencies. The brochure's purpose was to give information about AIDS and sexuality in a way that promoted discussion of the subject between pre and teens and their parents and teachers. This project received extensive external evaluation through qualitative methods such as focus groups with high school students, parents, and teachers of both genders from public and private schools. The most relevant finding was that dissemination although extensive was insufficient since there were 20 million teenagers in Mexico and 262,300 brochures had been distributed.

2) Also in 1991 CONASIDA produced a video called 'Blinders' to stimulate the search for information and presented it as TV spots aired over a 3 month period. This project was evaluated through in depth group macro-sessions with parents and teenagers ages 14-15. The evaluation reported: a) a real preoccupation about AIDS but seen as happening to others, other social groups; b) although there was information, it had not awakened the anxiety levels necessary to mobilize spontaneous search for information; c) although the remembrance of messages was good, they were too rational, did not move emotionally to feel /perceive the risk of self, d) the teens felt message directed to the parents and thought it would not facilitate family dialogue since that was not a topic to be talked about with parents or partner. The merit of this intervention was that it got information out on TV, sensitized the parents and legitimized the subsequent right of the young for information.

3) Video 'When young and hot.better', produced in 1993 had the purpose of motivating teens to reflect about their future, offer critical thinking elements to make sound decisions about prevention choices, diminish fears, myths and prejudices related and open communication channels with parents and partners. An accompanying manual is being designed and video is being evaluated qualitatively, results are still to come.

4)) Between 1992-1994 CONASIDA launched 4 more TV and radio campaigns directed to teens, parents and teachers promoting education about AIDS, proposing alternatives for AIDS prevention, fomenting the search for truthful and accurate information, disseminating a positive attitude to those affected by AIDS/HIV and promoting better risk perceptions. Altogether these campaigns reached a 2+ million viewer impacts. There was no further evaluation on these efforts.

Education

Basically this review stated that there had been no advances in 20 years in formal education curricula. Even though up to 1988 sex education was included in grammar school level the Ministry of Education eliminated it which was a very bad move given the low continuity between grammar and high school canceling perhaps the last chance of reaching such high proportion of children. In the official plan for high school at the time sexuality themes were seen in 8th grade in Civics and Biology classes covering a variety of legal and biologicistic topics that fortunately included some references to AIDS/STDs and prevention methods but only from a contraceptive perspective.

Besides CONASIDA, other public and private organizations participated in education campaigns directed to teens. MexFam's 'Young People' program, AMES, CORA and IMIFAP have been doing ongoing research and/or training and by 1994 had incorporated a gender perspective in the Integral Development of Adolescents Day, held annually.

Research and Publications

This review stated that there were very few studies or publications on teenagers and their sexuality. Two worth mentioning:

Myths and dilemmas of the young in the times of AIDS. 1994 (8)

This behavioral study focused specifically on the possible underlying determinants of the underestimation of high risk danger, past and future, of unprotected sex. It interprets this response as a reflection of the cultural complexity of sex encounters in teens since they only parrot the messages received.

However the change sought which is fundamentally cultural has not occurred, and there is not enough analysis of the values, religious practices, mental and emotional representations, threats and vulnerabilities behind the rejection of safe sex, even if males and females argue different reasons, also gender determined culturally.

What's with AIDS ? 1993 (9)

The only publication of a different genre, this novel now in its third printing, approaches the subject from the perspective of the emotional vicissitudes, fears and daily anecdotes of the young. A strategy of better penetration, far more effective in identifying and facilitating risk perception among youngsters than the closed information messages.

Prevention Campaign for Adolescents, phase III 1997

A brief review of this Mass Media campaign is worth presenting since both the interventions, analysis of results and evaluation are impact oriented.

The campaign had as objectives: that teens, parents and teachers perceive risk situations as something close to their experience and context; to inform that H/A is an STD that can be prevented; promote preventive modes, and reinforce TELSIDA as a key informant. The campaign redefined teens profile to ages 15-18 based on the cumulative evidence that teen sexual life has begun or is about to within that age range. It had a clear gender perspective and adults (parents and teachers) were included as a reference point for teens. Perhaps for the first time it used a direct communication strategy.

