Sugar + Teeth = Cavities

• Just teeth or is there more?
History of Dental Caries in Alaska Native People

Archeological records show caries rate of ~1%

1928 – 1930’s

Improved air transportation and dietary changes

1984

1999

Studies show lowest caries rate in the world

Prevalence of dental caries in children 2x same aged U.S. children

Vast majority of children have dental caries
Etiology of Dental Caries

Bacteria + Sugar = Acid + Tooth = Caries
Demineralization/Remineralization Process

Ca = calcium
PO$_4$ = phosphate
F = fluoride
Cariogenicity of Foods

Effect of Carbohydrate Frequency on Plaque Acid Levels

*Demineralization begins when the acidity level of saliva reaches pH 5.5

Regular Meals (M)

- Periods of Demineralization
- Periods of Remineralization

Regular Meals (M) plus Sweet Snacks (S)

Intake of carbohydrates throughout the day (recorded in time)
Why SSB are bad for your teeth

Carbonic Acid
OUR VISION:
Alaska Native people are the healthiest people in the world.