

Dentistry for Mexicans with Special Needs: A Commentary

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There are more than 2 million residents with disabilities in Mexico. Despite national legislation to assure individuals with disabilities needed services, including education and employment, social inclusion of these individuals is difficult since societal views exclude them from functioning as members of a community. While there are no national studies of the dental needs of individuals with disabilities in Mexico, reports of the general population indicate limited use of dental services and the need for increased restorative services. Examples of dental education accreditation standards in other countries are used as models for the improvement in the preparation of dental students to provide services for individual with special needs.

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“Here in Mexico, disability laws are blatantly ignored in much of the country, and many disabled people are denied their right to a ‘normal’ life.”¹

“The disabled are the second group after the elderly perceived as the most discriminated and neglected and bearing more suffering.”²

NUMBERS AND PROPORTIONS

Mexico is a paradox. It ranks among the 15 richest countries in the world, yet it still shows levels of poverty and inequality beyond its level of development. In 2010, its population was estimated at 112.5 million³ with 24 percent living in rural areas. In absolute numbers, Mexico has the largest indigenous populations in the Americas, estimated in 2006 to be 13.5 million persons (12.6% of the total population) and speaking 62 different indigenous languages.

The national life expectancy at birth has increased to 74

years for men and 78 years for women.⁴

As in much of the developing world, detailed knowledge about the numbers and proportion of the population with disabilities in Latin America and the Caribbean is limited. Quantitative data in the region are sketchy, restricted largely by divergent estimates based on the results from a few census and survey reports. The general prevalence rates for individuals with disabilities reported in 2000 included Chile, 4.3%; Colombia, 1.2%; Costa Rica, 9.3%; El Salvador, 1.6%; Paraguay, 1.0% and Mexico, 1.8% (National Health Survey).⁵ However the Mexican national census from the health secretariat, using different measurement standards, placed prevalence rate at 9% using the International Classification of Functioning disability and health (ICF) developed by the World Health organization (WHO).^{6,7}

According to the Mexican census, there were “2.2 million persons living with some type of disability.”⁷ In 2000, three-quarters of the population lived in urban areas⁸ The National survey in 2004 reported a higher disability among females (10.4%) than males (7.1%).⁸ Slightly fewer than half of the total numbers of individuals with disabilities are older adults. Risk factors generally are found in younger males and are attributed to alcohol consumption and its direct or indirect consequences, such as liver cirrhosis, aggressions and homicides, automobile accidents. Generally accidents create some type of short or long term motor disabilities. Among women, old age and its consequences generally are associated with many disabilities, including osteo-arthritis, cataracts and depression. Most frequent are motor disabilities, followed by visual impairment, auditory, intellectual and language limitations.⁹⁻¹⁰

Compared to other public health problems, decades of road traffic injuries involving children and adults have received little attention in Mexico. More than 4 million accidents occur per year resulting in the death of 24,000 individuals and more than 40,000 persons with permanent disabilities. This mayhem has cost the country 1.2% of its

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Gross Domestic Product.¹¹ There are many factors associated with the motor vehicle carnage, but most important include drinking and driving (60%) excessive speeding (28%), poor infrastructure for pedestrians, distraction, lack of use of seat-belts by children and adults, and limited use child restraints for youngsters (30%).¹²⁻¹³

Perceptions

*“Throughout the Americas, persons with mental disabilities are regularly denied employment, education and housing.”*¹⁴

An extended set of perceptions and attitudes concerning the disabled, “...such as lack of acceptance and respect, low self-confidence, mistreatment, incomprehension, isolation, intolerance, indifference and bad attitudes from others...” pervades the daily lives of individuals with disabilities in Mexico.² All 31 states have laws protecting persons with disabilities, but are generally poorly implemented.^{6,15}

In 2005, the Mexican government carried out the first survey related to discrimination, including the questioning of almost six hundred people with disabilities.¹⁰ Almost one-quarter (23.5%) of Mexicans believe that people with disabilities suffer more because of their condition. This perception ranks second to the view that older people suffer because of their circumstances.