The campaign plan involved TV and radio spots, printed materials, external publicity on buses and huge billboard ads for each group, and extensive press involvement through press release, press conferences and newspaper adds. The evaluation's objective was to know needs and viewpoints of audience to better direct messages to receiver. The evaluation used survey results, 30 focus groups at national level, Mexico City based in depth interviews with all three groups and 10 interviews with opinion leaders from the political, NGO, religious, mass media and academic sectors, to asses two core outcomes:

- a) Impact on target population measured by knowledge and value level of information, acceptance, understanding and perception.
- b) Analysis of factors that influence understanding and acceptance to propose immediate action alternatives with more efficiency and impact on the process of ICE of target groups.

The evaluation involved 7,393 teens, of which 5026 were students and 2,367 were not, 2769 parents and 2,716 teachers and was conducted in 13 States. There were 30 focus groups in 5 cities where the teen sessions were grouped by sex and age range (Girls 15-17, 18-19; boys 15-17, 18-19), parents sessions and teacher sessions. Result indicators appeared as follows:

- ✓ Knowledge of campaign: Yes for all groups in a 51-66% range with regional, education level, higher income differences found.
- ✓ Most effective medium: the TV (65-80%) for all groups
- ✓ Usefulness, clarity, and acceptance: Yes (81-94%) for all groups
- ✓ Remembrance of messages: most 'use condoms' in 45-48% for all groups
- ✓ Understand campaign: Use condom message understood in two ways; as a responsible preventive measure and a suggestion/permission to practice sexuality
- ✓ Condoms: two clear and opposed discourses: security and effectiveness of condom use or permissiveness to have sex disqualifying safety of condoms and proposing a change to abstinence.
- ✓ Big advance in 'condom talk', relative advance in prevention
- ✓ Condom safety: approximately two thirds of the total sample considers it very safe
- ✓ Condom use: of the 30% students sexually active 60% had used sometimes. Of the 46% non-students sexually active, 51% had used it sometimes
- ✓ Attitudes towards condoms: the females in all groups accept it less than males, teenagers more willing to use than adults
- ✓ AIDS information: between 81-90% knew basic info. on infection and prevention
- ✓ TELSIDA: 75% of students and 58% of non-students know it

- ✓ Whose responsibility is it to inform: 70% of parents said themselves, 65% teachers agree, only 4% teachers say themselves.
- ✓ Who do teens talk with about H/A: friends.
- ✓ Risk perception: One third of total sample continues to believe only CSW and MSM get H/A; women (teens and adults) perceive a higher risk. Still risk perception is low, for all groups it did not go beyond a 33-51% range.
- ✓ Sexuality, teens: 76% of teen group has had sex. Gender, age and education condition teens' attitude towards having pre-marital sex or not Parents: 68% disapprove yet 90% said if teens would, use condoms. Teachers: 58% believe teens start sex between 15-17. 50% disapprove, most feel ambivalent and unprepared about broaching subject, and overall they feel overshadowed by communication media and reality in general. Opinion leaders were divided depending on the sector they represent

M&E project on intervention with teachers 1994-1996

CONASIDA was able to link to high school programs doing two phases of teacher training through interactive action-reflection workshops in order to understand the problem, favor change towards decision-making and promote preventive behaviors.

These project contained a 4 step evaluation of which 2 are the most relevant: the results on knowledge and attitudes of participants (pre-post self-administered questionnaire) and results in the field of courses executed by trained educators. The target groups were 32 teachers (100% sample) and 72% social workers (50% of sample). The questionnaire results:

- ✓ Knowledge; 91% of subjects answered at least 20 of the 25 questions concerning general knowledge, modes of transmission and prevention measures correctly. 100% could identify 3 modes of transmission and that correct condom use prevents infection, 36% did not identify STDs as co-factors and 33% still thought that H/A could be transmitted by sharing bathrooms, pools or transportation with infected persons.
- ✓ Attitudes: 62.7% of subjects showed a favorable attitude towards topic
- ✓ Risk perception: 87.7% agreed that everyone is exposed, 96% thought that being informed facilitates decision-making to avoid infection
- ✓ Sexuality: 98 % agreed that sexuality should be openly discussed
 - 100 % disagreed that parents should be only source of information
 - 93.5% favored sexuality being talked about in schools
 - 41% agreed that homosexuality is a sexual orientation
- ✓ Use of condoms: 91.3% reported condom use
 - 93% considered that both men and women could negotiate condom use
 - 6.5% considered that condoms are only for promiscuous people

No significant statistical relationship was found between knowledge and attitudes

✓ Results in the field of courses executed by trained educators

The objective was to get information on prevention activities done at schools after workshop. A quali-post method of conducting 16 in depth interviews (1 per school) following a guide of 12 thematic axis grouped in 4 categories was used.

