

# A Retrospective Analysis of Service Delivery by the North Central Health District Oral Health Program, FY2013- FY2015



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## ABSTRACT

Childhood tooth decay is the #1 chronic childhood illness. Untreated tooth decay has social and health consequences manifesting as missed school days, poor grades, poor quality of life, and life-threatening systemic diseases (Chi, van der Goes, & Ney, 2014). The focus of this project is to develop an Oral Health Status Report for the North Central Health District (NCHD) within the Georgia Department of Public Health (GA DPH), based on service delivery data from FY 2013-2015, to describe trends and characteristics, and explore the NCHD's capacity to achieve the Georgia Oral Health Plan recommendations for children and adolescents. A retrospective analysis of NCHD Oral Health service delivery data was performed on data provided to the GA DPH for five focus areas. Preliminary results demonstrate increases dental education provided to school-age children between FY13-14, but overall decreases in the amount of dental treatment, preventive services rendered, and dental educational and screenings in the NCHD across the study period. It is the recommendation of the researcher that the NCHD consider leveraging its existing resources to integrate oral health and primary care, consider increasing the oral health workforce, improve public health access to clinical oral health care, and use its existing data to improve oral health outcomes.

## INTRODUCTION

Dental (Oral) diseases are a major health concern affecting almost every person in Georgia, and as most oral diseases are preventable, the Georgia Department of Public Health's Oral Health Program seeks to promote and implement preventive measures for all of Georgia's citizens. For children, priority for treatment is given to children who need emergency dental services because of pain or infection, and who are eligible for the Free and Reduced Meal Program (185% Federal Poverty Level). Basic dental treatment services includes exams, cleanings, dental sealants, fillings, crowns, and extractions, when feasible. Per the Burdon of Oral Health in Georgia report, Georgia lags behind HP2010 objectives in several oral health indicators, has documented oral health disparities, and a limited workforce pipeline with only one dental school and fourteen dental hygienist programs in the state (GA Dept. of Public Health, 2014). Within the NCHD, the only three public health dental clinics are in Bibb County. The percentage of children receiving public health insurance ranges from 29.8% (Twiggs County) to 51.8% (Bibb County) with a District-wide average of 42.7%. The ratio range of population to dentists is 2,060:1 (Wilkinson County) to 9,600:1 (Jones County). Three counties- Crawford, Hancock, and Twiggs- do not have a dentist.

With acknowledgement of this background, the leadership of the NCHD requested a retrospective analysis of its oral health program to provide a baseline for discussions of community health improvement, possible funding priorities, and to develop strategic directions for priority health concerns.

## METHODS

A retrospective analysis of NCHD Oral Health service delivery data was performed on data provided to the GA DPH for five focus areas. The focus areas included the race and gender of the participants, pay categories, number of new admissions/patients, the diagnostic and preventive services performed, and the number of educational programs delivered.

The data was provided by the NCHD Oral Health Department (educational programs) and the GA DPH (clinical and fiscal) in ACCESS files for FY2013-FY2015. Excel software was then used to graph and provide a descriptive analysis of the data.

