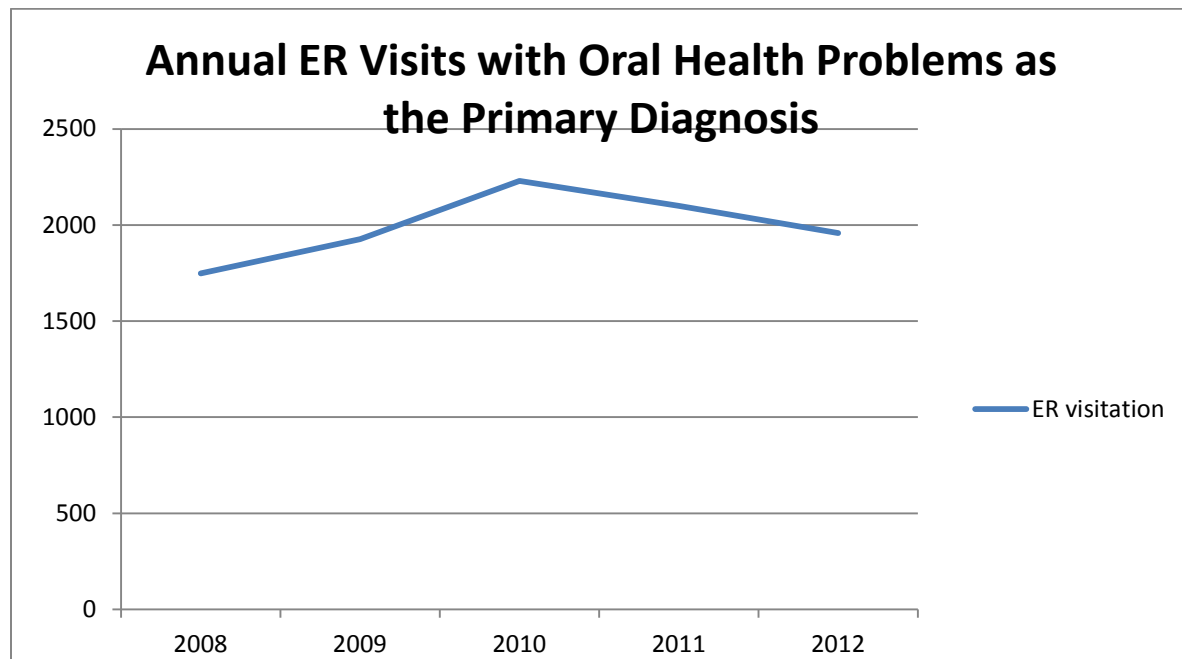


## Emergency Room Visitation and Expense Reduction Due to a Community Based Oral Health Program

Written by Dick Wittberg, PhD, former Executive Director, Mid-Ohio Valley Health Department, 2013

Hospital Emergency Rooms (ER) are a common place for patients with dental pain to seek treatment. It has been estimated that visits to ERs for preventable dental conditions increased 16% nationwide between 2006 and 2009 (or about 5% per year)<sup>i</sup>. The percentage of these ER visits made by Medicaid patients, and thus paid for by tax dollars, has been reported in States to vary between one-third and one-half<sup>ii</sup>. Most hospitals are only able to treat pain and infection,<sup>iii</sup> and thus these patients tend to have a high rate of readmission. One study has concluded that 80% of low-income patients presenting to ERs with oral health pain needed subsequent care from a dentist.<sup>iv</sup> A Minnesota study found that 20% of ER visits for oral health complaints were made by patients who had previously sought ER care for the same complaint.<sup>v</sup> ER and hospital treatment is expensive and incomplete: it does not solve underlying problems and does not provide restorative work or extractions.<sup>vi</sup> ER physicians merely address pain and infection by providing pain medication and antibiotics.<sup>vii</sup>

In view of these challenges, the Mid-Ohio Valley Health Department (MOVHD) in collaboration with the local dental community developed the Smiles for Life program. MOVHD acts as the gate-keeper. Low income clients (below 250% of Federal Poverty Level) make an appointment with MOVHD. At MOVHD, Public Health Practice Dental Hygienists are used as case managers. At the appointment, clients are evaluated, given a full mouth x-ray, and placed with a participating dentist. The dentist in effect volunteers his or her time, but the office receives a \$40 per client visit to assist with costs for staff and overhead. MOVHD controls the flow of clients to the dentists, assuring that no dentist gets more than they are willing to give. MOVHD also assures that clients keep appointments. Currently the no-show rate is only about 3%, which is substantially better than the typical no-show rate for all participating dentists. The program, including stipends, costs MOVHD approximately \$170,000 per year to run.



