

ACCESS to DENTAL CARE for UNDER-PRIVILEGED PEOPLE in QUEBEC

A DESCRIPTION OF THE PROBLEM AND
POTENTIAL MEANS TO ADDRESS IT

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REPORT SUMMARY

As with the rest of the western world, the oral health of Quebec's population has improved over the past 20/30 years. Nevertheless, oral diseases, their symptoms and their functional, psychological and social impacts remain highly prevalent. Furthermore, from a public health perspective, it is important to note that these oral diseases and their impacts are not distributed evenly in the population, with certain groups consistently suffering higher levels of disease. And to make matters worse for these groups, they tend to also have the greatest difficulty accessing dental care. In Quebec, people with poor financial resources and those with cultural backgrounds (whether it be ethnic, educational or economic cultures) that are different to the backgrounds of health care professionals consistently have the highest levels of oral diseases, the highest levels of symptoms and other impacts and the lowest levels of dental service utilisation. The greatest barriers to dental care are the financial cost of those services and the different perceptions of health care needs that exist among health care professionals and some groups in the population.

In Quebec and the rest of North America, the large majority of dental care is provided and paid for through the private sector. This sector is poor at providing services for those who cannot afford to pay. Recognition of this unacceptable situation of high levels of oral disease and low levels of dental service utilisation among those with poor financial resources coupled with the service's inability to provide dental care for the under privileged has lead a variety of groups to initiate programs to address the problem. Existent programs fall into one of three categories: those based on a system of referral to existing private dental offices; those using dedicated mobile facilities; and those involving dedicated fixed dental clinics.

Each of these program types has its advantages and disadvantages. For example, referral systems are well suited to rural areas because they use existing dental

offices spread across large geographical areas. Mobile clinics are ideal for those whose physical mobility (e.g. the elderly or disabled) is reduced and fixed dedicated clinics are good for providing those services that are logistically difficult for mobile services (e.g. radiographs). Programs have been initiated across North America to try to deal with the problem of access to dental care for various groups in the general population. They use a variety of funding sources, some of which are relatively permanent, while others are extremely transient. Similarly the financial resources of some are considerable, while others depend heavily on volunteer time and donations of money, services and/or materials and equipment.

In Quebec four separate initiatives have started in recent years and others are developing. In Montreal, there exists a mobile and a fixed clinic program run through McGill University and the Université de Montréal respectively. In Saguenay-Lac-Saint-Jean, there is a program run through the local CLSCs using the referral-to-existing-dentists model. Finally, there is also a mobile health education facility run through the Fondation de l'Ordre des dentistes du Québec. It is also important to recognise that there is a significant body of dental care being provided free or at reduced costs by dental professionals throughout the province on an informal, *ad hoc* basis.

This report reviews the problem of access to dental care for the under privileged and the existing programs designed to deal with that problem in Quebec and some programs elsewhere in North America. It makes recommendations concerning the best use of existing programs and their models and the development of a coordinated network of programs throughout the province. It also makes recommendations concerning education that should be used to promote an environment in which the problem of dental care for the under privileged is actively addressed by dental professionals and recommends research to evaluate the effectiveness of existing and future programs.

INTRODUCTION

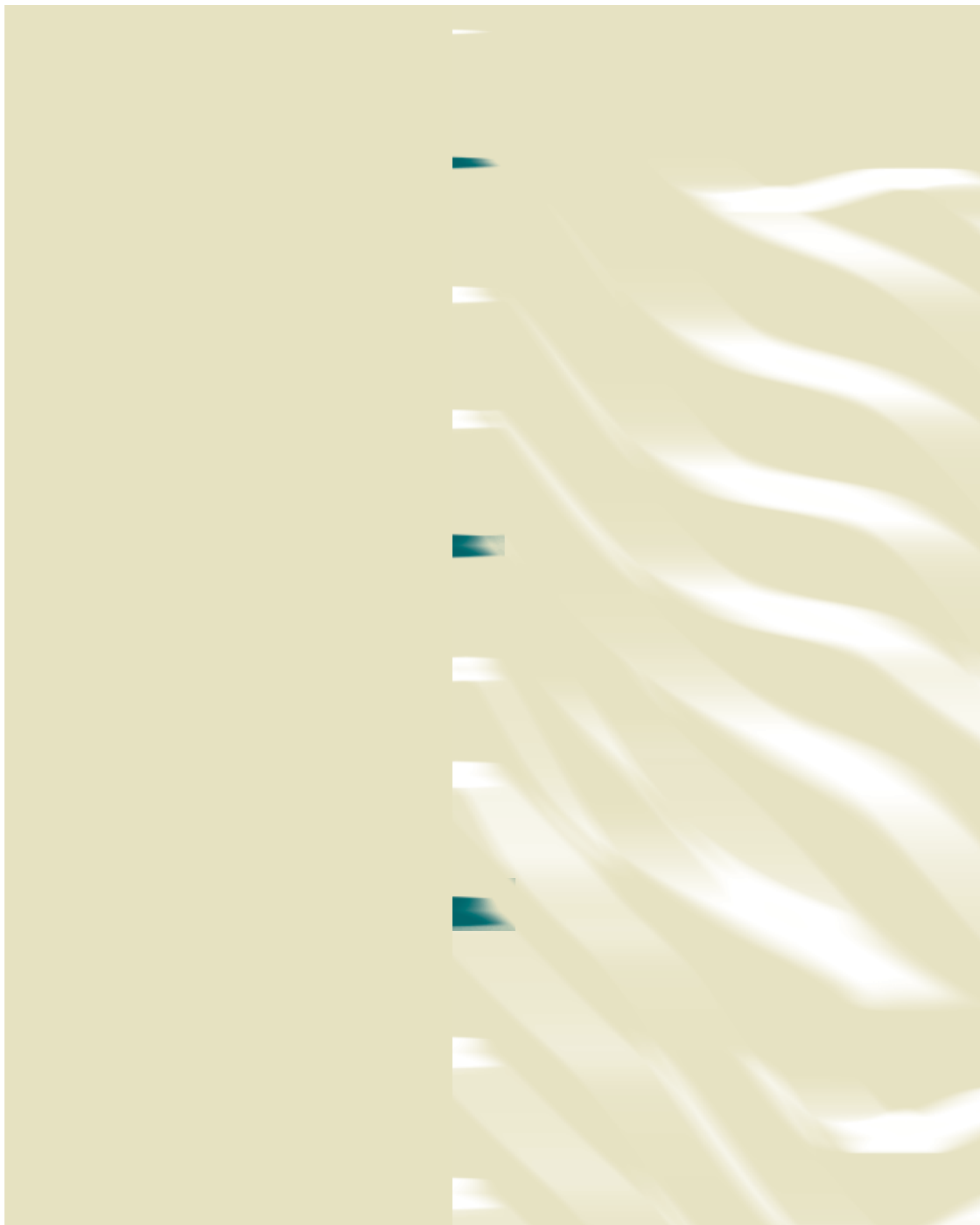
The overall goal of this report is a discussion of the problem of dental care for those with poor access to dental services in Quebec, with a view to making suggestions to deal with that problem. This report is not intended to be a systematic review of the problem or any potential interventions or programs to deal with that problem. Rather, this document summarises previous detailed reports of the oral health of Quebec's adults and children and describes a number of programs developed to address the problem of access to dental care for the under privileged in Quebec and elsewhere. These brief descriptions of selected programs are intended to inform discussion of potential solutions in Quebec rather than be detailed analyses of each program. In summary, this document aims to:

- ▶ describe the oral health of the population of Quebec;
- ▶ describe the determinants of poor oral health in Quebec;
- ▶ describe the impacts of poor oral health;
- ▶ describe dental care utilisation in Quebec;
- ▶ describe the determinants of dental care utilisation in Quebec;
- ▶ describe existing programs in Quebec and elsewhere in North America that provide dental care for the under privileged; and
- ▶ summarize the information and make recommendations for future work to address the problem.



Part I:

The problem



ORAL HEALTH IN QUEBEC

The first section of this document will describe the oral health problems prevalent in Quebec and discuss the factors that determine how those problems are distributed in the population.

The oral health of Quebec's adults

Compared to most other western countries and other parts of Canada, the levels of partial and complete tooth loss in Quebec's population are high^{1,3}.

The most recent survey of the oral health of Quebec's adults was performed on a representative sample of 35-44 year old members of the population in 1994-95¹. As with most populations of that age and older in the western world, the past caries experience of Quebec's 35-44 year old population is extensive. Among those with any teeth, this group has an average of 10.6 teeth filled, 8.2 teeth missing due to caries and only 12.0 healthy teeth. In addition, they have a mean of 1.2 teeth with active, untreated caries. However, as is again observed increasingly throughout the world, the untreated caries is not

distributed evenly, with 14% of the adult population having 73% of the untreated caries.

Another important indicator of oral health is tooth loss. In the aforementioned study of Quebec's 35-44 year old population, 5% had no teeth and 23.9% had less than 20 functioning teeth, which is a level that is currently thought to be a minimum permitting good function and an appropriate diet². Compared to most other western countries and other parts of Canada, the levels of partial and complete tooth loss in Quebec's population are high^{1,3}.

Other oral health problems concerning which there are some data for Quebec's adults include periodontal (gum) disease, facial pain (as an indicator of a musculoskeletal problem), mucosal lesions and oral cancer. A large majority of Quebec's adult population (73.6%) has a low level of periodontal disease, while 21.4% has signs of

more serious problems¹. Levels of facial pain were much lower, with 6% of the population having pain detected the day of the clinical examination¹. This is in agreement with a separate study using a telephone survey to investigate the prevalence of facial pain in Quebec's adults in 1990, which reported 30% had some level of pain and 7% had frequent facial pain⁴. With respect to mucosal lesions, 51.2% of people wearing a removable denture had a mucosal lesion, while 16.9% of the sample had lesions not related to a prosthesis. Finally, data concerning the incidence of oral cancer for Quebec show that the incidence in males is approximately 12 new cases per year per 100,000 of population (making it the 8th most common cancer in Quebec's males) and in females is approximately 4 new cases per year per 100,000 population⁵.

