ORAL HEALTH IN KENTUCKY

Oral health does not just mean the condition of the teeth. The word "oral" refers to the mouth, which includes your teeth, gums, jawbone, and supporting tissues. Good oral health care can prevent a number of diseases in the mouth and is a key to your overall health [1]. Maintaining proper oral health care and hygiene can help prevent most of these diseases.

Size of the Problem:

a) Nearly 8% of the adult population in Kentucky is edentulous due to tooth decay or gum disease[2].
b) The age-adjusted rate for oral and pharyngeal cancers is 17.5 in Kentucky versus 15.5 nationwide [3].
c) 55.8% of the mothers reported that they did not visit the dentist/dental clinic during their most recent pregnancy [4].
d) 9.1 percent of mothers reported that they needed dental care during their pregnancy but did not get it [4].
e) HIV/AIDS prevalence in Kentucky is increasing, thereby increasing need for better oral health care facilities for the treatment of the fungal, viral or bacterial infections.
f) About 23% of the high school children and 25% of the middle school children in Kentucky responded that they did not brush their teeth on all seven days of the past week [5].
g) 85% of the high school and 75% of the middle school children in Kentucky reported that they did not floss on all seven days in the past week [5].
h) Close to 30% high school and 36% middle school children have not visited the dentist in the past 12 months [5].
i) According to the Kentucky KIDS SMILE program, there are about 4500 three year old children who have experienced toothache.
j) From the 2001 oral health survey results [6],
    i. 56.1% had past history of dental caries.
    ii. 28.5% needed early dental care (within weeks).
    iii. 3.9 % were in need of urgent dental care (within 24 hours).
    iv. 28.7 % had untreated decayed tooth.

Seriousness/Impact:

Clinical impact – Oral health can affect the health of your body in many different ways. Good oral hygiene is the key to good oral health, and can be basically be achieved by the routine control of dental plaque [7]. Cavities and gum disease can be painful and lead to serious infections, such as respiratory diseases. Untreated cavities or periodontal conditions eventually may lead to loss of tooth/teeth. Loss of teeth affects speech, ability to chew food properly which will then lead to poor nutrition and poor overall health [8]. Poor oral health during pregnancy may lead to preterm and low birth weight babies. It may also cause other complications such as pre-eclampsia, gestational diabetes and fetal loss [9]. Studies have shown that increased dental caries in the infant may be caused by high levels of carcinogenic bacteria in mothers during pregnancy [9]. The prevalence of early childhood caries (ECC) has also increased over the years

(1987 – 2001). If left untreated, early childhood caries can lead to loss of teeth and may also cause pain and distress to the child [6]. Poor oral health may affect a child's self esteem and prevent children from expressing positive emotions, which can then have an impact on their social interactions. Children with poor oral health and chronic dental pain have their learning and school performance adversely affected. Poor oral health also can cause inadequate development such an impaired general health status (height, weight) in children with no other medical problems.

Economic Impact – Emergency room visits have been increasing for adults seeking relief from dental pain. Treatments offered at the ER for preventable dental issues result in higher state expenditure that can be avoided by proper and timely oral health treatment [10]. Mothers with poor oral health have a risk of delivering preterm / low birth weight babies. There is a long term economic impact on the medical care of these babies. Compared to term infants, hospital inpatient service costs are shown to be significantly higher for preterm infants [11]. Also, pain related to the cavities and gum diseases decreases the oral health related quality of life. This causes loss of work or school days and therefore reduces productivity of an individual resulting in lost wages[12]. Pain from oral disease is a distraction for students and keeps their mind from focusing and learning.

Disparities – Socioeconomic factors play a crucial role in care-seeking behaviors. These obstacles are often a barrier to preventive and comprehensive oral health care. Children living in poor households are at a higher risk for dental caries [13].

Capacity/Resources:

- Statewide community water fluoridation program.
- Oral health education is provided to caregivers/parents about the importance of oral health.
- The Head start program: professional dental check-up and preventive dental care for low-income pre-school age children around all 120 counties.
- The sealant program for 2nd, 3rd and 6th grade children is carried out by 23 local health departments.
- Smoking Cessation programs promoting better health status also educates about oral cancers that are caused by tobacco products.
- Local Health department based Fluoride Varnish application program.

Interventions that Work:

Dental sealants have been shown to be effective in preventing caries [14]. Arizona, Illinois, New Mexico and Ohio state school based sealant programs have targeted and served over 35% of a distinct population of caries-risk children. The Ohio State School-Based dental sealant program is funded by the State health department, to target high-risk schools meaning those with large proportions of students from families with low-incomes. This program has shown substantial increase in sealant prevalence and reduced disparity in regular oral health care in schools reached by the program [15].

Recommendations:

- Expand current sealant programs and develop new sealant programs. Children enrolled in the sealant program should be followed to evaluate the effectiveness of the sealant. If a student should move from one-school/county to-another, there should be a permanent record for that student so he/she can be followed by the health department for the sealants received and further treatment referrals.
- Improve access to the dentist for the under-served population. Incentives should be given to dentists to work in the DHPSAs and also for those accepting Medicaid.
- Oral health education programs should be expanded to all health departments, schools and medical clinics for increased oral health care awareness among caregivers.
- Educate and encourage school children towards better nutrition and to decrease intake (and frequency of intake) of sugar and soda. Include oral health as a part of health education at schools.
- Reinforce dental providers to screen the populations that are high risk for oral-pharyngeal cancers during their dental visits.
- Partner with Tobacco Use Cessation programs to advocate for better oral health status.
- Provide oral health screening and simple educational preventive programs on oral self-care and disease prevention during pregnancy at the local health departments.

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