- 22% believe it will be hard for individuals with disabilities to find work.
- 41% believe people with disabilities do not perform as expected.
- 1 out of 3 adults believe that having a child with a disability in a classroom would lower the educational standards for the class.
- 42% of Mexicans believe that it is preferable to hire a person without disabilities.¹⁰

From the perception of people with disabilities

Almost all (95%) of people with disabilities believe they experience discrimination. One-in-three reported they experienced discrimination in the past year.

- 60% feel rejected by society.
- 52% believe that their rights are not being respected.
- 50% believe they cannot play a meaningful role in society.
- 90% believe they have fewer opportunities to get a job. 83% of people with disabilities feel that their condition is associated with less job opportunities because of potential employer concerns that workers with disabilities will be less productive. (The unemployment rate of individuals with disabilities in Mexico is 75 percent. Most of those who have jobs receive little or no monetary remuneration.)
- Three quarters believe that fewer opportunities are granted to them to attend school.

- Most believe that work, school, hospitals and family are the main settings for rejection.
- 33% believe that in a family setting people with a disability are granted less permission for activities, are less privileged, are asked to perform more tasks, are not allowed to study and are required to take care of their siblings.
- 41% believe that their discrimination is fair and their condition will not improve.¹⁰

Education

Almost two-thirds (63%) of children and adolescents with disabilities and 91.3% of the general population between the ages of 6 to 14 attend school. 24% of children and adults with disabilities and 3% of the general population between the ages of 7 to 29 years have never attended school.

- 42.2% of children with disabilities and 4.5% of the general population between 8 and 14 years cannot read or write.¹⁰
- Less than 10 percent of schools in Mexico are accessible to children with disabilities.¹⁶
- 35.5% of the children with disabilities do not attend school or are not promoted to the following grade.

Support services

It is estimated that 1.5 million persons spend time providing care to individuals with disabilities in Mexico.¹⁷ In the year 2000, almost one thousand associations existed to assist people with disabilities.¹⁸ The reality is that the distribution of these organizations is inadequate to meet the needs of this population. For example, 166 organizations are located in Mexico City, while only 6 are in the state of Guerrero. The lack of physical facilities and the inadequacy of funds are ongoing significant problems.¹⁸

In addition, most support services are located in urban areas, forcing people from rural regions to travel long distances to secure needed care. For example, of the 1,000 public hospitals in rural areas, only 152 have rehabilitation services.¹⁸

Poverty

*“Financial problems are the most important factors that affect the psychology of the parents of disabled people.”*¹⁹

Mexico is a rich country by global standards. In 2006, the country ranked 118th among 141 (United States ranked 121) countries with a poverty rate of 13.8 percent (1st was Liberia with the highest poverty rate of 80 percent; 141st was Taiwan with a poverty rate of less than one percent. The world average poverty rate was 32.6 percent.²⁰

However, “in 2002, 10% of the (Mexican) population received 1.4% of the national income, while the richest 10% received 40.5%.”⁴ “Public awareness tends to be limited to

the misapprehension that such widespread poverty is a problem of individuals themselves rather than the lack of an adequate social support system. Awareness of how poverty affects children ...is more limited still.”²¹

Why the concerns for oral health care?

Oral health of children and adults with disabilities can be harsh, from the lack of each individual’s ability to cope with daily tasks including oral hygiene. In some cases it may become the responsibility of a parent to deal with these issues.

The many difficulties faced by millions of individuals with disabilities in Mexico may seem endless. Only 45% of disabled people are covered by social security services.⁸ In such an environment, the need for dental care would at best seem to be a marginal afterthought; especially when only 8.5 percent of all Mexican households in 2000, 4.0 percent in 2002, and 5.0 percent in 2004 had some expenditures for dental services.²² Nevertheless, the needs are real, especially for individuals with special needs. Kozol²³ succinctly summarized the realities of inadequate oral health services for individuals with and without associated disabilities:

*“Children (and adults) get used to feeling constant pain... (from) bleeding gums, impacted teeth and rotting teeth... They go to sleep with it. They go to school (and work) with it...The gradual attrition of accepted pain erodes their energy and aspirations.”*²³

The caries index has dropped in some states of Mexico in the last decades, according to the WHO. This is generally from massive dental education in schools, the access to fluoridated toothpastes and salt fluoridation. The National Caries Survey (2001) (ENCD from its Spanish abbreviation)²⁴ reported great disparities in the DMFT indices. The national mean DMFT index was 1.91. The lowest DMFT (0.62) was reported in the State of Yucatan (south of the country). The DMFT in Mexico City was 3.74 . The northern states (more developed) tend to show a higher DMFT.