It is important to note however, that no data exist for some important oral health problems among Quebec's adults such as dento-facial trauma and acute dental infections. Furthermore, there are no recent data concerning the oral health of the elderly in the province.

Having described the available, recent information concerning the oral health of Quebec's adults, it is important to describe how these problems vary within the population according to socio-demographic, socio-economic and cultural factors, because there are important variations that should affect the delivery of services to deal with these problems. Furthermore, it is interesting to note that a number of factors recur as predictors of several different oral health problems. People living with a family annual income of less than \$30,000 are 3.8 times more likely to have four untreated carious teeth and 1.7 times more likely to have a serious periodontal problem than people living with a family income of \$60,000 or more. People with secondary school education only are 3.7 times more likely to have less than 20 teeth and 1.4 times more likely to have serious periodontal disease than those with university education. Although there are no data specific to Quebec, it is well recognized in the western world that the risk of oral cancer is also associated with being male, low income and poor education levels⁶. Those without dental insurance are 1.6 times more likely to have four untreated carious teeth and 1.4 times more likely to have a serious periodontal problem than those with dental insurance.

Men are 2.4 times more likely to have four untreated carious teeth and 1.8 times more likely to have a serious periodontal problem than women and have a much higher incidence of oral cancer. Older age is associated with an increased likelihood to have missing teeth and oral cancer and, compared to English-speakers, those who speak French as a first language are 2.1 times more likely to have less than 20 functional teeth.

In summary, poor oral health among Quebec's adults is related to being economically poor, less well educated, male and elderly.

The oral health of Quebec's adolescents

Similar to the adult survey, the distribution of caries was heavily skewed, with 28% of the 11-12 year old group experiencing 75% of the caries and 28% of the 13-14 year old group experiencing 68% of the caries.

A study of the oral health of Quebec's 11-14 year old children was performed in 1996-97⁷. In the 11-12 year olds the mean number of filled permanent teeth per child was 1.6 and the mean number of permanent teeth with untreated caries was 0.2. Similarly, in the 13-14 year old children, the numbers were 2.8 and 0.2 respectively. In both groups, the number of permanent teeth missing due to caries was extremely small. Across those age groups (11-14 years of age), the proportion of

children with no experience of caries in their permanent teeth decreased with increasing age from 46.4-25.4%. Similar to the adult survey, the distribution of caries was heavily skewed, with 28% of the 11-12 year old group experiencing 75% of the caries and 28% of the 13-14 year old group experiencing 68% of the caries.

Beyond caries, periodontal health and malocclusions were also measured in this survey. As would be expected in adolescents, the level of periodontal problems was extremely low, with 5.5% of the 11-12 year olds and 2.3% or the 13-14 year olds having a periodontal pocket. With respect to malocclusion, 11% of the 11-12 year olds and

12.7% or the 13-14 year olds had a severe or very severe malocclusion.

As with the adult information, there are no data on some important indicators of oral health in Quebec's adolescents such as dento-facial trauma, developmental abnormalities and acute infections. Similar again to Quebec's adult oral health, the distribution of oral health problems in the adolescent group is not even. Children living in families with an annual income of less than \$30,000, those whose parents had secondary education only, those whose families do not have dental insurance, those who speak a language other than English or French at home and those living in urban or rural (as opposed to metropolitan) areas are all more likely to have a high rate of caries experience.

The oral health of Quebec's children

A survey of the oral health of 5-8 year children in Quebec was completed in 1998-99⁸. Similar to the adolescent study described above, this study of young children's oral health concentrated upon caries as this is the most common oral disease to affect this age group. In the 5-6 year olds the mean number of filled primary teeth per child was 1.3 and the mean number of primary teeth with untreated caries was 0.7. Similarly, in the 7-8 year old children, the numbers were 2.2 and 0.4 respectively. In both groups, the number of primary teeth missing due to caries was extremely small. Across those age groups (5-8 years of age), the proportion of children with no experience of caries in their primary teeth decreased with increasing age from 61.1-41.8%.

Similar to the previous adult and adolescent surveys, the distribution of caries was heavily skewed, with 24% of the 5-6 year old group experiencing 90% of the caries and 26% of the 7-8 year old group experiencing 77% of the caries. Also similar to the aforementioned surveys, the factors associated with high rates of caries in both 5-6 and 7-8 year old age groups were a family annual income of less than \$30,000 and parents with only secondary school education. Additional factors related to high rates of caries in one or other of the two age groups were at least one parent receiving social welfare benefits, at least one parent having no teeth, living in an urban or rural (as opposed to a metropolitan) area and speaking a language other than English or French at home.

Summary of the distribution of oral health problems in Quebec

It is evident from this brief summary of oral health in Quebec that there are a number of factors that are common determinants of the experience of oral ill-health in this population. These factors include:

- ▶ economic indicators such as poor income, receipt of social welfare benefits and not having dental insurance;
- ▶ cultural indicators such as low levels of education (both of the individual concerned and of parents of children concerned), language spoken in the home and parents with no teeth;
- ▶ geographic indicators such as rural and urban as opposed to metropolitan residence; and
- ▶ demographic indicators such as age and gender.

THE IMPACTS OF ORAL HEALTH PROBLEMS IN QUEBEC AND ELSEWHERE

The first section of this document concentrated on summarizing the available data concerning oral health problems in Quebec and their distribution in its population. This second section will concentrate upon the impacts those oral health problems can have. The majority of these data were not collected in Quebec but are from other parts of the western world. Nevertheless, one would expect the frequency and severity of oral health impacts experienced by populations elsewhere in the western world to be similar to those experienced by Quebec's population.

The symptomological impacts

The most common and important symptom resulting from oral health problems is pain. In a study of the prevalence of different types of oral and facial pain in the adult U.S. population, over a six-month period it was estimated that 12.2% suffered toothache, 8.4% experienced mouth sores or ulcers, 5.3% had jaw joint pain and 1.4% had face or cheek pain⁹. In a study of Toronto's adult population, 39.7% of the sample reported having experienced oral or facial pain during the past four weeks¹⁰. A study among Ontario adolescents (12-19 years old) found that 13% had suffered toothache during the past four weeks¹¹, while a similar survey of Toronto's homeless adolescents reported

that 18% of them had experienced toothache during the past four weeks¹². A study of toothache experience during the past four weeks in a sample of eight year old children in the UK reported a prevalence of 8%¹³. Finally, in a study of preschool children attending the Montreal Children's Hospital with caries, 48% had pain¹⁴. Slade reviewed the prevalence of dental pain experienced by children in several western countries and concluded that dental pain is highly prevalent in children, even in contemporary populations with low levels of caries¹⁵.

Other symptoms, for which there are even less data, include dry mouth and burning mouth syndrome. The former is common, particularly in the elderly. A study of community-dwelling adults aged 50 years and older, living in Toronto found dry mouth to be the most common oral symptom with 29.5% of the sample being affected^{16, 17}. Another study of the elderly (aged 65 years and older) in Florida found that 39% reported a dry mouth and 23% reported an unpleasant taste in their mouth¹⁸.

The functional impacts

The most common functional impacts of oral ill-health are problems with eating and talking. A study of Ontario adults (aged 18 years and above) found 13% were unable to eat a full range of foods and 10% had problems with speech¹⁹. The prevalence of eating difficulties increased

with older age, with 33% of those aged 65 years or more complaining of problems chewing, and increased dramatically with tooth loss and denture-wearing. Of those with no teeth, 61.3% had problems chewing and 12.9% problems speaking, while 28.3% of those wearing a partial denture had problems chewing and 15.2% had problems speaking¹⁹. Similarly in a study of Californian elderly persons, 37% reported difficulty chewing and 10% were unable to swallow comfortably²⁰. In the previously mentioned study of the consequences of caries in preschool children attending the Montreal Children's Hospital, in addition to nearly half experiencing pain, 61% were eating sparingly¹⁴.

Another important impact of oral ill-health is on sleep. The previously mentioned study of facial pain in adults in Quebec found that 20-59% of those reporting mild, moderate or severe facial pain also reported sleep disturbance⁴. In the previously mentioned study of Toronto's adult population, 14.2% of those experiencing acute or chronic oral or facial pain also had sleep disturbance¹⁰. Again, in the aforementioned study of preschool children at the Montreal Children's Hospital, 35% of those presenting with dental caries also had problems sleeping¹⁴.

The social and financial impacts

The social and financial costs of oral ill-health are very large. In the USA, it has been estimated that 3.1 schooldays per 100 children (or 1,611,000 days in total) and 1.9 workdays per 100 adults (or 2,442,000 days in total) are lost due to dental disease each year²¹. This amounts to a considerable burden of lost days of activity to society. More directly, the costs of dental problems to the individual are considerable. In a recent Montreal-based study of the costs of having full conventional dentures or implant-supported dentures to replace all teeth in the lower jaw, the mean total cost for the former was \$2,316 and mean total cost for the implant-supported dentures, which give considerably better results, was \$4,245²².

The general health impacts

The links between oral disease and general health are increasingly being recognized in many situations. Studies of young children with dental caries have shown that they weigh less and have slower weight gain than similarly aged children without the disease^{23,24} but that when they are treated for the dental caries, their weight rapidly

increases such that 18 months later there is no longer a difference in their weight compared to age-matched controls²⁵. At the other end of the age range, studies of the effect of dental status on diet in the elderly have demonstrated that those without any teeth have reduced intakes of fruit, vegetables, fibre, protein and calcium, among other nutrients^{26,27}. In a study of the elderly (aged 60 years and older) performed in Quebec in the 1990's, it was found that those with poor chewing ability had a reduced intake of fruit and vegetables and an increased prevalence of gastrointestinal problems²⁸.