## RESULTS

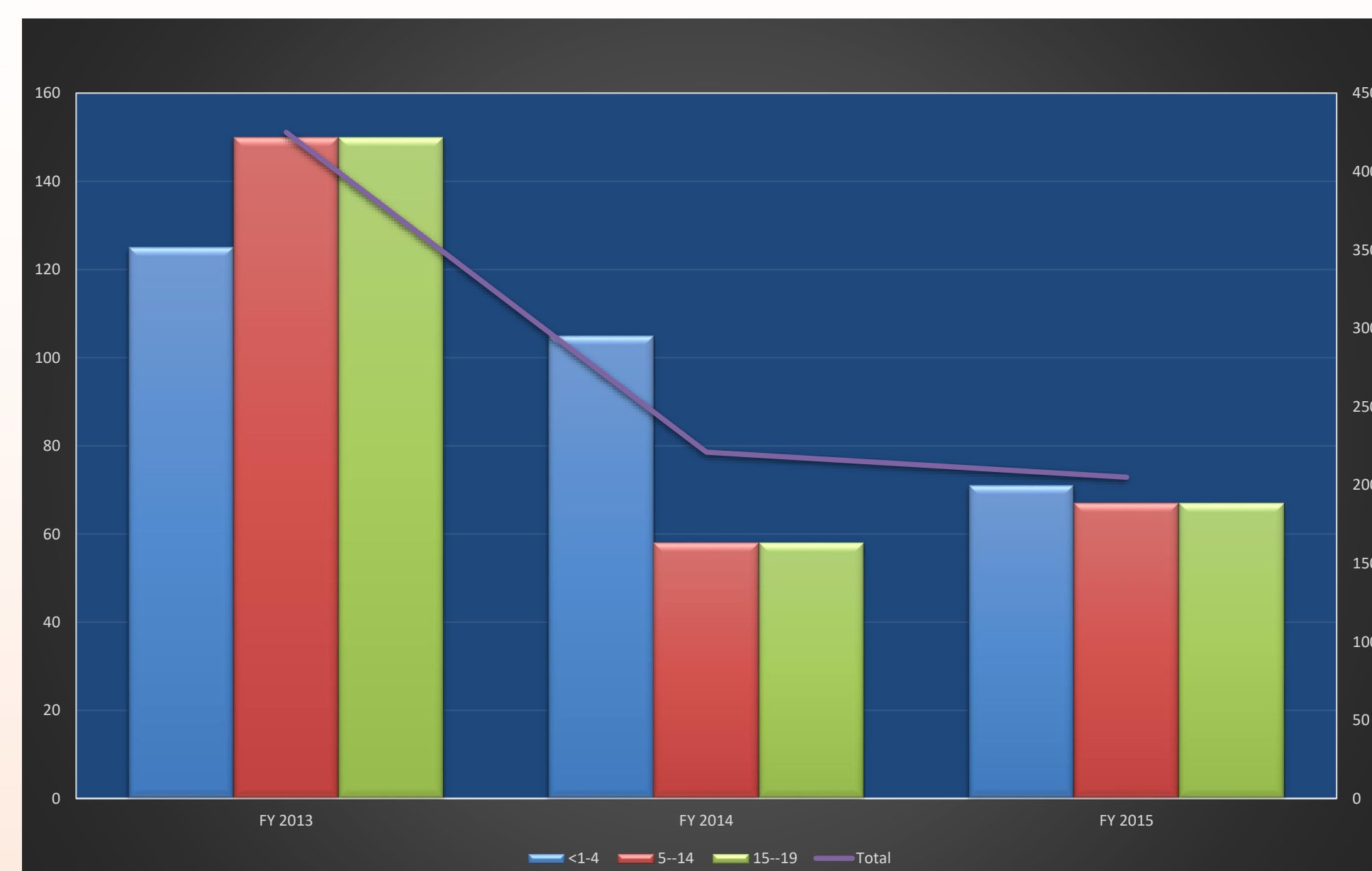


Figure 1. Number of new patient admissions by age

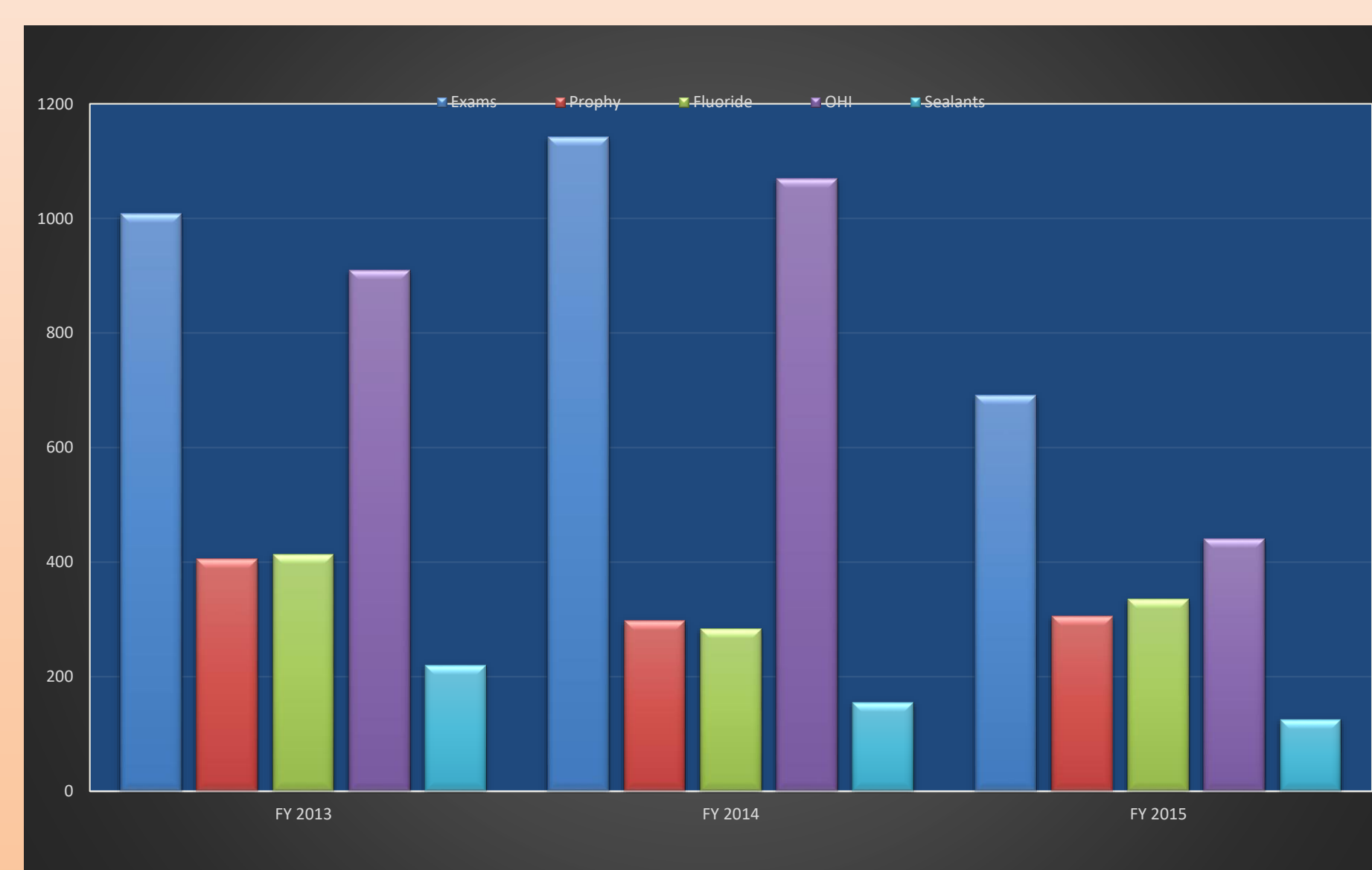


Figure 2. Number of diagnostic (examinations) and preventive services performed by year.

- Diagnostic (exams) and oral hygiene instructions (OHI) were the services performed most frequently between 2013 and 2015.
- The number of sealants placed decreased 56.8% (220-125) from 2013 and 2015.
- Total of 425 new admissions of children, ages <1 to 19, in FY 2013; 221 new admissions in FY 2014; and 205 new admissions in FY 2015.