A cross-sectional study of 590 adolescents aged 13 to 16 from an urban area of Mexico City showed a DMFT index of 7.3²⁵

Another study showed that close to 50% of the students from public high schools need restorations and /or dental prosthesis .²⁶

As to the primary dentition, Yucatan showed the lowest *deft* index of 0.73 while some states in the Center of Mexico reported a *deft* over 3.0 (Mexico City 3.59 and the surrounding State of Mexico 4.40). The proportion of untreated decayed (D and *d*) teeth in the primary and permanent dentition indices emphasizes the limited availability of dental health services. While no national studies have been carried out in Mexico to determine the oral health condition of individuals with special needs, local studies indicate high prevalence rates of dental caries among the general population of children (as high as 90 percent in the primary dentition and

82 percent in the permanent dentition).²⁷ If little or no treatment is generally offered to healthy children or adults, one can imagine the fate of Mexico’s population with disabilities.

Attitudes

As young men and women train for careers in the dental and other health professions, opportunities for contact with and care for individuals with disabilities are essential if they are to overcome the all too often standard perceptions and attitudes which result in the rejection, exclusion and discrimination against individuals with disabilities. “Only if early contact is established with patients (with disabilities), practical educational strategies are adopted, and the students are provided with information on attitudes about the disabled, will a social model of disability be introduced into the curriculum.”²⁸

Dentists and the treatment of individuals with special needs

Numerous reasons are stated for not treating people with disabilities in private practice, including: “...too much time is required to perform procedures, the patient may have a life threatening medical emergency, funds for treatment are difficult to obtain, procedures are too difficult or there are difficulties of (physical) access to the (operator), the dentists neither received special training, nor have they the special equipment, and they are apprehensive dealing with disabled people, other patients may be offended (e.g. waiting room disturbances) (sic) and these disabled patients usually require hospitalization.”²⁹

Dental school programs

This need for “experience and contact with people with disabilities” was the basis for establishing dental school accreditation requirements to ensure adequate basic science and clinical experience in the predoctoral training programs in many dental schools in other countries. For example in Canada and the United States:

“Graduates must have sufficient clinical and related experiences to demonstrate competency in the management of the oral health care for patients of all ages. Experiences in the management of medically-compromised patients and patients with disabilities and/or chronic conditions should be provided.” (Standard 2.4.1)³⁰

“Graduates must (sic) be competent in assessing the treatment needs of patients with special needs.” (Standard 2-26)³¹

The challenge

The need is for most schools of dentistry to follow the accrediting steps taken by the dental profession in other countries to ensure the adequate basic science and clinical experience in predoctoral clinical programs to prepare

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graduates to provide for the wide range of individuals with special needs. However, developing such an effort is possible only if the profession and the general public can be convinced of the need for these programs. To this end:

- There is a need for a national health survey (including oral health) of people with disabilities with particular emphasis on the conditions in the rural areas. The current limited series of reports emphasize the conditions in the major urban areas.
- There is a need to identify the type and availability of current dental service centers for individuals with disabilities. Such an effort to catalogue dental school and health department programs, as well as the number of private dental practitioners, would provide an essential basis for lobbying for improved educational programs and service arrangements.
- There is a need to enhance national organizations to stimulate an awareness of the varied needs of individuals with disabilities. Such organizations would serve as an advocate to raise standards, to support demonstration programs and lobby to increase the commitment to have children with disabilities (where possible) placed in the regular school system, to increase employment opportunities and to foster acceptance in the general community.