In addition to caries and tooth loss having a direct effect on general health, the relationship between periodontal disease and several aspects of general health is currently undergoing intensive investigation. Periodontal disease has been linked with an increased likelihood of mothers producing preterm, low birth weight babies^{21,29} and with an increased risk for heart disease³⁰⁻³², stroke^{30,33} and respiratory infections³⁴⁻³⁶. Finally, in addition to being the cause of numerous symptoms and functional and psychosocial impacts, oral cancer results in significant mortality. The most recent oral cancer survival information available for Quebec concerns data from the period 1984-98, during which time the 5-year survival rates for women ranged from 25-89%, depending upon the exact anatomic site in the mouth and pharynx, and for men were 29-69%, again depending upon the anatomic site³⁷. Data for the 1990's from the USA show an overall 5-year survival rate for oral cancers of 55% in whites and 33% in blacks, a situation that has remained the same for approximately 25 years³⁸.

Summary of the impact of oral health problems

It is evident from this brief description of some of the impacts of oral health problems that oral disease commonly results in pain, dry mouth and other symptoms. It also often considerably affects people's ability to eat and speak, and subsequently compromises their diet, resulting in a reduced consumption of nutritionally important fruits and vegetables, among other foods. Oral disease also directly impacts on general health, with periodontal disease especially thought to be part of the cause of serious health problems such as preterm, low birth weight babies, cardiovascular disease, stroke and respiratory infections. In addition, a significant number of people in Quebec die each year as a direct result of their oral cancer and a considerable number of schooldays and workdays are lost as a direct result of dental disease.

DENTAL SERVICE UTILISATION IN QUEBEC AND ELSEWHERE

Having briefly described the oral health of the people of Quebec and the impacts oral health problems can and do have, the next section of this report will describe dental care utilization in the province, with particular reference to those factors that affect it.

Utilisation and income

Probably the most important determinant of dental service utilisation throughout the western world is income. The evidence from the aforementioned surveys of the oral health and oral health care service utilisation of Quebec's adult, adolescent and child populations is very strong. Among adults, 56.8% of those with an annual income of \$30,000 or less had visited a dentist in the last year while 80.4% of those with an annual income of \$60,000 or more had done the same¹. Similarly, a family annual income of \$30,000 or less was associated with a decreased likelihood of having seen a dentist in the last year among both 11-12 year olds⁷ and 5-8 year olds⁸. In addition to dental consultation patterns, the likelihood of having untreated dental caries increases with lower family income in the child⁸ and adolescent⁷ groups. Beyond income, having dental insurance in the family is a predictor of yearly dental consultations in all age groups^{1,7,8}. In the adult group, of those who did not visit a dentist in the last year, 28.6% reported the cost as the main reason¹. These data all relate to Quebec but the same pattern of decreased access to dental care with lower family income is seen in Ontario¹¹, the USA²¹ and elsewhere in the world.

Utilisation and place of residence

Another important factor related to dental service utilisation is the geographical site of residence of the individual. In the survey of Quebec adults' oral health, those living in rural and metropolitan settings were less likely to have consulted the dentist during the past year

than those living in urban areas¹. This is often found elsewhere in the world and is associated with the fact that there is a higher density of dentists in urban areas compared to metropolitan and rural ones³⁹. Related to the issue of the physical location of dental services is their availability in terms of opening hours. Although there are no studies of this issue in Quebec, it has been observed elsewhere that dental offices tend to be open predominantly during normal working hours only, thus making access for people at school or at work more difficult⁴⁰. This is exacerbated for people on low wages who are paid by the hour and who have to take unpaid time off work if they wish to consult a dentist³⁹.

Utilisation and disability

No data concerning dental service utilisation for people with disabilities and living in Quebec are available. Nevertheless, a recent national study of access to dental care among people with Down syndrome in Canada reported that while children with Down syndrome are more likely to consult a dentist yearly than a sibling without the syndrome, they are less likely to receive preventive and restorative services and more likely to have a dental extraction than their siblings⁴⁰. In addition to people with inherited developmental disabilities having compromised access to dental care, groups such as the elderly with a high prevalence of acquired disabilities often have reduced access to dental care because dental offices do not have lifts and/or ramps and because, unlike many other health care services, domiciliary dental services are rare³⁹.

Utilisation and psychology – fear and perceived need

These two psychological variables are commonly cited as being associated with dental service utilisation throughout the western world. Indeed the perception of having no need for dental care is often the most commonly cited reason for not attending the dentist regularly^{1,39,41}. In Quebec, of those adults who had not consulted a dentist during the past year, 40.3% said that the main reason was that they felt no need to go¹. Similarly, in the USA, 46.8% of people who had not attended a dentist in the past year reported the main reason to be no perceived need⁴⁰. While this may be a relatively positive reason for not consulting a dentist, another important reason for not consulting that is often cited is fear. In Quebec, 9.5% of adults not consulting regularly said the main reason was fear¹ and in the previously-mentioned American study, 4.3% of adults cited fear as the main reason for non-attendance⁴¹.

Utilisation and culture – poverty, education, race and immigration

Culture is a system of learned and shared codes or standards for perceiving, interpreting and interacting with others and with the environment, which is transmitted socially from generation to generation⁴². In that respect, many groups within society have a culture particular to themselves and which could be related to dental service utilisation. This observation is supported by evidence from the three surveys of oral health in Quebec at the level of both family behaviours and cultural groups. For example, 92.5% of adolescents whose parents visited a dentist during the last year also visited a dentist during the last year, while only 58% of adolescents whose parents did not visit a dentist in the last year consulted a dentist during the last year⁷. A similar intra-family relationship for dental consultations exists for younger children⁸.

In addition to the clear relationship between family income and oral health and dental service utilisation, the culture of poverty has a strong effect upon health and illness behaviours such as dental service utilisation. The culture of poverty is quite different to that of the health care professional, thereby making perceptions and interpretations of health signs and symptoms and services available to treat them different between the two groups. A recent study of the perceptions of economically poor people in Quebec towards dental care found that this group felt

dental care to be too expensive and dentists not trustworthy⁴³. These perceptions lead to those living in poverty seeking alternative ways of dealing with oral health problems and using the dentist only as a last resort and then mainly for extractions⁴³. A study of the oral health of Montreal's homeless in the 1980s found that 85% of them needed dental care urgently⁴⁴. This work is supported by evidence, again from Quebec, showing that people from an under privileged background are more likely to consult a dentist only when they have symptoms, while middle and high income groups are more likely to consult the dentist regularly for preventive check-ups⁴⁵.

A culture with a similar effect on dental service utilisation to that of poverty is the culture of limited education. There is a consistent relationship between the people's level of education and their oral health status and dental service utilisation practices, with those with limited education and children of parents with limited education being less likely to consult a dentist regularly^{1,7,8}.

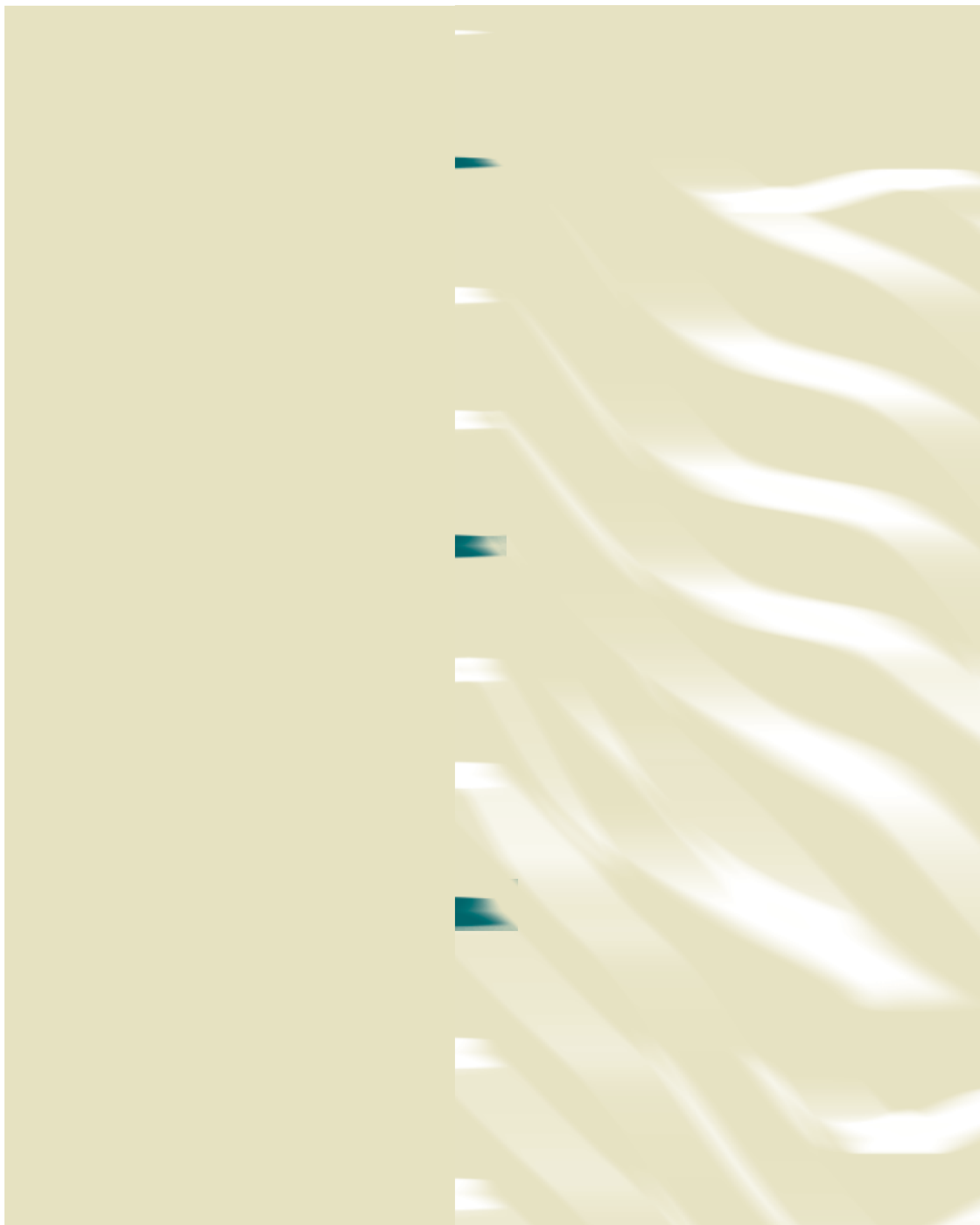
Beyond the culture of poverty and limited education, the cultures associated with race and immigration status also affect dental service utilisation in Quebec. In the study of children aged 5-8 years, children of immigrant families who had been in the country more than 5 years were twice as likely as non-immigrants to consult the dentist with symptoms only (rather than for regular screening visits) and children of immigrant families who had been in the country less than 5 years were seven times more likely than non-immigrant children to consult with symptoms only⁸. Similarly, in the adolescent study, black children and children of recent immigrant families were less likely to have consulted a dentist during the last year⁷.

