# Review

# Utilization of dental health services by adult immigrants: A narrative review

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Poverty, wars, complex disasters and globalization have, for long time, been associated with significant migrations from areas "unsecure" to those assumed to be more secure. Migrants usually bring in host countries their specific problems including health-related. Underutilization of dental health services (DHS) is an example among many others. Most immigrants seek curative than preventive care services. Barriers to dental services utilization, as reported by most immigrants, include low income, lack of dental insurance, older age, male sex and acculturation. Healthcare policymakers of host countries have to urgently and appropriately tackle this unfavourable disparity in healthcare which has a non-negligible burden.

**Key words:** Dental health services; utilization; migrants.

## INTRODUCTION

Healthcare services are undoubtedly an important determinant of health however not the most influential. Optimal utilization of available healthcare services is an important means to improve one's health status.

Evidence from literature has showed that preventive care is surely the best strategy to efficiently attain the goal of a better health (Merson 2000, Pencheon 2004, WHO 2008, McMichael 2000, Lalonde 1974, Liedekerken 1990).

Consistent evidence has showed that preventive care is mainly used by individuals from affluent socioeconomic classes in spite of being at lower risk of health problems. Conversely subjects from less advantaged socioeconomic classes more frequently use curative healthcare services, emergency departments often being the first line contact (Uiters 2006, Norredam 2004, Leduc 2004, Gwatkin 1998). Economic deprivation is surely a relevant determinant in countries where the private healthcare is predominant; however it cannot fully explain the problem (Muennig 2002, Perez 2002). In fact even in affluent countries with a welfare state committed to universal coverage, underutilization of healthcare services by this population subgroup is practically the rule. Sociocultural factors and lack of an appropriate information probably have an important role (Uiters 2006, Leduc 2004, Laroche 2001, Wang 2007, Blanchard 2006).

In developing countries, preventive care for the poor is likely to be scarce or no existent, especially in rural

areas. Poverty, lack of access to health centres, clinics and pharmacies and lack of awareness and knowledge about how to use drugs are common in these areas

(Merson 2000). Several studies have measured migrants' access to healthcare with non-conclusive results. Although the majority of adults had received care from a physician within the study period, many did not. Those analyses that examined dental care found a similar trend. Some of these studies showed higher likelihood of preventive service utilization among immigrants and others higher among non-immigrants. In selected ones, associations were not significant once multivariate analyses were performed (Uiters 2006, Muennig 2002, Perez 2002, Newbold 2006, Marino 2001, Green 2005).

Analyses from above studies have also showed mixed results in factors affecting utilization. Some of them emphasized the role of enabling variables such as insurance status and having an usual source of care in promoting access to healthcare while others found that predisposing factors such as race/ethnicity and sex were significantly associated with utilization of healthcare (Norredam 2004, Leduc 2004, Wang 2007, Carrasquillo 2004, Wolinsky 1978). The oral cavity is an essential part of the body and contributes to total health and well-being. Recent research indicates that a poor oral health affects the general health and that some systemic diseases can affect oral health (Joshipura 2000). A variety of diseases involve the oral cavity, most are frequent and preventable

and others rare and life-threatening (Bratthall 2006, Barmes 2000). Regular dental check-ups are part of a broad range of interventions usually performed by dentists in order to protect and improve the oral health of individuals and populations (Bratthall 2006, Barmes 2000).

Encyclopaedia Britannica defines dentistry as "the profession concerned with the teeth and mouth"

(Encyclopaedia Britannica Concise 2006). A more detailed definition is given by the American Dental Association (ADA):

"Dentistry is the evaluation, diagnosis, prevention and/or treatment (non-surgical, surgical or related procedures) of diseases, disorders and/or conditions of the oral cavity, maxillofacial area and/or the adjacent and associated structures and their impact on the human body" ( <a href="www.ada.com">www.ada.com</a> accessed on date December 11, 2007).

Oral hygiene maintenance, as other aspects of general hygiene, is a health behaviour not yet widely diffused in populations of developing countries. Dental care services are also scarce in these areas and people emigrating from these countries are generally expected to be at higher risk of oral and dental diseases thereby the great usefulness, in host countries, of health institutions such as dental homes (Graham 2005). The practice of dentistry goes up to remote ages in different civilisations from Egypt, Orient, Europe and America (Wilmerding 2007, www.bda.co.uk accessed on date December 11, 2007).

This paper aims at synthesing available published literature about DHS utilization patterns in adult immigrants living in affluent countries.

# "MODERN" IMMIGRATION

Peoples have always moved within regions or from one region to another in order to improve their standard of living, to give to their children better opportunities to get ahead, or to escape from poverty, war and famine. This is the iron rule of migration that has governed since the beginning of time (OECD 2009, <a href="www.iom.int">www.iom.int</a> accessed on date June 9, 2014).

