

## Introduction

**Approximately 43,250 new cases of oral and pharyngeal cancer were diagnosed in the United States during 2014 which in turn lead to 8,000 deaths** (2015; Brilliant, Cameron, Doucette, Haslam, Tax, & Wade). The five-year survival rate for those with oral cancer is 62.2%. With an increase in oral cancer screenings, survival rate will be higher (2015; Ayoub, Bonnie, Newcomb, McCombs). Oral cancer screenings are an important factor in the regular dental visit, if performed thoroughly and accurately along with adjuncts, they can lead to detection of oral cancer and thyroid problems. By performing thorough and complete extra oral/intra oral assessments, lesions and tissue changes can be screened, and assessed, and if possible the patient will be educated, and referred out appropriately. **Registered dental hygienists** are unlike any other health professional, they see patients bi-yearly, setting them in the perfect position for early detection of oral cancer and thyroid issues. **The RDH is on the front line of oral cancer detection, therefore, performing regular oral cancer screenings are essential to the patient's overall health.**

The purpose of this study was to assess if registered dental hygienists perform thorough and complete extraoral and intraoral assessments for cancer detection through the use of palpation techniques, visualization and adjunctive screening devices. Our goal was to assess if these exams are being performed routinely and thoroughly, and if not, what possible barriers to regular exams may exist. This study will determine if registered dental hygienists perform thorough and complete extra oral and intra oral assessments for cancer detection. If there is a lack of performance of extra oral and intra oral assessments, it is essential to determine the barriers that are preventing the hygienist from performing them. This information will be generalizable to all RDH's.