Summary of the determinants of dental service utilisation in Quebec

The most consistent determinants of dental service utilisation in Quebec and elsewhere in the western world are income and education level. However, in addition to these factors, and having an important independent effect across the age groups recently studied, are factors such as the perception of need, fear, immigrant status, disability and to a lesser extent geographical place of residence.

Part II:

SOME PROGRAMS TO IMPROVE
ACCESS TO DENTAL CARE FOR UNDER
PRIVILEGED GROUPS:
EXAMPLES TAKEN FROM QUEBEC,
CANADA AND THE USA



The following is a description of a number of programs set up throughout North America, all with the goal of providing dental care to those whose access is limited, principally for financial reasons. Examples have been taken from throughout North America because, although the details of the organization and financing of dental services in Canadian Provinces and American States differ, the large majority of dental services provided in all North American regions is financed through the private sector and so results in the same problems of access to care for the under privileged.

In an attempt to clearly describe the different programs that exist in North America, they have been categorized into one of three types of program:

- ▶ those based on a system of referral to existing private dental offices;
- ▶ those using dedicated mobile facilities; and
- ▶ those involving dedicated fixed dental clinics.

Within each of those categories, a number of existing programs will be described always using a template that includes the program name and contact information, the program goal(s), the clientele, the providers and their roles, means of administration, funding and miscellaneous other comments concerning the program.

PROGRAMS BASED ON REFERRAL

These programs tend to use existing infrastructure for the provision of dental care, whether it be private dental offices, community clinics, hospitals and/or university clinics, but they depend upon a dedicated administrative system to ensure that screening, referral and payment for the services are coordinated. These programs have the advantage of relatively low set-up costs because existing facilities are being used and often have good accessibility because a network of local dentists at various sites will be involved. However, they depend on very good coordination of the different services involved and the cooperation of the dental providers. Examples of such programs follow.

Programme d'aide dentaire l'Aident (Saguenay-Lac-Saint-Jean)

Contact information

- ▶ Dr René Larouche, dentiste-conseil, Direction de la santé publique, Agence de développement de réseaux locaux de services de santé et de services sociaux du Saguenay-Lac-Saint-Jean.
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Program goals

- ▶ To educate the client on how to prevent dental problems.
- ▶ To reinforce the clients' oral hygiene habits.
- ▶ To facilitate the client taking control of his/her oral health.
- ▶ To financially support the client in obtaining necessary dental treatment.

The clientele

- ▶ People aged 10-21 years of age and in an educational establishment in the territory of the CLSC concerned (those aged 10-17 must be in full time education and those aged 18-21 need to be in post-secondary education).
- ▶ Those living in a family whose income is below the poverty line defined by Statistics Canada.
- ▶ Those who present with one or more problems that need treatment.
- ▶ Those with no public or private health insurance.
- ▶ Those without social welfare benefits.
- ▶ Only one course of treatment is provided (i.e. a client can only use the service once).

Providers and their roles

- ▶ *CLSC hygienists.* All people requesting treatment under the program are referred to a hygienist working at one of the program CLSCs. This hygienist evaluates the need for dental treatment, refers the client to a dentist for an estimate of treatment required and costs, approves this estimate, performs education and performs a follow-up.
- ▶ *Private dentist.* Provides a treatment plan and cost estimate and then the treatment once approved.
- ▶ *Child/parent.* The child (with parent as necessary) presents to CLSC hygienist, locates the dentist and pays for associated costs (transportation etc.), pays for services incurred before presenting to CLSC and may need to pay for some of the treatment.
- ▶ *Committee L'AIDENT.* Ensures eligibility of client for program, ensures sufficient funds available, refers to a dentist if required and prepares an annual budget.

Administration

- ▶ Mostly CLSC office and hygienists.
- ▶ Committee L'AIDENT which comprises two hygienists, one member at large, a dentist and someone involved in planning the city budget.

Funding

- ▶ Dependent on donations and CLSC budget.
- ▶ Will give up to 300\$ per treatment but remainder needs to be paid by client.
- ▶ Dentists may do work for free or at lower costs.
- ▶ Fundraising is through social clubs, the local Chamber of Commerce, the Municipality and private dentists.

Comments

- ▶ Limited clientele makes this possible but may encounter budget problems if expanded (CLSC could not afford to do this with everyone).
- ▶ No limits on treatment.
- ▶ Administration and organisation of the program (visit hygienist – recommendation – dentists – estimate – hygienist receives estimate – she and committee approve – back to dentist – follow up with hygienist) would make it difficult on a larger scale.
- ▶ Promote service at social service offices (welfare office, Salvation Army family service office, Unemployment office), use media, TV, radio, paper, flyers in places frequented by target clientele, advertise at schools in school paper, tell church groups, school administrators, guidance counsellors.
- ▶ Local dentists must be made aware of the program and given contact numbers for information.
- ▶ Do not marginalize service by placing recipients in awkward situation.

National Foundation of Dentistry for the Handicapped (NFDH) (USA)

Contact information

- ▶ www.nfdh.org
- ▶ Dr. Larry Coffee, program director
- ▶ Rory Franklin, communications (303) 534-5360

Program goals

- ▶ Help the most vulnerable in society.
- ▶ Enlist local organization into national program.
- ▶ Donated Dental Services (DDS). Through this main program of NFDH, disabled, elderly or medically compromised patients are linked with dentists in their communities to receive free comprehensive dental treatment, including prosthetics.
- ▶ Dental House Calls. A cadre of dedicated volunteer dentists treat patients in nursing homes, community mental health centres, special education centres, residences for the homebound, and facilities serving people with developmental disabilities, by transporting mobile dental equipment in a van to these special sites. Programs located in Colorado, New Jersey and Illinois.
- ▶ Bridge (Campaign of Concern). Bridge staff offers in-service training to nurses, teachers, case managers, residential staff, and parents of adults with developmental disabilities to help improve oral hygiene and to follow up with routine dental care. Programs located in Colorado, New Jersey and Oregon.

Clientele

- ▶ Anyone who cannot afford dental care and who has a disability (loose definition; can be old age).

Providers

- ▶ local dentists free of charge;
- ▶ local dental laboratories;
- ▶ administrative staff;
- ▶ social workers.

Administration

- ▶ Through paid staff at a national headquarters in Colorado (staff of 10).

Funding

- ▶ Dental care free from participating dentist.
- ▶ Laboratory bill normally donated as well.
- ▶ State governments give grants.
- ▶ National money from the National Institutes of Health and American Dental Association.
- ▶ On a local level, many donations from local associations and special interest groups.

Comments

- ▶ Works well because it is a national program that uses local facilities.
- ▶ Also dentists prefer working in their own office (with their own equipment and in their own time).
- ▶ Start-up costs are lowered.
- ▶ Eliminates geographic access barriers.

D DENT Oklahoma (USA)

Contact information

- ▶ Shirley Harris (405) 424-8092 or 1 800 522-9510

Program goals

- ▶ To treat those who cannot afford treatment and who are over 60 or who have a disability.

Clientele

- ▶ Over 60.
- ▶ The developmentally disabled.

Providers and their roles

- ▶ *Dentists.* During the existence of the program, 400 volunteer dentists state-wide have treated in excess of 5,050 patients, donating dental services valued at nearly US\$2.2 million.
- ▶ *Dental laboratories.* During the same period, over 35 dental laboratories across the State have contributed over US\$38,773 in services to support the D-DENT program.
- ▶ *Health educators.* D-DENT also began a new program in 1999 to provide oral health instruction and emphasize daily dental care to the clients and caregivers of the elderly. This preventive education program provides oral-care kits and denture-care kits for the clients. The program is designed to compliment D-DENT's comprehensive dental services by working to prevent decay and extend the life of prosthetics.

- ▶ *Administrative staff.* Coordinators take applications, screen clients, match dentists with patients and follow-up with both patients and dentists. They will also refer patients to appropriate locations for free emergency dental treatment.

Administration

- ▶ Four paid coordinators.
- ▶ To start, a card is sent to all dentists and contacts are made with local dental associations. Dentists are asked if they will volunteer, what type of patients they will take, how many and when will they take them.
- ▶ Applications for services are received from nursing and group homes other organizations and individuals.
- ▶ After review of the application, if accepted the clients are put on a waiting list.
- ▶ Clients are matched with dentists in their own county.
- ▶ Also an education program where hygienists go into group or nursing homes and teach people how to look after teeth/dentures. They visit twice a year.

Funding

- ▶ From the State legislature.
- ▶ Grants from various local organizations.

Comments

- ▶ Similar to NFDH.
- ▶ There are limits on the number of times the clients can use the program.
- ▶ Dentists agree to a course of treatment and that is all they are required to do for free. The foundation coordinators then remind patients that they will have to pay for some treatment later, and remind them to save some money.
- ▶ Follow up with dentist and patient and if patient is not complying, then they will be cut from the program.