Today, with modern transportation and telecommunications, more people are motivated and able to move. The poor and disadvantaged can now see with their own eyes the wide disparity between their standard of living and that of the richer and more advantaged people in the world. They want to share in the wealth, and by the means of modern transportation, they are able to get to richer lands in a matter of hours. With economic globalisation and the proliferation of international business, there is also increasing demand for mobility of professionals (OECD 2009, EU Migration Network Report 2006, Lluul 2008, www.iom.int accessed on date June. 09, 2014).

The post-World War II period is sometimes designated by popular media as the "age of migration". According to scholars Bonifazi and Lucassen, there had been even more important migration flux in some remote historic th periods: migration flux that occurred from the midst 19

century to the two first decades of 20 century which populated "new" continents and those which happened from the end of World War II to the beginning of the 1970 (OECD 2009, Bonifazi 2001, Bonifazi 1999, Lucassen 2005, www.iom.int accessed on date June 09, 2014). The specific characteristic of this recent migration flux is perhaps its impact and visibility on host societies. It is also interesting to point out that the period 1975-1985 was characterised by a notable stasis (Bonifazi 2001, Lucassen 2005). Recent data showed a sustained increase in immigrants' entry and settlements mainly in USA, Canada and Germany and at less intensity in other developed countries. Sensibility to this migratory phenomenon is equally distributed and perceived in host countries (OECD 2009, Bonifazi 2001, Lucassen 2005). Immigrants bring with them a lot of problems, real or perceived. These include health and healthcare-related behaviours.

## **Dental Health Services Utilization**

A low utilization rate of dental health services (DHS) by immigrants in comparison to "indigenous" is practically the rule, at least according to available published literature. The rate is variable and can range from lower levels such as twenty percent as is reported in one study conducted in the USA to higher ones up to sixty-nine percent as has been recorded among long-term immigrants in Canada (Quandt 2007, Bedos 2004, Fuentes-Afflick 2009). However Anderson and al., in a study conducted at New York City, found that older immigrants were more likely to use dental services than older natives (odds ratio=1.30) despite numerous barriers (Anderson 2010).

This variability was function of factors such as geographic location, immigrant group, age, sex, education attainment, finances, availability of dental services etc.

Regarding geographic location, the highest (sixty-nine percent!) and lowest (twenty percent!) rates of utilization have been, to our best knowledge, reported in Canada and in the USA respectively (Newbold 2006, Quandt 2007, Bedos 2004).

A differential pattern in DHS utilization has also been reported among immigrant groups. In a study conducted in the USA, Russian and Chinese immigrants recorded respectively sixty percent and forty-seven percent rates of utilization; significant differentials have also been reported among other US immigrant groups (Wu 2005, Watson 1995, Stewart 2002, Shelley 2011, Cruz 2010). In Europe, scholars Hjern (Sweden) and Selikowitz

(Norway) found comparable differentials between Polish and Chilean immigrants and between urban and rural Pakistani respectively (Hjern 2000, Selikowitz 1986). This trend is consistent with the fact that different countries of the world usually have different heath systems organizations and interested populations different health status or healthcare behaviours (Merson 2000, Perez 2002, Laroche 2001, Wang 2007).

Age and sex are other important determinants of DHS utilization. Young people and male subjects frequently record lower rates while females seem to have better dental health behaviours (Quandt 2007, Lukes 2002).

Education attainment, finances, social support, length of stay in host countries and acculturation have also been showed to have an important influence on DHS utilization. High educated and wealthy groups of immigrants are most likely to have better dental health and healthcare behaviours than lower educated and poorer counterparts. In the USA, where care funding (including dental care!) is mainly based on private insurance, subjects not covered are more likely to underuse DHS contrary to those covered. It also is the case for high educated and skilled subjects (they are more likely to have better jobs and so financial resources availability and insurance coverage!), long-term and the so called "accultured" immigrants (Newbold 2006, Marino 2001, Bedos 2004, Wu 2005, Stewart 2002, Lai 2007, Bower 2007, Zhang 2008, Gao 2011).

Utilization of DHS by this population subgroup is mainly emergency oriented, curative than preventive (EU Migration Network Report 2006). This inappropriate use of health services probably has a negative impact on the dental health of interested subjects and a high burden on host countries' healthcare services.

Motivations behind the utilization of DHS, as reported by the interested subjects, included such reasons as "to check that everything is okay", "for good health" and braces" etc. (Newbold 2006, Bedos 2004, Lukes 2002).

