

## Massachusetts & The National Institute of Dental and Craniofacial Research



FY20 Total Funding: **\$22,194,471** Number of Institutions Funded: Number of Grants Awarded: Number of Congressional Districts with NIDCR Grants:

## Improving Massachusetts's Oral Health through NIDCR Funding:

- Based at Boston University, the Northeast Center for Research to Evaluate & Eliminate Dental Disparities is funded by a seven-year grant from NIDCR. Its mission it to improve oral, dental and craniofacial health through research, research training and the dissemination of health information with a focus on the elimination of oral health disparities. Notably, its two major community-based projects include partnering with community health centers to reduce early childhood caries (tooth decay) and working with oral health advocates in public housing to evaluate the effectiveness of a multimodal, community-based approach to prevent early childhood caries.
- A full understanding of human oral health and disease requires a comprehensive analysis of the human oral microbiome. About 35 percent of bacteria in the mouth are currently uncultivable. Researchers at the Forsyth Institute will grow a significant proportion of these presently uncultivable bacteria by exploiting their interactions with cultivatable bacteria within a large consortium. These data will elucidate why some bacteria are uncultivable, show how they interact with other bacteria, and determine their roles oral health and disease.
- Broken facial bones resulting from birth defects or trauma are difficult to treat and often suffer from complicating bacterial infections. Antibiotics and pro-healing drugs can help repair these facial bone injuries, but oftentimes the healing benefits from using these treatments are short-lived. To better treat these facial bone injuries, investigators at Massachusetts Institute of Technology are developing an implantable material that selectively releases antibiotics when bacteria are present and pro-healing drugs when bone regrowth begins to occur.