PROGRAMS BASED ON MOBILE SERVICES

These programs use dental facilities in a truck and/or portable dental equipment that can be transported and set up at different sites. Unlike programs based upon referral, these “mobile services” tend to target regions or specific sites where the need for services offered by the program is high, visiting them and offering services to all who want them and who fit the criteria for the program. These programs have some costs involved in setting them up (depending upon the type and quantity of equipment to be used e.g. mobile clinic in a truck or just mobile chairs) but their major advantage is their flexibility and versatility for use in many different settings and accessing many groups who normally rarely or never use the dentist. The main disadvantage of mobile clinics is that, again depending upon the type and quantity of equipment available, the types of services provided are often somewhat limited compared to the other two systems. Examples of such programs follow.

McGill University Dental Outreach Program (Montreal)

Contact information

- ▶ Dr. Michael Wiseman, Director
(514) 398-7203 ext. 00048
- ▶ Judiann Stern, Co-ordinator
(514) 398-7203 ext. 00048

Program goals

The overall mission of this program is to provide a model for developing a permanent and effective dental service throughout Quebec for those people whose access is limited due to financial and/or physical reasons. More specific aims are:

- ▶ To provide free dental care to groups in Montreal who have limited access to dental care for financial or physical reasons.
- ▶ To provide McGill University dental students with an educational experience in alternative means of delivering dental care.

Clientele

- ▶ Low socio-economic status groups such as the homeless, the working poor, the unemployed, the disabled and recent immigrants.
- ▶ The program visits Montreal sites such as Dans La Rue, Sun Youth, Maimonides Hospital Geriatric Centre, Mission Brewery, Norwood Seventh Day Adventist Church, St. Columba House, Santropol Roulant, and womens' shelters.
- ▶ People of any age identified by these organizations as not being able to afford dental care are accepted for treatment.

Providers and their roles

- ▶ *Dentists.* Dentists, principally from the Faculty of Dentistry at McGill University provide care either through volunteering their services directly to the Outreach clinic or as specialists through providing free care to clients referred to them from the Outreach clinic.
- ▶ *Dental assistants and hygienists.* Again staff principally from the Faculty of Dentistry volunteer their time for the Outreach clinic.
- ▶ *Dental students.* Each student must attend the clinic at least once a year during their course and may volunteer to attend more often if they wish. At the Outreach clinics, students both assist qualified dentists and perform treatments under the supervision of Faculty dentists.
- ▶ *Administrative staff.* One part-time coordinator plus a management committee.

Administration

- ▶ Main administration performed by the Director, Co-Director and Coordinator.
- ▶ Nine member Management committee composed of dental personnel and 3 community leaders who oversee the planning, budget, and fundraising.
- ▶ There are outreach clinics held on 15-18 evenings at community centres throughout the city from September to June.
- ▶ There are also three all-day clinics a year held at the Montreal General Hospital dental undergraduate clinic.

Funding

- ▶ Funding is non-permanent, is sought from a number of sources and varies from year-to-year according to what can be raised.
- ▶ During the four years of the program's existence, funding has been raised through various Foundation donations, fundraising events, in-kind donations of equipment, materials and supplies, a Provincial government grant and the Faculty of Dentistry.

Comments

- ▶ All services are provided free of charge.
- ▶ All clinicians and assistant staff volunteer.
- ▶ The biggest challenge is in providing referrals to patients whose needs exceed the capability of the program treatment services.
- ▶ Clinics are set up both in community centers and also at an established clinic site to provide maximum care.
- ▶ Only the director and the coordinator receive a salary.
- ▶ The inclusion of dental students in the program is an integral part of the project.

Projet clinique dentaire mobile (Fondation de l'Ordre des dentistes du Québec)

Contact information

- ▶ Personnel at the Fondation de l'Ordre des dentistes du Québec.

Program goals

- ▶ To provide oral health promotion.
- ▶ To provide oral health education.

- ▶ To provide dental screening.
- ▶ To provide facilities for continuing professional education.

Clientele

- ▶ No particular groups, although the disadvantaged in Quebec are targeted.

Providers and their roles

- ▶ *Dentist.* A dentist is the director of the program, although no dental treatment takes place as part of the program. Dentists and other dental professionals use the facilities.
- ▶ *Administrative staff.* These personnel organise the use of the facility.
- ▶ *Maintenance.* A driver is employed full-time to transport the vehicle facility around Quebec as needed during the months of April to October when the vehicle is in use.

Administration

- ▶ The program concerns a truck that can be booked and used by diverse groups throughout Quebec who want to use that facility to fulfil one of the program's goals.
- ▶ Through the Fondation de l'Ordre des dentistes du Québec.

Funding

- ▶ Through the Fondation de l'Ordre des dentistes du Québec and financial and in-kind donations from a number of private companies.

Comments

- ▶ No dental treatment is provided.
- ▶ The vehicle is available free of charge for use to all dental professional and other groups wishing to use it for oral health education etc.
- ▶ The truck is not equipped to work in the winter in Quebec.

Dentistry With Heart Mobile Program (Santa Clara, California, USA)

Contact information

- ▶ Dr. David Lees (408) 879-8420
- ▶ www.healthtrust.org

Goals of the Mobile program

- ▶ To screen, diagnose and treat children who would not otherwise have access to quality dental care. Fairly high level of service provided, but they try to get other dentists to see children who need major work done so as to not tie up their resources too much on one child. Sealants are emphasised.
- ▶ To educate children, their primary care givers and families the value and mechanics of optimal oral health.
- ▶ To provide a team-building experience to local dental practitioners and their staff utilising the latest equipment and techniques to provide care to disenfranchised populations.
- ▶ To build lasting relationships and goodwill throughout Santa Clara County.

Clientele

- ▶ Children at school.
- ▶ The elderly in seniors' homes.

Providers and their roles

- ▶ *Paid full time administration staff.* They identify schools in need and arrange visits to those schools with the school board. They also receive referrals of children in pain from school health nurses and children identified as needing dental check ups and schedule appointments as necessary.
- ▶ *Full time dental assistants.* Act as dental assistants and health educators.
- ▶ *Dentist.* Rotation of eight dentists who are paid on a fee-for-service basis, although less than they would make in private practice. One or two work at one time.
- ▶ *Volunteers.* Volunteer dentists may work when they want.

Administration

- ▶ Through full time staff at the headquarters of the Health Trust, which is a US\$120,000,000 Foundation whose aim is to improve health in the needy population.

- ▶ Coordinator to send mobile unit to schools.
- ▶ Volunteer coordinator to arrange for volunteer dentists to help with clinic.

Funding

- ▶ Through the Foundation and through grants for specific projects within the remit of the Foundation.
- ▶ Californian State government.
- ▶ In-kind donations of supplies, equipment, etc.
- ▶ Small fee to clients (US\$2-5).

Comments

- ▶ The best way to conveniently access children is when they are at school. Some children may not be receiving dental care because of transportation or language problems experienced by their parents, or because the family is homeless. Moving a well-equipped dental clinic from school to school increases the ability of the Program to interact with more children who are in need.
- ▶ The mobile clinic has been designed and built for versatility so that it can also be used for primary care. It can also serve as a triage unit in the event of a community disaster, such as an earthquake.
- ▶ By necessity, much of the treatment performed in the program is triage, emergency relief of pain and infection and reparative in nature. The approach to all children, however, involves education, risk assessment, prevention, preservative services and referral for complex restorative cases. Any movable clinic has obvious limitations in the repeated sequential treatment demanded by traditional dentistry.
- ▶ The treatment philosophy of the program centres on the concept of accepting dental caries as a chronic infectious and curable lifestyle disease that has reached epidemic proportions in children of lower socio-economic income levels.
- ▶ The overwhelming need for care among these at-risk children necessitates a time and cost effective approach to management. Treatment protocols, widely accepted for this population, have been adopted that will maximise the impact of our limited contact with these undeserved, high-risk children.

University of Southern California (USA)

Contact information

- ▶ Dr Charlie Goldstein (213) 740-1423
- ▶ www.usc.edu

Program goals

- ▶ To provide dental care (prophylactic and restorative care and education) to low income children in California and Mexico.

Clientele

- ▶ Children only. The USC Mobile Clinic treats only those children with the most urgent needs.

Providers and their roles

- ▶ *University dentists.* Volunteer dental faculty staff from the University of Southern California (USC) and the University of California at Los Angeles (UCLA) perform and supervise treatments.
- ▶ *Community dentists.* Following each clinic, the sponsoring organization receives a summary describing the treatment rendered and any further treatment needed for each patient. Dentists within the community provide follow-up care at each location.
- ▶ *Students.* Dental students from USC and UCLA and dental hygienist and assistant students from institutions across southern California provide care under supervision.
- ▶ *Administration.* A representative of the sponsoring organization determines patients' socioeconomic eligibility, and a volunteer dentist or nurse classifies their dental need by degree of urgency.
- ▶ *Maintenance staff.* Two paid members of staff are responsible for the maintenance of the vehicles and the dental equipment.

Administration

- ▶ Works on the basis of visits by mobile dental clinics (vehicles) to schools.
- ▶ Through the Faculty of Dentistry at USC.

Funding

- ▶ Funding is non-permanent, is sought from a number of sources and varies from year-to-year according to what can be raised.
- ▶ During the program's existence, funding has been through various Foundation donations, fundraising events, in-kind donations of equipment, materials and supplies, individual donations, State government grants and the Faculty of Dentistry.

Comments

- ▶ The dental school views the program as a good teaching resource to broaden students' experience and instil a sense of community responsibility.
- ▶ 90% of children treated in the program are seeing a dentist for the first time.
- ▶ The American Dental Association refers inquiries about mobile dentistry to the USC Mobile Clinic because it is seen as an expert in the field.

PROGRAMS INVOLVING SPECIAL FIXED DENTAL CLINICS

These programs involve the setting up of fixed dental clinics specifically for the program, rather than using facilities already available or using mobile dental clinics and equipment. They have the advantage of being potentially self-sufficient in that they can be equipped to provide all the care necessary in the program but they have the disadvantage of being relatively costly to set-up and have limited accessibility due to their often being on one fixed site. Examples of such programs follow.