Finally, obstacles to optimal utilization of the DHS were those negatively associated to predictors of utilization cited in above paragraphs (geographic location, age, sex, education attainment, etc.).

## CONCLUSION

Adult immigrants from developing countries seem to usually underuse DHS as is the case for many other preventive care services. Utilization is often for emergency problems (Green 2005, Hee-Soon 2004, Remennick 2003).

The above cited healthcare behaviour is worrying because of the high prevalence of oral and dental diseases among this population subgroup. As "oral health is a mirror for general health and well-being" and is also strongly associated to psychological distress, underutilization of preventive dental services by this

population subgroup should be considered as an important public health issue (Vered 2009, Milgrom 2004). Healthcare policymakers of host countries should better tackle this unfavourable disparity in healthcare utilization.

# **CONFLICT OF INTEREST STATEMENT**

We declare absence of conflicting interest.

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# REFERENCE

Anderson CN, Kim H (2010). An examination of older immigrants' use of dental services in the United States. J. Aging Soc. Policy. 22(1): 18-32.

Barmes DE (2000). "Public policy on oral health and old Age: A global view. Journal of Public Health Dentistry. 60: 335–37.

Bedos C, Brodeur JM, Benigeri M (2004). Utilization of preventive dental services by recent immigrants in Canada. Can. J. Public Health. 95(3): 219-23.

Blanchard CJ (2006). Discrimination and healthcare utilization. PhD dissertation. Santa Monica CA. Pardee Rand Graduate School.

Bonifazi C (1999). Le migrazioni nel mondo. Demotrends. (3).

Bonifazi C (2001). Context and perspectives of Italian migration flows. Demotrends (2).

Bower E, Newton JT (2007). Oral health acculturation in Albanian-speakers in south London. Community Dent Health. 24(3):149-55.

Bratthall D, Petersen PE, Stjernswärd JR (2006). Oral and craniofacial diseases and disorders. In: Disease Control Priorities in Developing Countries pp. 723-736. Washington DC. The World Bank Group.

Carrasquillo O, Susmita P (2004). The role of health insurance on Pap smear and mammography utilization by immigrants living in the United States. Preventive Medicine. 39: 943–950.

Cruz GD1, Chen Y, Salazar CR, Karloopia R, LeGeros RZ (2010). Determinants of oral health care utilization among diverse groups of immigrants in New York City. J. Am. Dent. Assoc., 141(7): 871-8.

Definitions hosted on the American Dental Association website <a href="www.ada.com">www.ada.com</a> (accessed on date December 11, 2007).

Encyclopaedia Britannica Concise (2006). EU Migration Network Report (2006). Bruxelles. EU.

- Fuentes-Afflick E1, Hessol NA (2009). Immigration status and use of health services among Latina women in the San Francisco Bay Area. J Womens Health (Larchmt). 18(8): 1275-80.
- Gao X, McGrath C (2011). A Review on the oral health impacts of acculturation. J. Immigrant Minority Health. 13:202–213.
- Graham MA. Perceived social status, language and identified dental home among Hispanics in Florida. JADA, Vol. 136 www.ada.org/goto/jada (accessed on November 30, 2005).
- Green EH (2005). Pap smear rates among Haitian immigrant women in Eastern Massachusetts. Public Health Reports. p. 120.
- Gwatkin DR (1998). The current state of knowledge about how well government health services reach the poor: implications for sector-wide approaches. Washington DC. The World Bank.
- Hee-Soon J (2004). Predictors of adherence to screening mammography among Korean American women. Preventive Medicine. 39: 474–481.
- Hjern A, Grindefjord M (2000). Dental health and access to dental care for ethnic minorities in Sweden. Ethn Health. 5(1): 23-32.
- International Organization of Migration OIM website <a href="https://www.iom.int">www.iom.int</a> (accessed on date May 5, 2008).
- Joshipura KJ, Ritchie C, Douglass D (2000). Strength of evidence linking oral conditions and systemic disease. Compend Contin Educ. Dent. Suppl., 2000; 30: 12–23.
- Lai DW, Hui NT (2007). Use of dental care by elderly Chinese immigrants in Canada. J. Public Health Dent., 67(1): 55-9.
- Lalonde M (1974). A new perspective on the health of Canadians. Ottawa. Government of Canada.
- Laroche M (2001). Health status and health services utilization of Canada's immigrant and non- immigrant populations. Can. Public Policy. 26(1): 51–73.
- Leduc N, Proux M (2004). Patterns of health services utilization by recent immigrants. Journal of Immigrant Health. 6(1).
- Liedekerken P, Jonkers R, Haes W (1990). Effectiveness of health education. Review and analysis. Van Gorcum/ Uitgeverij voor Gezondheidsbevordering by Assen, The Netherlands. Dutch Health Education Centre.
- Lluul J (2008). The impact of immigration. CEMFI Working Paper N.0802. Madrid. CEMFI.
- Lucassen L (2005). The immigrant threat: The integration of old and new migrants in Western Europe since 1850. Chicago: University of Illinois Press.
- Lukes SM, Miller FY (2002). Oral issues among migrants farm workers. J. Dent. Hyg. 76(2): 134-40.
- Marino R, Stuart GW, Wright FA (2001). Acculturation and dental health among Vietnamese living in Melbourne, Australia. Community Dent Oral Epidemiol. 29:107–19.
- McMichael AJ, Kjellstrom T, Smith KR (2000). Environment and health. In: Merson M, Black R, and