## Methods

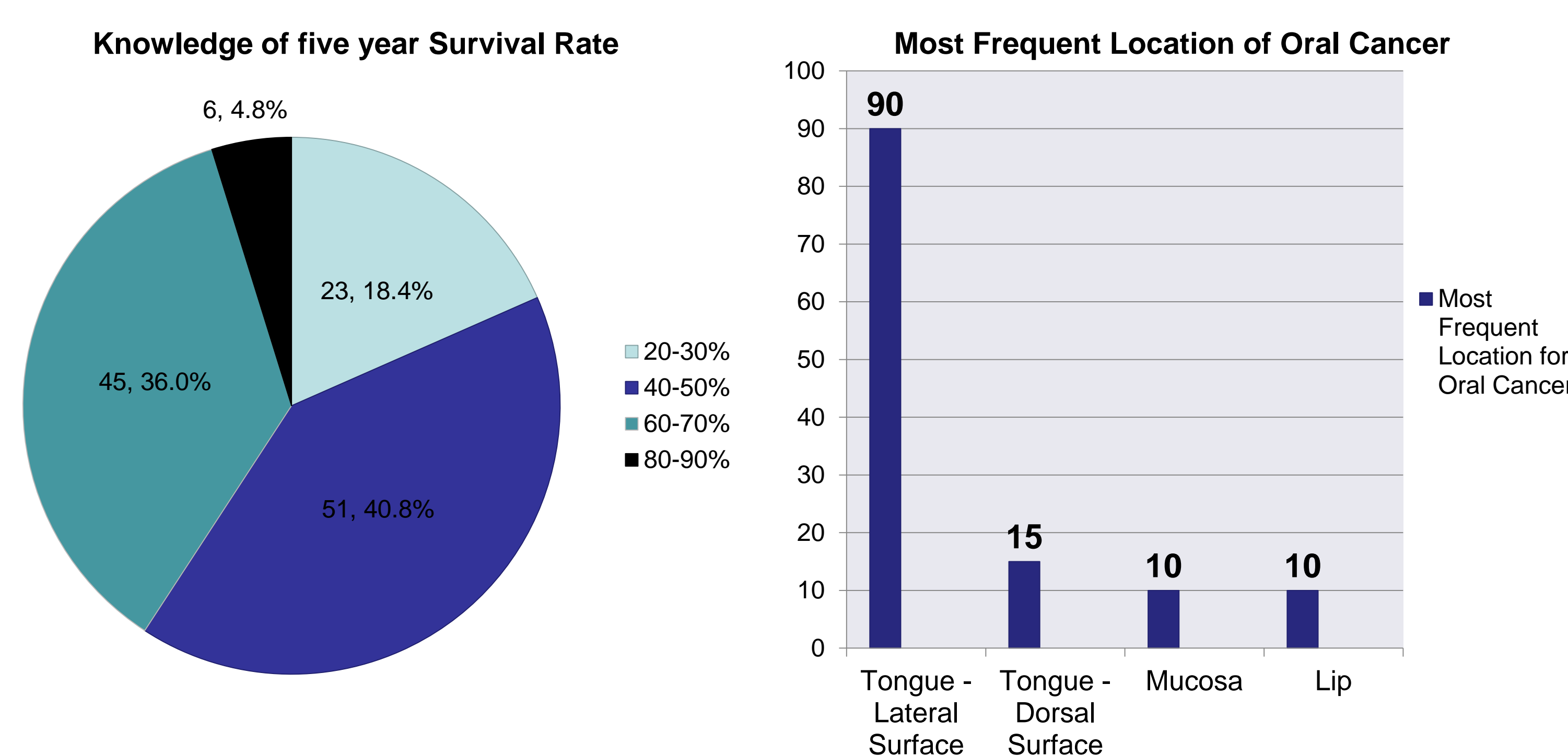
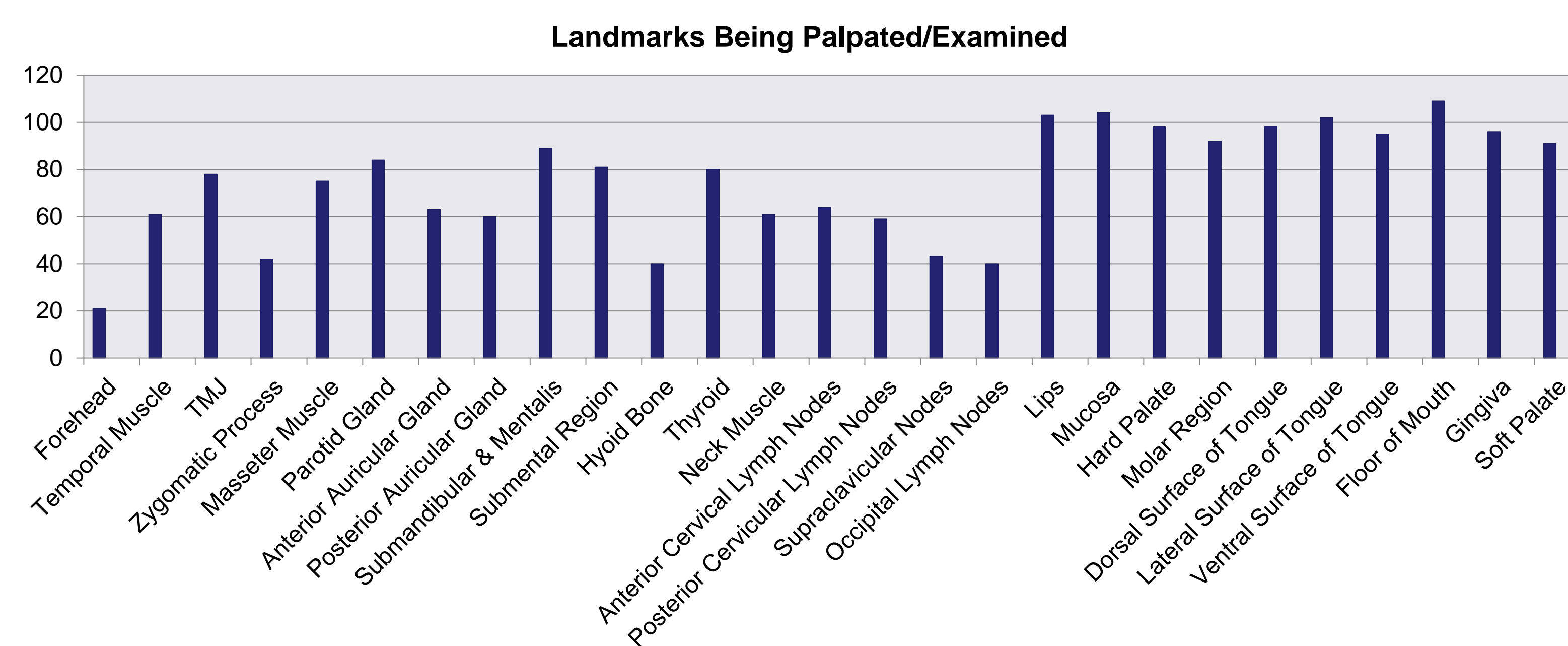
The population for this descriptive survey was registered dental hygienists in the United States with a concentration in Connecticut and Massachusetts. Survey was distributed to Registered Dental Hygienists in the state of Connecticut and Massachusetts. Questions included educational background, licensure information, practice setting in which they are currently working, working experiences, etc. Twenty four multiple-choices, ten scale questions and short answer questions were included in the survey. A comment box was inserted at the end of the survey for explanations and opinions about EO/IO assessment through RDHs as an optional.