Université de Montréal/ CLSC des Faubourgs Clinic

Contact information

- ▶ Project Director: Dr. D.Kandelman
- ▶ Project coordinator: Dr. Denys Ruel, Université de Montréal (514) 343-6111 ext. 2877

Program goals

- ▶ To improve the oral health of the clients taking into account their culture.
- ▶ To provide preventive and restorative dental care to young homeless people in Montreal.

Clientele

- ▶ Young people (aged 14-25 years) living full time or partly on the streets of Montreal.

Providers and their roles

- ▶ *Dentists.* Two dentists perform and supervise dental care provided to the clientele.
- ▶ *Dental students.* Dental students from the Université de Montréal provide dental services.
- ▶ *Other health care professionals.* Physicians, nurses, psychologists and social workers are available at the clinic site (CLSC des Faubourgs, Montreal) giving other health and social services to the clientele.
- ▶ *Administration.* Performed by permanent staff at the Faculté de médecine dentaire, Université de Montréal and the CLSC des Faubourgs.

Administration

- ▶ The CLSC where the clinic takes place is in the downtown area of Montreal where a large number of the target population live.
- ▶ Many other health and social services targeted to homeless youth in Montreal are already in place at the CLSC des Faubourgs.
- ▶ The clientele visit the CLSC for other health and social services and are given the opportunity to have a dental consultation.
- ▶ The CLSC is currently furnishing a dedicated dental office for this program.
- ▶ The CLSC sends health and social workers on to the street to talk with the target population there. Those that need dental treatment and want it are told to go to the CLSC des Faubourgs.
- ▶ Clients who need it are referred to l'Hôpital Notre-Dame for more complex treatment.

Funding

- ▶ Through the CLSC budget.
- ▶ Through government funding to the Université de Montréal summer clinic.
- ▶ Through donations from various organisations.
- ▶ Services are free for the clientele.

Comments

- ▶ This is a young program that only started in 2000. However, it is very popular with its clientele and is attempting to build capacity to increase the treatment services available.

Mount Carmel Clinic, Dental Program (Winnipeg, Manitoba)

Contact information

- ▶ Ms Lori Black, United Way Clinic (204) 582-2311

Program goals

- ▶ A non-profit accredited health clinic to create and promote a healthy inner city community.

Clientele

- ▶ The “working poor”, unemployed and immigrants of any age (eligibility is determined by net income and number of dependents).
- ▶ Those receiving social assistance or who have access to dental care through Native benefits are excluded.
- ▶ Nobody would be turned away if they need treatment.
- ▶ Patients are referred from the health services of Mount Carmel Clinic.

Providers and their roles

- ▶ *Program manager.* Administers all aspects of the program.
- ▶ *Other staff members.* A receptionist, dental assistants, two dental therapists and a dental hygienist are paid staff.
- ▶ *Dentists are hired by contract.* One dentist from the University of Manitoba works at reduced pay one day/week. They provide dental treatment and supervise students.
- ▶ *Students.* Dental and dental hygiene students rotate through the clinic. Students provide supervised treatment and assist.

Administration

- ▶ A fixed three-chair dental clinic is situated in the Mount Carmel Clinic.
- ▶ The clinic is open five days a week.
- ▶ The clinic provides diagnosis, radiology, preventive and restorative care, prosthetics, endodontics and extractions and refers patients to local specialists or the University of Manitoba dental clinic by agreement.

Funding

- ▶ Winnipeg Regional Health Authority.
- ▶ Community funding through United Way.
- ▶ Clients give an obligatory contribution of US\$20-\$30 based on a sliding scale for each visit regardless of the treatment provided. Those who cannot afford to pay are charged US\$5.

Inglewood Children's Dental Center (California, USA)

Contact information

- ▶ Dr. Randy Gates (310) 419-3000
- ▶ client.regencyweb.com/tcdc/overview.htm

Program goals

- ▶ Provide dental care for children whose parents cannot afford it.
- ▶ Promote oral health.
- ▶ Train paediatric dentists.
- ▶ Private sector prototype for other programs.
- ▶ Mission statement: “To treat kids who would otherwise not be treated”.

Clientele

- ▶ Children up to 18 years of age with no access to State funding. At least one parent must be working (if neither parent works, children will have State funding for dentistry).
- ▶ Eligibility determined by parent's tax return.
- ▶ Proof of California residency.

Providers and their roles

- ▶ *General dentists.* One paid part-time dentist plus volunteers (25 dentists give 150 days per year). They provide treatment and student supervision.
- ▶ *Specialists.* One orthodontist (salary paid mainly through the University of Southern California) plus an orthodontics resident.
- ▶ *Hygienists.* They provide dental education for the children and their parents.
- ▶ *Administrative staff.* Two receptionists administer the clinic.
- ▶ *Assistants.* Five dental assistants.
- ▶ *Students.* Dental and dental hygiene students.

Administration

- ▶ Organised through a Board of Directors comprising dentists, local business leaders, and presidents of supply companies.
- ▶ Normal dental office administration.

Funding

- ▶ All private.
- ▶ Fees are 10-15% of costs of services provided.
- ▶ Money raised through contracts, rental income (of offices to other dentists), continuing education to dental professionals.
- ▶ One day a week a private dentist comes in to treat adult patients charging a normal fee but that dentist gets 30% and the rest goes to the clinic.
- ▶ To help sustain itself and because the clinic used to be a private clinic, adult patients (those who used to go to the clinic – no new patients) are also seen one day a week.
- ▶ Grants from foundations, private donations, donations in-kind, fund-raising events.
- ▶ Some money from USC dental school as it is an important part of dental education.

- ▶ Treatment provided by the orthodontists generates a profit that is put back into the clinic.
- ▶ Parents are asked to pay US\$25. If they cannot afford it, their child will be treated by one of the volunteers and parents will be asked to volunteer time to the clinic.

Comments

- ▶ Expensive to set-up but equipment excellent.
- ▶ Proving more and more difficult to raise funds because of lack of novelty and increasing competition for charitable monies.
- ▶ Depends upon two grant writers for big funding applications.
- ▶ Also have a school screening program focused on dental education.

Summary of the advantages and disadvantages of the three types of program

Referral-based system

Advantages

- ▶ Uses existing facilities so costs (both treatment and indirect facility costs) are reduced.
- ▶ Use of existing facilities also means that more complex, specialised equipment and treatments can be made available.
- ▶ Engages local dentists who feel part of the solution rather than alienated (not threatened by a subsidised, salaried service).
- ▶ Assuming a number of dentists in the region agree to participate, geographical access is improved.
- ▶ Depending upon the exact nature of the program, the referral system often involves health and/or social services other than dental.

Disadvantages

- ▶ Administrative complexity.
- ▶ Dependent upon many dentists volunteering for the program.

Mobile system

Advantages

- ▶ Improves access for groups that are unable (e.g. the physically disabled) or unwilling (e.g. those from very different cultural backgrounds) to use

conventional dental services by going to those groups rather than waiting for them to come to the service.

Disadvantages

- ▶ Depending upon the nature and quantity of the mobile equipment, the set-up costs can be substantial.
- ▶ The types of services are often limited by what can be provided in a mobile clinic.
- ▶ Mobile clinics have special maintenance requirements above and beyond those of normal clinics.

Dedicated fixed clinic

Advantages

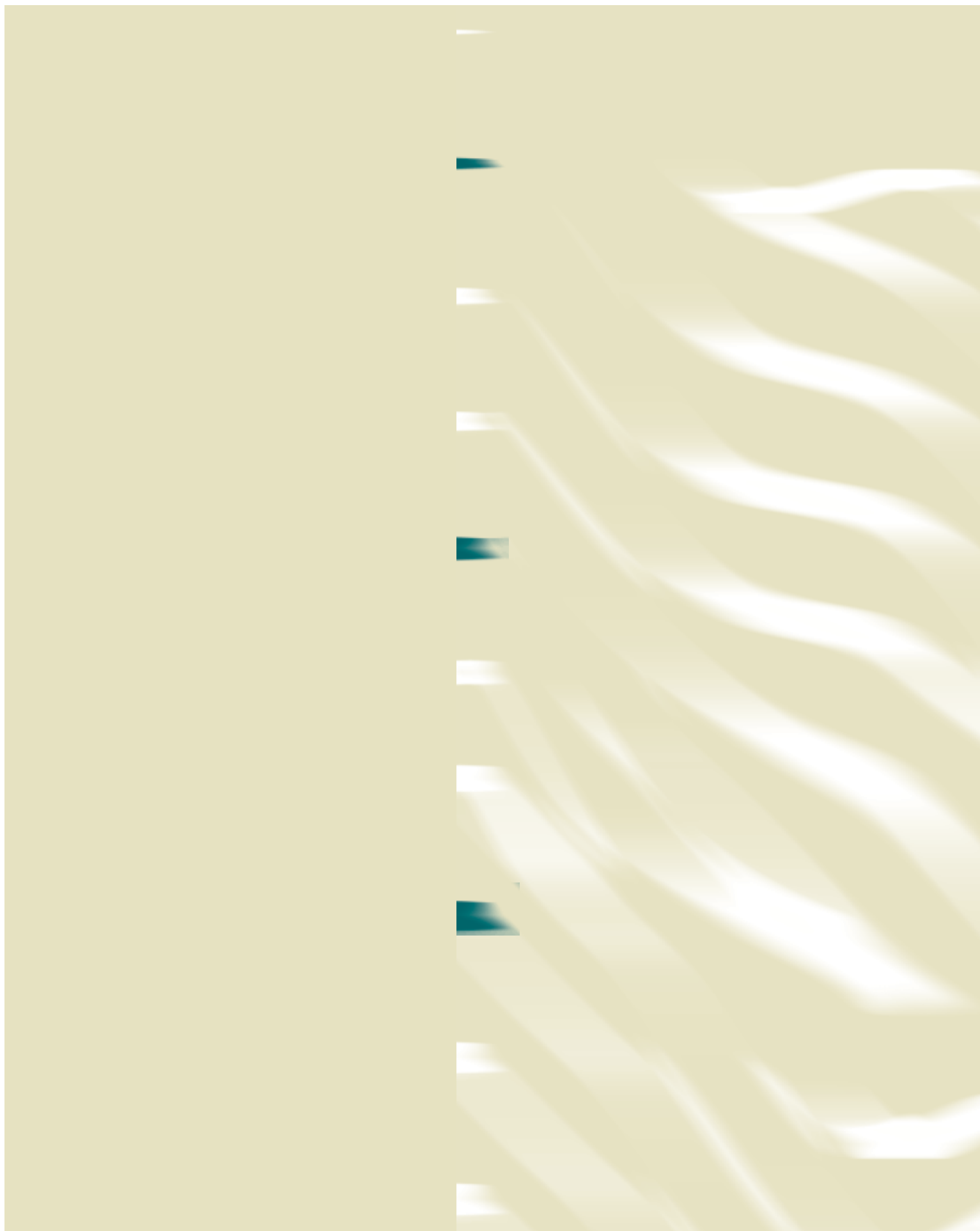
- ▶ As a dedicated clinic, it can be set-up to provide all the services desired rather than depend upon what already exists or be limited by mobile facilities.
- ▶ The facilities can be rented to other providers to raise money if desired.
- ▶ Depending upon the site for the dedicated service, it can be integrated with other health and social services for the target population.

