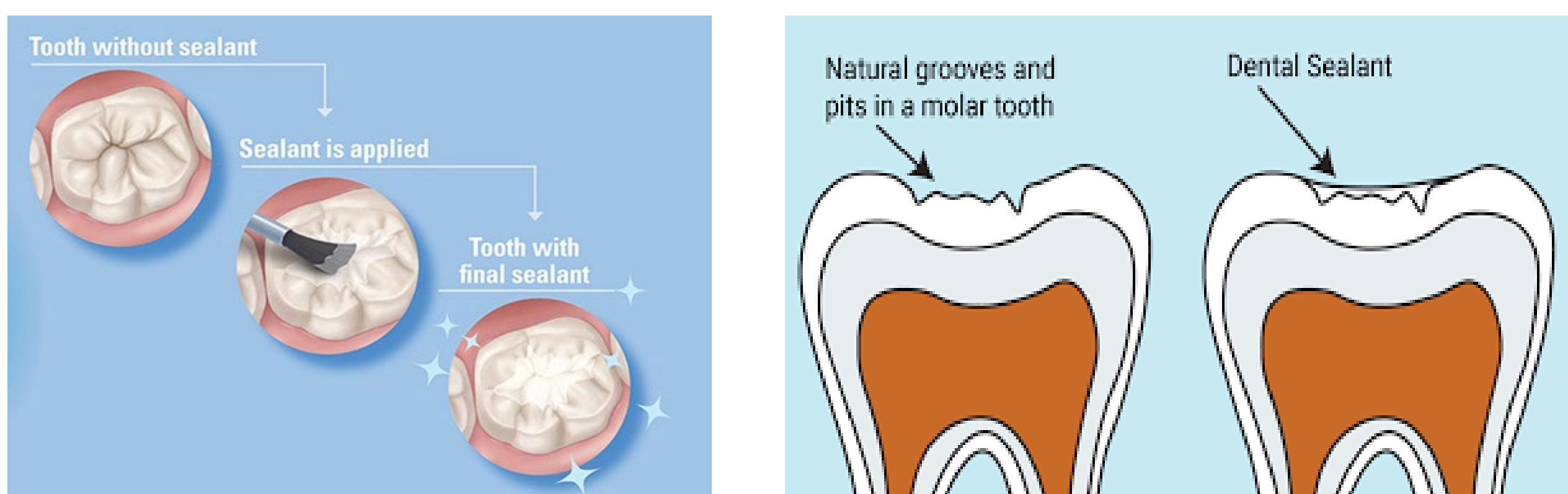


INTRODUCTION

- Dental caries is one of the most common chronic conditions among children and teens
- Left and untreated decay can cause pain and infection and problems in eating, speaking, and learning
- Sealants are an extremely effective yet underutilized shield that protects children's teeth from decay. Dental sealants applied in childhood can help prevent caries
- Dental sealants are thin coatings that when painted on the chewing surfaces of the posterior teeth which can prevent decay for many years



- Untreated caries can cause pain, infection, and problems eating, speaking, and learning. Dental sealants also have greater applications in children and young individuals with medical, intellectual, or physical disabilities
- Moreover, sealants can also be used for adults who have incipient carious lesions of pits and fissures
- Sealants can be applied by a dentist, dental hygienist, or other qualified dental professional, depending on state law and regulations. This can be done in dental offices or using portable dental equipment in community settings like a school.



METHODS & MATERIAL

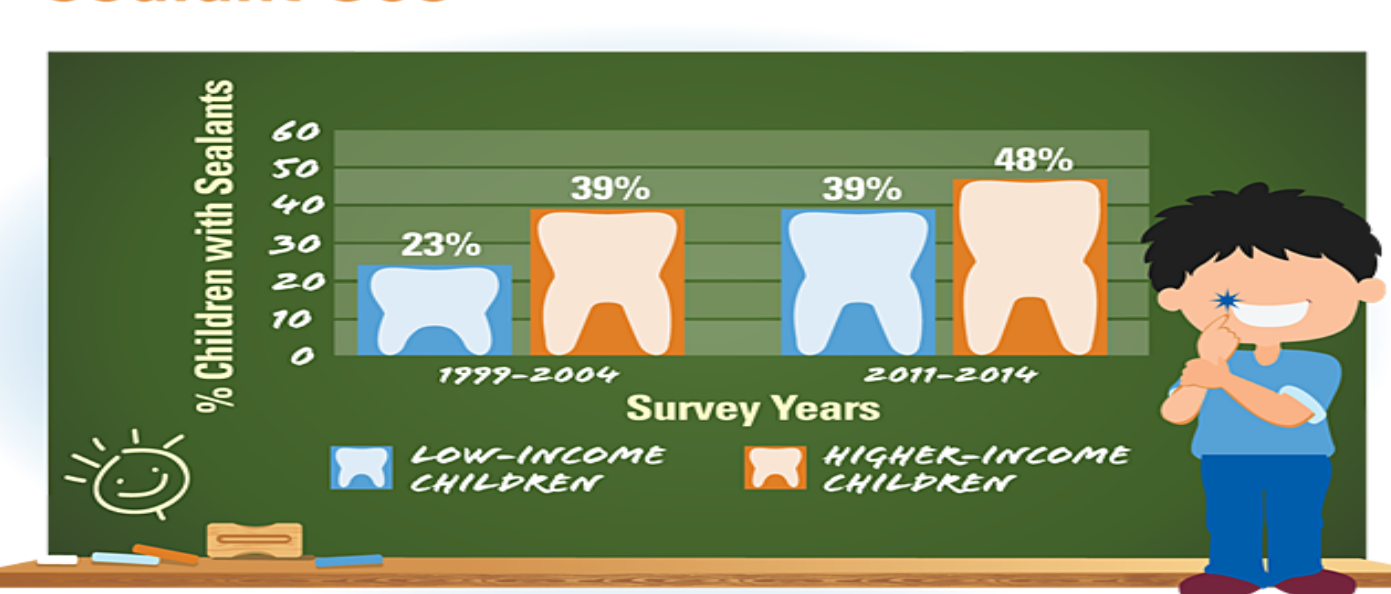
- A systemic review was carried out on dental sealants and its effects on dentistry via PubMed and Google scholar.
- Inclusion criteria includes articles with review of sealant and its effectiveness along with the cost-effectiveness