The data on the chart demonstrates the impact on hospital Emergency Room visitation of a community dental program for low-income clients. Hospital visits in the Parkersburg, WV area went up 27.5% between 2008 and 2010 for oral health complaints. The Smiles for Life program started seeing clients in September of 2011, and the drop in ER visitation from 2010 and 2012 was 13.8%. At the same time, the cost per visit dropped from an average of \$131.50 prior to the start of the program to \$112.91 after, likely due to referrals to a program that provided clients better, more appropriate care than the hospital ER (MOVHD is only two blocks from the hospital).

Nationwide, ER visitation for oral health complaints is going up at a rate of about 5% per year, lower than the rapid increase seen in this area of WV (approximately 13% per year). Using a 5% increase per year, visitation to the ER would have been expected to be 2457 in 2012. Likewise, health care costs are rising at a double digit rate. Using a 10% increase per year, the cost per visit could be expected to be \$158.60. Thus, in the absence of this program, hospital ER costs for oral health complaints could have been expected to be approximately \$390,000 instead of the \$221,071 reported, a savings of about \$170,000. The program costs as much to run (\$170,000) as it saves in the Emergency Room, but the problem is not fixed in the ER. The hospital can only give pain meds, which have a street value and contribute to addiction, and antibiotics. There is a high rate of readmission for oral health complaints. The MOVHD program fixes the problem.

The savings of this program presented here are based strictly on hospital ER costs. It ignores quality of life issues, costs to businesses for absenteeism, economic costs to individuals (getting a job with poor oral health is very difficult), and readmission issues for hospitals.

Questions about the program can be directed to Dr. Richard Wittberg Drema Mace or Mary Beth Shea at (304) 485-7374.

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<sup>i</sup> Agency for Healthcare Research and Quality (AHRQ). Healthcare Cost and Utilization Project (HCUP) – The Nationwide Emergency Department Sample for the years 2009 and 2006. AHRQ, Rockville, MD. <http://hcupnet.ahrq.gov/>.

<sup>ii</sup> The PEW Center on the States. A Costly Dental Destination – Hospital Care Means States Pay Dearly. [www.pewcenteronthestates.org/dental](http://www.pewcenteronthestates.org/dental), February, 2012.

<sup>iii</sup> C. Lewis, H. Lynch, and B. Johnston. Dental Complaints in Emergency Departments: A National Perspective. *Annals of Emergency Medicine*. 2003; 42:93-99.

<sup>iv</sup> L. Cohen, A. Bonito, D. Akin, R. Manski, M. Macek, R. Edwards, and L. Cornelius. Toothache Pain: A Comparison of Visits to Physicians, Emergency Departments and Dentists. *Journal of American Dental Association*. 2008; 71:1205-1216.

<sup>v</sup> The PEW Center on the States. A Costly Dental Destination – Hospital Care Means States Pay Dearly. [www.pewcenteronthestates.org/dental](http://www.pewcenteronthestates.org/dental), February, 2012.

<sup>vi</sup> Davis E.E. PhD, Deinard A.S. MD, MPH, Maïga E.W.H MS. Doctor, my tooth hurts: the costs of incomplete dental care in the emergency room. Article first published online: 10 MAR 2010, *Journal of Public Health Dentistry*.

<sup>vii</sup> Davis E.E. PhD, Deinard A.S. MD, MPH, Maïga E.W.H MS. Doctor, my tooth hurts: the costs of incomplete dental care in the emergency room. Article first published online: 10 MAR 2010, *Journal of Public Health Dentistry*.