Disadvantages

- ▶ Set-up and maintenance costs are substantial.
- ▶ The (normally) one fixed site limits accessibility geographically.

Part III:

ELEMENTS NECESSITATING SPECIAL CONSIDERATION



In this final section, we emphasize those issues that need to be considered explicitly when deciding what sort of program to organize. Consideration of the advantages and disadvantages of all of these elements is essential if a successful program is to be developed and maintained. The elements are presented in no particular order and no attempt has been made to prioritize the issues as different organizing groups will have different priorities. Elements for special consideration are as follows.

WHAT TYPES OF STAFF ARE REQUIRED ?

When considering what types of staff are required for the program, it is essential to consider, among other things, the goals of the program, the versatility of the staff to be engaged (i.e. their ability to perform more than one role) and whether any of the staff types are already installed at centres or in organizations that one envisages using in the planned program.

Dentist

To establish a successful program to address the dental needs of the under privileged, if one of the goals is to provide dental treatment, one or more dentists is essential. It could also be argued that even if treatment was not a goal, a qualified dentist is necessary to advise on the other elements of oral health care to be provided by the program. All the programs we have reviewed have at least one dentist involved and most have several or many.

Dental hygienist

The use of dental hygienists in these programs is more variable. If a goal of the program is to provide scaling, root planning and educational services, then dental hygienists are well qualified to perform those services. However, it needs to be recognized that dentists can perform all those functions and if dental students are involved, they could also fulfill those roles. However, in Quebec, dental hygienists have the major advantage of being dental professionals who are already available in many CLSCs, if the program envisaged using these centres for any role (as is the case for the Programme d'aide dentaire l'Aident). Finally, if the dental professional staff is to be paid, the salary of dental hygienists is less than that of dentists.

Dental assistant

The role of dental assistant in these programs is very important, especially as often, the dental treatment is performed at sites and using equipment and materials concerning which the dentist performing the dental treatment is not familiar. There is no doubt that a dental assistant increases enormously the efficiency with which a dentist can work, therefore increasing the number of patients that can be cared for, if that is desired. People who are knowledgeable in disinfection and sterilisation procedures are also essential for all services and again this is important when the dental care being provided is so in a non-dental and/or non-clinical site, as is often the case when mobile dentistry is used. However, the role of dental assistant can be fulfilled by dentists and dental hygienists and appropriately trained dental students.

Administrative staff

The good organization and administration of any program is essential if the program is to be effective in achieving its goals. Basically, there are three administrative roles that need to be considered, all of which could be performed by people doing other work within the program if necessary. Firstly, a clinic administrator is required to perform the micro-management of each clinic. This person needs to ensure that the clinic reception and timetable function well and that the dental materials and equipment are available to ensure the smooth running of the clinic. Secondly, a program administrator is required to perform the macro-management, organizational role for the whole program. This person coordinates the organization of the program including the staff involved, where the work will take place and how the patients will get to that site. Linked with this organizational role is the third administrative role, that of the financial administration of the program. Whatever the size of the budget for the program, a good financial administration of the program is essential to ensure the most efficient use of resources in what is an under-resourced domain of dental care.

Equipment maintenance staff

Dental equipment requires maintenance using appropriately trained staff. In addition, if the equipment is for a mobile clinic, there is the additional burden of maintenance associated with transporting, installing and uninstalling the equipment, plus the maintenance needs of a truck if this is purchased to transport the equipment or is used to install a clinic. The program Dentistry With Heart employed two people for maintenance of all equipment involved (dental and transport) but most programs pay for maintenance staff as required or receive such work free as a donation of “in-kind” work. The need for permanent maintenance staff depends upon the size of the program and the quantity of equipment.

Students

Dental professional students (i.e. dental, dental hygienist and dental assistant students) are used in several of the clinics described in the previous section. They have the advantage of often being numerous, well-trained, well-motivated and cheap or free to employ. However, there is one major issue that needs to be considered when deciding whether to involve students or not: as students, they need appropriate supervision. The use of students also implies educational goals for the program in addition to the professional service goals already implicit in developing the program. It is important to recognize that educational and service goals are different and to explicitly decide where the priorities lie when conflicts between the two goals arise. For instance, students will almost certainly provide a slower, less efficient service than qualified personnel.

USE OF PAID VERSUS VOLUNTEER STAFF

Many programs rely heavily on volunteer staff and they work reasonably well doing that. Volunteers are cheap but they tend to be less reliable than paid workers. This can work at all levels of the program. Volunteer program organizers are often highly motivated and committed but the problem comes when these individuals decide to stop fulfilling that role and replacement can be extremely difficult. At this point, the existence of the program may be questionable just because there is nobody to replace an essential volunteer. At a more routine level, finding volunteers to work in the clinics and to fulfill other important roles is often an on-going problem. Most of these problems are prevented by paying staff. Paid staff are more reliable and take more responsibility for the necessary work. They also tend to have a greater investment in the success of the program. The majority of programs use a paid administrative officer as a minimum because of the importance of this role and the difficulty in finding someone to put in the necessary time and effort for this role if they are a volunteer. Payment of remaining staff, at whatever level varies enormously from program to program and will depend upon local financing and priorities.

INVOLVEMENT OF LOCAL DENTISTS

It is important that a program does not alienate local dental health professionals because without their cooperation, the program is much less likely to be effective. Some of the local professionals are very likely to be needed for the program either to play a direct role or to cooperate and as a minimum not to prevent the smooth running of the program. In this context, there is often a strong perception among local dentists that a subsidised program of whatever sort is providing competition for their clientele. With the target of these programs often being the under privileged who cannot afford normal dental care, this is perception may or may not be a true reflection of the reality, nevertheless, if good participation and cooperation from local dental professionals is required, the perception needs to be dealt with.

It is also very important to recognise that many dentists provide free dental care or care at reduced fees on an *ad hoc* basis for their local clientele⁴⁶. However, this phenomenon is not publicised very much because dentists understandably do not want every patient in their clinic demanding free or reduced-fee care. This *ad hoc* provision of benevolent work by dentists independent of any programs is the reason for which the “referral-to-existing-services” system is more popular with most dentists. Such a system formally recognises and coordinates something that is already happening on an individual, informal basis.

INVOLVEMENT OF OTHER HEALTH AND SOCIAL SERVICES

The involvement of other health and social services has the enormous potential cost-saving advantage of using resources that are already installed and paid for. This works for staff, infrastructure and equipment and materials. This resource-sharing has two other potential advantages linked with using other extant services: i) if the dental program to be developed is integrated with other health and social services, the provision of those services can be linked with dental care, so the range of services available is increased; and ii) if the dental program is integrated with other services that already provide for the target population, then access to the dental program for a broader section of that target group is likely to be improved compared to a stand alone program. However, one disadvantage in integrating the dental program with other services is that the level of organization will probably be more complex than a stand alone project because the new dental program will have to fit with the organization of these other services.

SOURCE OF FINANCE

As can be seen from the description of the various programs in Section 2, the sources of finance can basically be divided into four categories: i) government; ii) private foundations; iii) donations; and iv) the program clientele. Most programs use a combination of two or more of these sources of finance. Government funding has the major advantage of being the most stable contribution as a commitment to a certain level of funding will tend to be made for a number of years. With private foundations, the stability of the funding can vary enormously. A few programs use funding from foundations whose mission is to provide health care services to the under privileged and as such the funding they receive is both stable and often considerable. However, there are some programs that have obtained foundation money on a one-off application basis. In this respect, this source of money is similar to donations, which tend to be one-off or provided for a short-term period. Donations have the advantage of versatility in terms of type and size but are not a stable source of funding. Donations can be money, equipment and materials, services and time and they can be relatively small or very big. If donations are to be used as a major part of the funding of the program over a long time, then making the program into a charitable organization that can give tax receipts to its donors should be considered. Indeed, for many dental professionals and private companies, the offer of tax receipts for the time or materials they have provided free of charge is an important incentive to providing those things. Finally, some of the programs reviewed charge their clientele some money for the services provided. The quantity of money charged to the clients tends to be small or very small and is only a fraction of the actual costs of the service. Obviously, by definition, the clientele is not a group who can afford normally-priced dental care, so this source of income for the program makes only a minor contribution to its funding if at all. In summary, all sources of funding should be considered, but the stability of that funding is essential if a successful program is to be maintained.

PROGRAM TARGET – WHO GETS TREATED AND WHO DOES NOT?