RESULTS

- Based on the evidence described in this literature reflects how dental sealants is effective in reducing incidence and prevalence of dental caries in posterior teeth of children
- School-age children (ages 6-11) without sealants have almost 3 times more 1st molar caries than those with sealants
- Although the overall number of children with sealants has increased over time, low-income children are 20% less likely to have them and 2 times more likely to have untreated cavities than higher-income children

Sealant Use

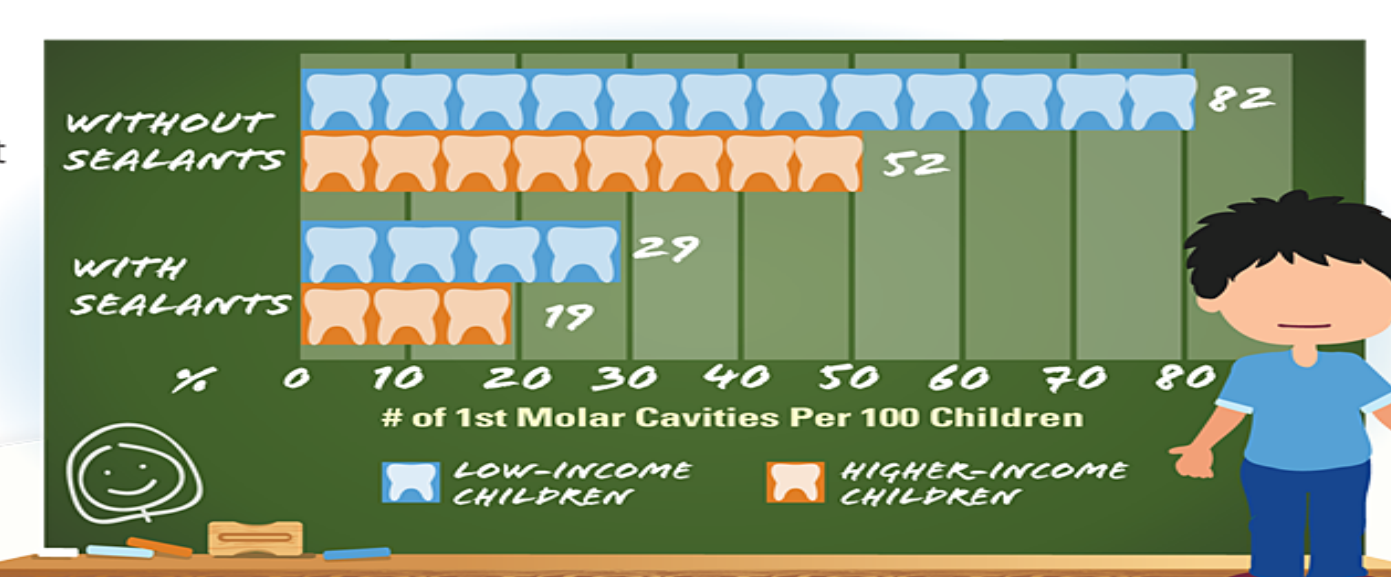
Disparities are decreasing over time
The number of low-income children with sealants increased by about 70% from 1999-2004 to 2011-2014, and the number of higher-income children with sealants increased by 23%. The increase in sealants among low-income children prevented almost 1 million cavities.*



SOURCE: NHANES, 1999-2004 and 2011-2014. *Journal of Public Health Dentistry, 2014: http://bit.ly/2cZXDYh

Cavities

Disparities still exist
Low-income children without sealants have about 60% more cavities in their 1st permanent molars than higher-income children.



SOURCE: NHANES, 1999-2004 and 2011-2014.

CONCLUSION

- Antibacterial and remineralizing restorative materials would be particularly desirable when taking into account the eventual goal of primary prevention of dental caries in children at high risk of caries.
- Sealants are put onto teeth to protect them and prevent tooth decay
- Sealants fill up the small grooves and pits on your teeth that are hard to clean, making a smooth, easy-to-clean surface
- Tooth brushing, limiting sugary foods and drinks plenty of tap water also helps to prevent tooth decay.
- Caries progression is prevented by sealants. Bacteria don't appear to be able to use their ability to cause cariogenesis when sealants are kept in place and access to fermentable substrates is blocked.

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