Data were collected using the survey website Survey Monkey. In order to reach Registered Dental Hygienists in both states, distribution of the survey through Connecticut Dental Hygiene Association and Massachusetts Dental Hygiene Association, the University of Bridgeport, and social media were accessed. Group members contacted the personnel from the associations for approval or necessary documents. Distribution on the survey were taken place June 15th, in order to give the target population about 1 month to answer the survey. Collection and entering of data occurred in Excel and then complete the analysis at the end of July.

All of the data collected were analyzed by Survey Monkey and transported into Microsoft Excel, and then diagrams and charts (correlational statistical analyses) were utilized to project a visual on the data gathered.

## Results

- 60.8% (n=76) of participants correctly answered the question regarding oral cancer cases diagnosed in the U.S. in 2016
- 40.8% (n=51) of participants chose 40%- 50% as the five-year survival rate for those with oral cancer (Figure 2). The survival rate is over 60%.
- The data shows that 59.3% (n=70) participants have an Associate's Degree in Dental Hygiene, 31.4% (n=37) have a Bachelor's Degree and 9.3% (n=11) have a Master's Degree (Figure 3).
- 95.1% (n=112) of participants performing EO/IO with a high percentage assessing the floor of the mouth, labial mucosa and buccal mucosa (Figure 1).
- 80.4% (n=90) of participants are performing EO/IO assessment on every patient at every visit
  - 100% (n=6) of participants **who did not** perform EO/IO admitted that time shortage for each appointment is the main reason
  - 50% (n=3) of those **who did not do the exam** were given less than 30 minutes per appointment and 33.3% (n=2) say that the dentist performs them.



## Conclusions

This research revealed most registered dental hygienists who responded to the survey perform extra oral and intra oral assessments, with 112 participants stating they do perform EO/IO and 6 stated they do not. The most reported barrier to performing an EO/IO assessment was lack of time during each appointment in which 3 RDHs reported that they have 30 minutes or less for an adult recall appointment. We learned that RDHs do perform EO/IO assessments and they do have knowledge about helping prevent oral cancer. We had questions to test their knowledge, about where they went to school and about their EO/IO experience. It is a relief to know that most of our participants conduct EO/IO or the dentist performs it. Since dental hygiene educational programs include information about oral cancer awareness and performing EO/IO, this indicates that RDH's are contributing in the disease prevention process and by conducting this research promoting RDH's to perform oral cancer screenings.

## Bibliography

- Ayoub, H. M., Newcomb, T. L., McCombs, G. B., & Bonnie, M. (2015). The Use of Fluorescence Technology versus Visual and Tactile Examination in the Detection of Oral Lesions: A Pilot Study. *Journal Of Dental Hygiene*, 89(1), 63-71
- Brilliant, M. G. S., Cameron, J. E., Doucette, H. J., Kim Haslam, S., Tax, C.L. & Wade, S. E. (2015). Oral cancer screening: knowledge is not enough. *International Journal of Dental Hygiene, Early View (Online Version of Record published before inclusion in an issue)*. Doi: 10. 1111/idh. 12172