Themes:

a) Projects, programs or activities

Of all 16, 13 did some activity, only 4 developed programs

b) Participation of teachers in prevention

Perception prevalent in most schools that theme should be covered by SW or counselors

c) Parent participation in info. and prevention activities

Of the 16 schools only 4 did activities that included parents. Others planning to do something in the future, several unsure since parents expressed concern

d) Evaluation of activities and attitudes on information received

Evaluations in the 4 schools that had planned and carried out programs still in analysis

5. M&E of HIV and STD epidemics

HIV incidence in rural areas shows an increment of 50% over the last three years from 3.7% to 6% while urban incidence remains relatively stable with 4,000 new cases per year since 1996. HIV prevalence among younger women seems to have increased between 1993-1998 where for the 15-19 age group the ratio is 3/1, while for the 20-24 it is 5/1, in both cases higher than the mean ratio of 6/1. Among ANC it has also increased from 0.04% in 1991 to 0.09% in 1998; in blood donors it is 0.09%; in pediatric cases it maintains at 2.5% of total cases, among FCSW it is 0.3% while in MCSW it is 13.5%, in MSM and bisexuals it is 15.6%, in heterosexual men it is 3%; in IDU it is 3.4%; in male prisoners it is 1.7% while for female prisoners it is 1.8%; in TB patients it is 2% for men and 0.6% for women ; in STD patients it is unknown .

About STDs , as stated before, there has been systematic underreporting and big gaps in the information presented. Within this constraints what is known at present is that there are an average of 200,000 cases per year and that they are one of the 10 first causes of mortality. Between 1970-1996 there was a downward trend in classic STDs : acquired syphilis (12.8 to 1.5), congenital syphilis (0.19 to 0.01), gonorrhea (45.2 to 13.5),

blanc chancre (1.08 to 0.74), venereal lymphogranuloma (0.94 to 0.3). The new generation STDs though are showing an upward trend during the period 1986-1996. These infections began to be reported in 1986: genital herpes (1.1 to 3.1), trichomoniasis (31.5 to 119.6), candidiasis (53 to 136.2) and between 1990-1996 hepatitis B (0.6 to 0.6).

STD associated mortality is showing a downward trend with a rate of 0.17 to 0.5 per 100,000 pop. in 1995. Until 1990 50% of the mortality rate was syphilis and 50% congenital syphilis. Since 1990 when hepatitis B began to be reported it has represented 60% of the mortality rate followed by 35% syphilis. The high-risk population is among the age group 15-24 (34%), followed by two age groups 25-44 (41%) and 17% in the 60+ group. In regards to sex there is only hospital morbidity data, which for 1995 reported a 55% rate among men being discharged.

6. M&E of AIDS care and support, treatment

The burning M&E question in Mexico about AIDS care is who will pay? Although treatment has improved significantly since the arrival of antiretrovirals, these are very expensive. At present the cost of the basic cocktail (AZT, 3TC, Protease inhibitor), equals 252 daily minimum wages. (**Table 11**)

NGOs have carried out much of the clinical care through mid-term inn and hospices, medication banks and recycling or directing meds where needed among many others. CONASIDA Legal Counseling and Human Rights Defense department has been attending AIDS patients grievances since 1992 and a Guide for the Medical Attention of HIV/AIDS patients first published in the late 1980 is already in its third printing Just this year CONASIDA published a book entitled Medical Care Costs and Expenditures for HIV/AIDS in Mexico (10) which analyzes public and private costs of in and out patient care, medications, lab tests, etc. and puts forth some proposals for improving the whole care system in a more cost-effective manner.

7. Review of use and usefulness of PI indicators

As can be seen throughout this case study although PI indicators have not been used in a formal or systematic way, there is much information that if properly grouped and analyzed could respond to some of them such as PI 1, PI 4, PI 8, and PI 10. In other cases the information it is simply not there (PI 6 to PI 9). However in the National Health Plan of Integral Supervision adapted by CONASIDA to meet its systematic evaluation information needs, the PIs as developed by the WHO have been included.

The only two PI that can be answered partially at this point are PI 2 and PI 3 :

In the last 12 months there were 43,400,000 condoms available for distribution by the Health sector and 35,000,000 were sold in the same time period. Considering the population between ages 15-49, it is

estimated that 760 million would be required to prevent A/S covering all persons at risk. This mean that at present only 10% of what would be needed is available. (3)

All condoms distributed by the Health sector agencies are manufactured locally because NAFTA rules forbid the purchase of foreign made condoms by the government creating therefore a monopoly that covers over 55% of the total offer. In the private sector where 35 million condoms were sold in 1997, USA products covered 73% of the market share.