- Mills A, editors. International Public Health. Gaithersburg MD. Aspen Press.
- Merson MH, Black RE, Mills AJ (2000). International Public Health. Gaithersburg MD. Aspen Press.
- Milgrom P, Garcia RI, Ismail A, Katz RV, Weintraub JA (2004). Improving America's access to care: the national institute of dental and craniofacial research addresses oral health disparities. J. Am. Dent. Assoc., 135(10): 1389–1396.
- Muennig P, Fahs MC (2002). Health status and hospital utilization of recent immigrants to New-York city. Preventive Medicine. 35: 225-231.
- Newbold KB, Patel A (2006). Use of dental services by immigrant Canadians. J. Can. Dent. Assoc., 72(3): 143.
- Norredam M, Krasnik A, Moller Sorensen T (2004). Emergency room utilization in Copenhagen: a comparison of immigrant groups and Danish-born residents. Scand J. Public Health. 32(1): 53-9.
- Organization for Economic Co-operation and Development OECD (2009). Insights International Migration. Paris. OECD.
- Pencheon D, Guest C, Melzer D, Muir Gray JA (2004.). Oxford Handbook of Public Health Practice. Oxford. Oxford University Press.
- Perez CE (2002). Health status and health behaviours among immigrants. Supplement to health reports. Ottawa. Statistics Canada.
- Quandt SA, Clark HM, Rao P (2007). Oral health of children and adults in Latino migrant and seasonal farm worker families. J. Immigr Minor Health. 9(3): 229-35.
- Remennick L (2003). I have no time for potential troubles": Russian immigrant women and breast cancer screening in Israel. J. Immigrant Health. 5(4).
- Selikowitz HS, Holst D (1986). Dental health behaviour in a migrant perspective: use of dental services of Pakistani immigrants in Norway. Community Dent. Oral Epidemiol. 14(6): 297-301.
- Shelley D, Russell S, Parikh NS, Fahs M (2011). Ethnic disparities in self-reported oral health status and access to care among older adults in NYC. Journal of Urban Health: Bulletin of the New York Academy of Medicine. Vol. 88, No. 4.
- Stewart DC, Ortega AN, Dausey D, Rosenheck R (2002). Oral health and use of dental services among Hispanics. J Public Health Dent. 62(1): 84-91.
- The story of dentistry: Dental History Timeline, hosted on the British Dental Association Website www.bda.co.uk (accessed on December 11, 2007).
- Uiters E, Walter LJ, Deville M, Foets M (2006). Use of healthcare services by ethnic minorities in the Netherlands: do patterns differ? European Journal of Public Health. 16(4): 388-393.
- Vered Y, Zini A, Sgan-Cohen HD (2009). Psychological distress and self-perception of oral health status among an immigrant population from Ethiopia. Ethn Health. 14(6): 643-52.
- Wang L (2007). Immigration, ethnicity and accessibility to

- culturally diverse family physicians. Health & Place. 3: 656–671.
- Watson MR, Brown LJ (1995). The oral health of US Hispanics: Evaluating their needs and their use of dental services. J. Am. Dent. Assoc., 126: 789-795.
- WHO Commission on the Social Determinants of Health (2008). Closing the gap in a generation. Geneva. WHO Geneva.
- Wilmerding T (2007). History of Dentistry, hosted on the Creighton University School of Dentistry website, page 4 (accessed on December 15, 2007).
- Wolinsky FD (1978). Assessing the effects of predisposing, enabling and illness-morbidity characteristics on health services utilization. J. Health Soc. Behav., 19: 384-96.
- Wu B, Tran TV, Khatutsky G (2005). Comparison of utilization of dental care services among Chinese- and Russian-speaking immigrant elders. J. Public Health Dent., 65(2): 97-103.
- Zhang W (2008). Oral health services needs and barriers for Chinese migrants in the Wellington area. N Z Dent J. 104(3): 78-83.