Only then can one anticipate the establishment of real programs in schools to prepare dental students to care for individuals with disabilities. Such an effort cannot be relegated to small groups of trained specialists. The reality is that such an effort can be successful only with specially trained specialists (e.g. pediatric dentists) and the participation of the broad range general practitioners who have been prepared to provide these needed services.^{32,33}

CONCLUSIONS

All data show that discrimination exists with children and adults with a range of disabilities. Mexican Federal and State legislations should work to reverse this trend by:

- Revising the legal framework.
- Modifying social and educational system with special emphasis for the needs of underprivileged people.
- Diminishing discrimination in the work setting.
- Creating conscious and positive attitudes in the Mexican population and family.
- Adding to all dental schools curricula the treatment of children and adults with disabilities.
- Opening more facilities to treat individuals with a range of disabilities.
- Instituting oral health prevention programs and increasing significantly dental facilities for the treatment of children and adults with disabilities.

REFERENCES

1. Chechemy W. Mexico and disabilities; Short stories. July 24, 2008. TakingitGlobal.org. Available from: <http://www.tigweb.org/express/panorama/article.html?ContentID=21207&print=true> Accessed June 30, 2009.
2. Mariana EN, Guadalupe D. Mental disability and discriminatory practices: effects of social representations of the Mexican population. *Int J Soc Psychiat*, 55(3): 238–46, 2009.
3. Instituto Nacional de Estadística Geografía e Informática. INEGI .http://www.censo2010.mx/doc/cpv10p_pres.pdf. Accessed December 20, 2010
4. Pan American Organization. Health in the Americas, 2007 edition. Washington, DC: Pan American Organization, 2007.
5. Dudzik P, Elwan A, Metts R. Disability, policies, statistics, and strategies in Latin American and the Caribbean: a review. Washington: Inter-American Development Bank: 2000. Available from: <http://www.iadb.org/sds/doc/Rev2bEditedDisability-PolicyDudzikElwanMetts.pdf> Accessed September 11, 2009.
6. Consejo nacional de discapacidad, Available from http://www.conadis.salud.gob.mx/descargas/pdf/atn_intgrl_salud_pcd.pd. Accessed November 2, 2010.f
7. World Health Organization. Mexico - Health in the Americas 2007 - Volume II Available from: <http://www.paho.org/hia/archivosvol2/paisesing/Mexico%20English.pdf> Accessed September 11, 2009.
8. Instituto Nacional de Estadística geografía e informática INEGI, 2004, Las personas con discapacidad en México: una visión censal, basado en el XII censo general de población y vivienda 2000. www.inegi.gob.mx.
9. Antúnez Farrugia MA, Balcázar de la Cruz A. Diagnóstico Sobre Discapacidad en México. Available from <http://scm.oas.org/pdfs/2007/DIL00140s.pdf>. Accessed November 11, 2010.
10. Secretaria de desarrollo social, 2005. Primera Encuesta Nacional sobre Discriminacion en Mexico. Available from www.catedradh.unesco.unam.mx/SeminarioCETis/.../Doc.../5.../10.pdf. Accessed November 12, 2010.
11. Hernández Licona, G, Disability and The Labor Market: Data Gaps and Needs in Latin America and the Caribbean. Banco Internacional de I. Desarrollo, BID. Available from www.canafro.iglooprojects.org/download/library/indigenoug/pubwp619pd?data... accessed, January 6, 2011.
12. Conapra, reporte mundial en seguridad vial, es hora de acción OMS.
13. WHO supported road safety activities in Mexico. Available from: http://www.who.int/violence_injury_prevention/road_traffic/country-work/mex/en/index.html Accessed September 14, 2009.
14. Pan American Health Organization. Human Rights and Health: persons with mental disabilities. Available from: http://74.125.47.132/search?q=cache:SP2VuXGJOLcJ:new.paho.org/hq/index.php%3Foption%3Dcom_docman%26task%3Ddoc_download%26gid%3D674%26Itemid+PAHO+Human+Right+and+Health:+persons+with+mental+disabilities&cd=1&hl=en&ct=clnk&gl=us Accessed September 14, 2009.
15. Policies towards person with disabilities: disability and poverty reduction. Available from: http://www.iadb.org/int/jpn/seminars/disa/es_ES/additional/lac.htm Accessed September 14, 2009.
16. World Bank. Disabilities in Latin America and the Caribbean. Available from: <http://74.125.47.132/search?q=cache:7MOKm8jebCOJ:sitere-sources.worldbank.org> Accessed September 11, 2009.
17. Nigenda G, Lopez-Ortega M, Matarazzo C, Juarez-Ramirez C. Household care for ill and disabled persons: challenges for the Mexican health care system. *Salud Publica Mex*; 49(4): 286–94, 2007.
18. Directorio Nacional de Asociaciones de y para Personas con Discapacidad. INEGI. (2002). México, Aguascalientes.
19. Uskun E, Gundogar D. The levels of stress, depression and anxiety of parents of disabled children in Turkey. *Disability and Rehabilitation*. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/20370488> Accessed July 15, 2010.