8. Interaction between M&E and policy making/programme planning and implementation

Most of the answers that could be given to this point have already been stated throughout the report. In brief, one could say that due to all its structural, cultural and economic constraints the country's most manageable response mode has been a delayed one.

9. M&E of interaction between national program and donor assistance

Donor assistance, financial and technical, has had a significant place in the development of M&E efforts. All programmes, activities, research studies, getting NGOs off the ground was possible because of funding by external donors in the early years of the program. External donors have funded later most projects with innovative design and evaluation components. Perhaps it is important to remember, on the one hand, that Mexico is cautious when entering externally funded endeavors due to historical reasons and, on the other, that the philanthropic tradition is new in Mexico leading to sparse fund seeking knowledge and behavior on the part of the public and academic sectors.

10. Conclusions

The objective of this country case study was to conduct a formative evaluation on the M&E efforts of its national HIV prevention, AIDS care and STD control program. The study's larger purpose relates to the global context where seeking for better outcome information and a comparable set of indicators is the objective. In order to respond to both objectives a distinction must be made between the internal or national stage of M&E efforts and then attempt to relate them to the international perspective.

The National Scene

Developing systematic, organized M&E practices is a process of education that requires time, continuity and space. The overall efforts of the national program for the last 15 years have been epidemic driven with responses to urgent, immediate needs and insufficient resources, human, technical and financial. The program has also faced deep counterfactual elements primarily of structural and cultural nature exercising a systemic resistance to dialoging on very fundamental questions about sexuality. Furthermore, enormous demands were placed on it by the bio/medical community, the NGOs, the population infected and the general population. Finally, slow yet ongoing intense negotiations towards the inside of the government bureaucracies to obtain approval and financing for activities did not leave the time, continuity and space to support solid, systematic M&E, much less to conduct impact analysis.

M&E needs have been partially met because of the accomplishments derived from traditional epidemiological monitoring, the program's efforts to link information from many sources to P&E activities and evaluate them even if in a diffuse manner. Also, in spite of limitations, having some information seems to have allowed the younger group to enter the topic and educate self and peers on new prevention behaviors. Among the factors that have aided M&E are the ongoing efforts to evaluate condom use campaigns and try different approaches, the support from powerful sectors such as the mass media and the national government initiatives to modernize and organize its services. Certainly the alliances between the State (CONASIDA) and civil society (NGOs), between the Federation and the States, the National Program and the International and Regional AIDS organizations, even the slow and difficult alliances with the different public sector agencies have yielded improvements in conceptualizing clearer M&E initiatives.

On the negative side, M&E efforts, especially traditional ones, seem so overconcentrated on following some well known 'at risk groups' that a question of whether the general population or new sub-groups are being placed in another type of at risk situation needs to be raised. There is a plethora of unanalyzed data which if grouped correctly could yield most relevant information already except that there seems to be a

disconnection between research activities and prevention and intervention activities resulting in non-useful repetition in some areas and huge gaps in others.

At this point in time Mexico is ready to enter a new phase in the execution of a national strategy of M&E that is outcome/impact focused. The systemic infrastructure is in place with the new PROMAP and HISP initiatives and the corresponding 1997-2000 CONASIDA plan to strengthen the prevention and control of HIV/STDs. There is trained personnel that can now train many others so that the cascade effect reaches down and broad, the level of awareness of the different societal sectors is much higher than it was even 5 years ago and the epidemic although presenting new challenges is under sufficient control that the various interlocutors attending to it can take stock and start acting proactively instead of in a constant reactive mode.

Linking with the Global Scene

It is in this synergy of Mexico 's state of preparation and the WHO Global AIDS Programme priority interest in trying new ways of m&e prevention and control of all STDs, including HIV, that a useful and significant relationship can emerge between both. There are many windows of opportunity for Mexico in the next two years that merit observing and assisting. The incipient binational epidemic pattern for HIV transmission in rural, especially migrant population settings, presents a rich and real condition to observe, monitor, intervene early and learn from since surely such endemic channels will appear more and more as migration movements around the world continue and increase. The next population census will take place in the year 2000 and many of the DHS questions pertaining to sexual health and behaviors could be added to it. For once the chance is open to incorporate a M&E model at the start of a massive program. In summary, the challenges are here, national and international, old and new. It is quite a place to be at the dawn of a new century.

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