By definition, this document is discussing dental care programs whose target clientele is those with poor financial resources. If this is the case, then the program will not provide care for everybody, so criteria will have to be written to define who has access to the services provided by the program and who does not. All the programs reviewed in Section 2 had criteria to define their program's clientele. Most programs were targeted at the under privileged of any age or often the young and/or the elderly. Some were very clear, strict definitions, while others were deliberately loose, allowing for a certain degree of flexibility. Defining criteria by which people have access to the program is very important because ill-thought-out criteria can actually exclude some of the potential target group or be humiliating for them to fulfill. For instance, service criteria that require proof of residence exclude the homeless and complex forms for the program can easily intimidate recent immigrants and the elderly. Nevertheless, it is important to consider the extent of the service to be provided and how to limit that service such that those who most need it have access to it. It is also important to consider whether the criteria will be strictly used or whether a certain degree of flexibility will be permitted and how and by whom will the criteria be enforced.

SERVICES PROVIDED

In addition to limiting the clientele who have access to the program, the services provided in the programs reviewed were often limited for reasons of cost, and/or availability of the necessary staff and equipment. These limitations are not mutually exclusive and will interact with other aspects of the program such as its goals, the available staff and the facilities.

Cost limitations

The most obvious potential limit to services provided is funding. Assuming that funding somehow limits available services, then it has to be decided whether it is the type and/or quantity of services that will be limited. Some services may be considered expensive and unessential with respect to the program goals and so excluded on this basis. As an alternative, a broad range of services may be offered but the quantity of these services provided may be reduced. This reduction can be done by reducing the number of clients served, the number of clinics available or simply capping the number of a given service that are provided over a budgetary period.

Staff limitations

Services will be limited by the type and quantity of staff available. Most programs employ generalist dentists and some form of dental auxiliary as these personnel are able to perform the majority of work required for the least cost. However, the use of specialist dental treatment services is fairly often necessary. Most of the programs reviewed in Section 2 tended to use the services of dental specialists on an *ad hoc* basis as and when they were needed, either agreeing to pay them their normal fee or reaching an agreement with that specialist to do the work for a reduced charge or free. An alternative is to stipulate that such specialist services are not available in the program, although this can be very difficult because of the ethical obligation to treat a client's dental problem once they have been accepted into the program.

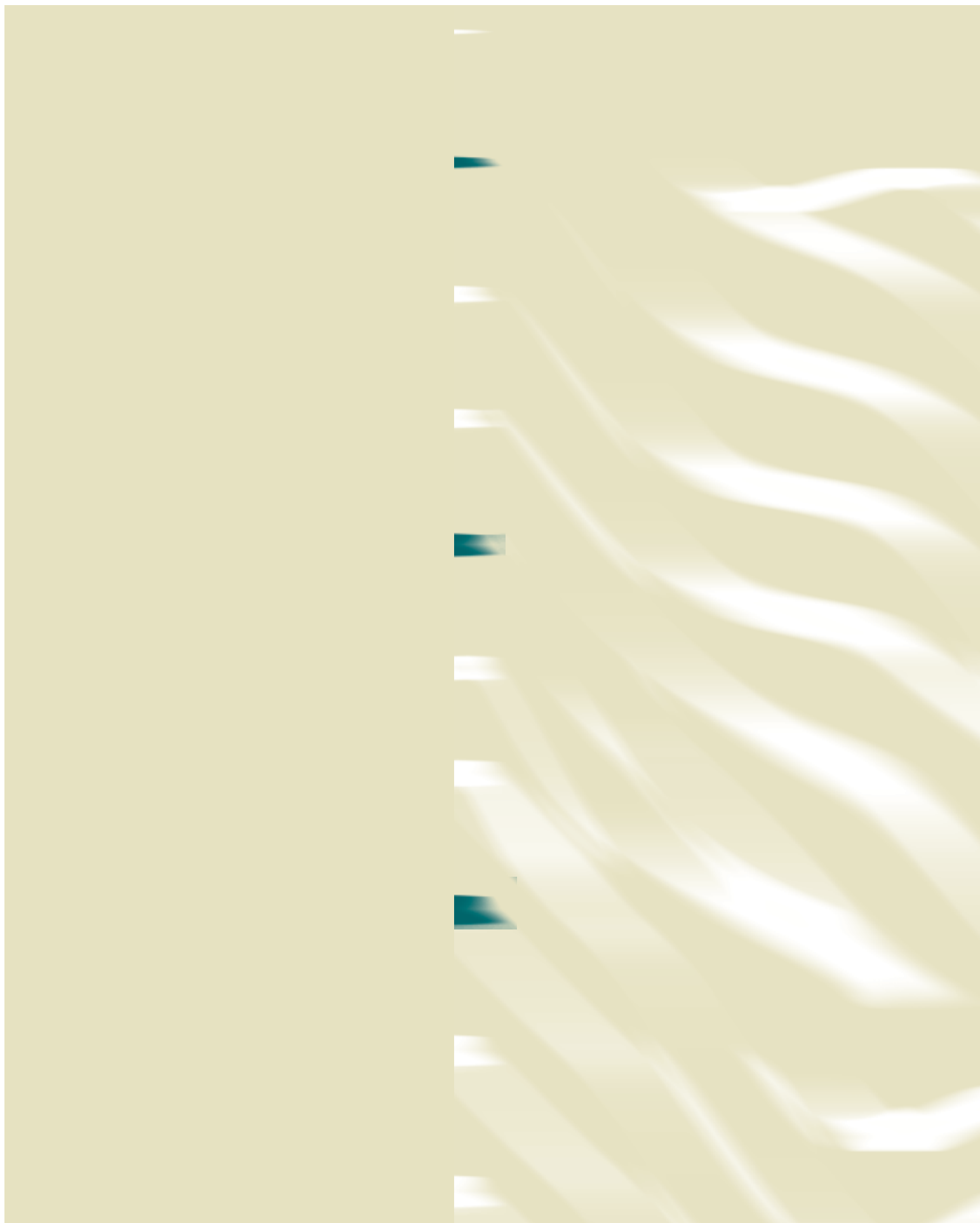
Facility limitations

Services can also be limited because of the available type and quantity of facilities. In most of the reviewed programs, the limits on services provided relate to the availability of specialist facilities such as radiographic equipment and dental laboratory facilities for the fabrication of prostheses in particular. With respect to radiographic facilities, not having them seriously limits the program's ability to provide diagnoses, which in many cases becomes a serious limitation to the ability of the program to provide subsequent treatment services. With respect to the dental laboratory facilities, much like the aforementioned dental specialist services, most programs do not have these facilities as a permanent part of the program but will either refuse to provide care that involves such work or will come to an agreement with one or more local dental laboratories for the provision of services.



Part IV:

RECOMMENDATIONS FOR THE FUTURE



Quebec already has a diverse collection of *ad hoc* programs attempting to deal directly with the problem of access to dental care for the under privileged or providing facilities that could help that situation indirectly. A first step to a better coordinated approach to the problem of dental care for the under privileged in Quebec would be to build on these existing programs and facilities rather than try to develop a new program. As noted above, the existing programs use different systems and can thus be used to complement each other for the differing needs of the under privileged in different parts of Quebec. The second step would be to promote an environment in which the provision of dental care for the under privileged is seen as an important issue by the dental profession so that any programs that are developed are supported by the profession rather than seen as subsidized competition.

With these observations in mind, the authors of this report make the following recommendations

Recommendation 1

The oral health care needs of the under privileged would best be dealt with using a coordinated approach that simultaneously recognises the autonomy of local organisations and personnel in delivering dental care in a locally appropriate manner but ensures that these local initiatives complement each other to provide as many of the target population as possible with appropriate dental care. Examples of such possible coordination include:

- ▶ In Montreal, where mobile and fixed programs already exist, the two could be coordinated to better serve the target population.
- ▶ In large urban areas of Quebec with public transport systems, other than Montreal (e.g. Quebec city, Sherbrooke and Trois-Rivières) pilot projects should be developed to investigate the need for fixed and/or mobile clinics similar to those in Montreal.
- ▶ In the rural regions of Quebec, programs using the Saguenay-Lac-St-Jean “Aident” model could be developed. This referral-to-existing-dentists type system is ideal for rural areas because clients can be referred to dentists working near where they live. A system, similar to the NFDH program in the USA, could be developed, in which a central organisation could coordinate and facilitate a dentist referral system through CLSCs across Quebec.
- ▶ The mobile dental clinic of the Fondation de l’Ordre des dentistes du Québec could be used as part of a province-wide coordinated program of dental care targeted to the under privileged. The vehicle is currently used by a wide variety of organisations and groups for their own local needs. This *ad hoc* use of the facility could continue but it could also be used for a coordinated program of educational and screening services provided to complement the other existing treatment services.

To develop a coordinated approach, a workshop-type meeting should be organised, to which representatives of all interested parties (including, but not limited to, representatives of the target populations, dental professionals, government, CLSCs, university dental faculties, etc.) are invited. The goal of this meeting should be the development of strategies to better deal with the problem of access to dental care for the under privileged in Quebec.

Recommendation 2

A large proportion of funding needed for the set-up, day-to-day maintenance and coordination of this/these program(s) of dental care for the under privileged should come from government so as to ensure their stability. This government funding should be direct but should also involve the use of tax receipts for services, materials and/or equipment provided. The use of such strategies will harness and encourage the provision of services, materials and equipment that are already provided voluntarily or free of charge by many individuals and private companies across the province.

Recommendation 3

A province-wide foundation should also be set up to help provide funding for any program by supplementing government funding. Assuming this foundation had substantial financial resources, it could be used to fund the set-up of special fixed and/or mobile facilities and/or the on-going costs of treatment provided under the program.

Recommendation 4

As part of any new program the integration of domiciliary services should play an important role to ensure that those whose ability to leave their home for dental services is seriously restricted can have access to some form of care.

Recommendation 5

The dental professional educational institutions, in combination with the dental professional licensing bodies and associations, should develop a coordinated program of undergraduate, postgraduate and continuing professional education to promote an environment in which the oral health care needs of the under privileged are better dealt with.

Recommendation 6

Integrated with the aforementioned education programs, a program of research should be developed to evaluate the existing and any future dental services for the under privileged in Quebec.

Recommendation 7

The use of dental professional teaching facilities and the use of students being taught at those facilities should be investigated for integration with any coordinated program for the province.

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