20. Nation Master.com. Population below poverty line (most recent) by country Available from: http://www.nationmaster.com/graph/eco_pop_bel_pov_lin-economy-population-below-poverty-line Accessed August 10, 2010.
21. UNICEF Preventing child poverty in Turkey. Available from: <http://www.unicef.org/turkey/sy19/cp/39.html> Accessed July 19, 2010.
22. Perez-Nuñez R, Vargas-Palacios A, Ochoa-Moreno I, Medina-Solis CE. Household expenditures in dental health care: national estimates in Mexico in 2000, 2002, 2004. *J Pub Health Dent*; 67(4): 234–42, 2007.
23. Kozol J. *Savage inequities: children in America's school*. New York: Harper Perennials, 20–1, 1999.
24. Encuesta Nacional de Caries Dental 2001. <http://www.cenave.gob.mx/saludbucal/encd2001.pdf> accessed June 18, 2010.
25. Ortega-Maldonado M, Mota-Sanhua V, López-Vivanco JC, Estado de Salud Bucal en Adolescentes de la Ciudad de México. *Rev Salud Pública*, 9(3): 380–87, 2007.
26. de la Fuente-Hernández J, González de Cossío M, Ortega-Maldonado M, Sifuentes-Valenzuela MC, Dental decay and tooth loss at the high school level in Mexican students; *Salud pública (Mex)*50 no.3 May/June 2008. Available from http://www.scielosp.org/scielo.php?script=sci_arttext&pid=S0036-36342008000300007, accessed January 6, 2011.
27. Bagramian RA. The global increase in dental caries. A pending public health crisis. Available from: <http://www.amjdent.com/Archive/2009/Bagramian%20-%20February%202009.pdf> Accessed August 10, 2010.
28. Sahin H, Akyol AD. Evolution of nursing and medical students' attitudes towards people with disabilities. *Journal of Clinical Nursing*, 2010. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/20522157> Accessed July 15, 2010.
29. Alaçam A, Yildirim S, Cinar C, Bal C, Gurbuz F. The evaluation of the approach of Turkish dentists to oral health of disabled patients: a pilot study. *Brit J Develop Disab*, 50(1): 47–57, 2004.
30. Commission on Dental Accreditation of Canada. Accreditation Requirements for Doctor of Dental Surgery (DDS) or Doctor of Dental Medicine (DMD) Programs. Updated November 30, 2006. Available from: <http://www.cda-adc.ca/cdacweb/en/> Accessed June 25, 2010.
31. Commission on Dental Accreditation. Accreditation Standards for Dental Education Program; Modified February 1, 2008. Standard 2-26. Available from: <http://www.ada.org/prof/ed/accred/standards/predoc.pdf> Accessed June 24, 2010.
32. Waldman HB, Perlman SP. A special care dentistry specialty: sounds good, but... *J Dent Edu*, 70(10): 1099–1102, 2006.
33. Chaudhari L, 2006, *Disability, Health and Human Rights*, Centre for Enquiry into Health and Allied Themes (CEHAT).