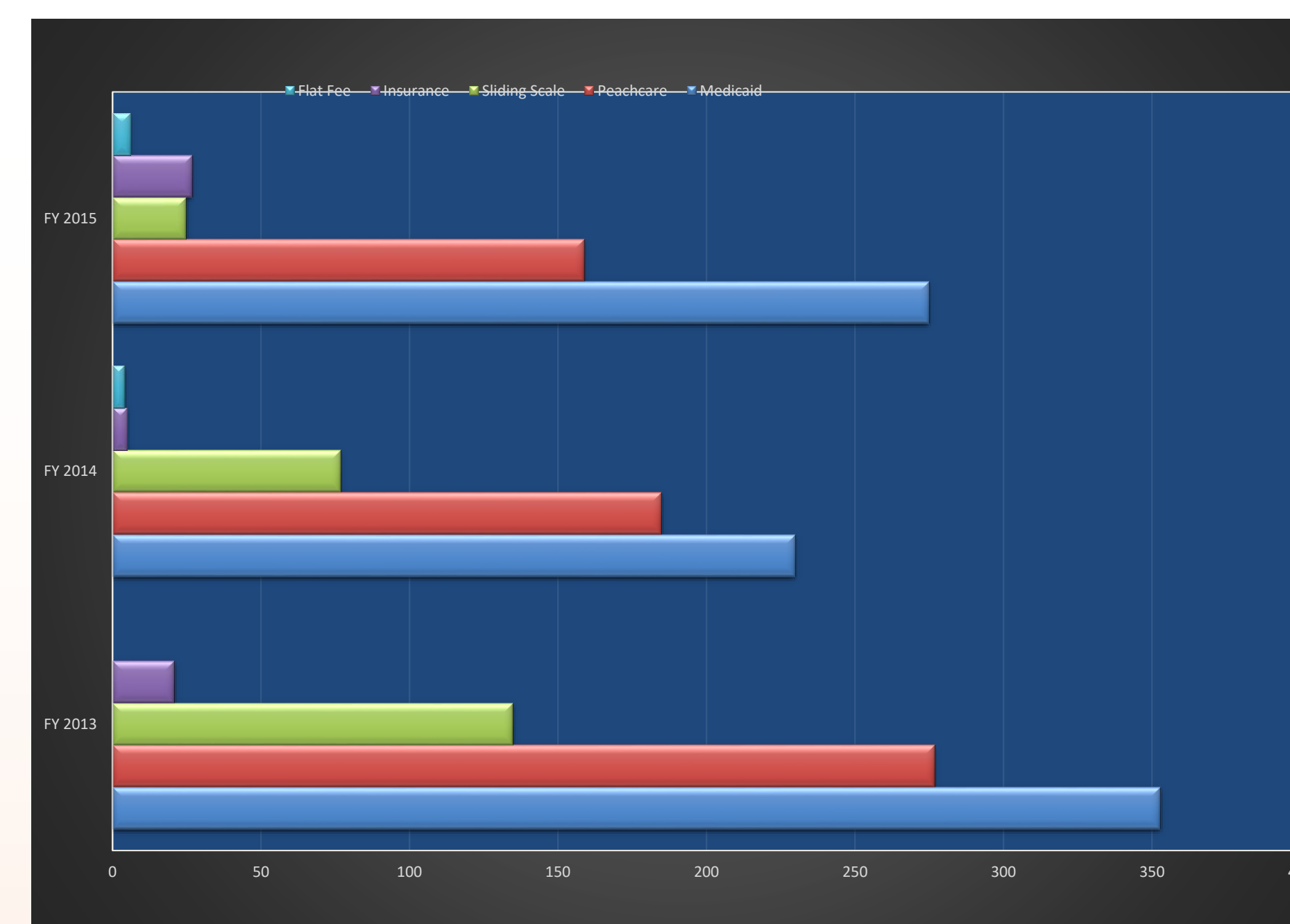


Figure 3. Pay categories of oral health participants.

- The majority of participants in the oral health program were Medicaid and Peachcare eligible
- A 25% increase in participants with private insurance between FY 2013- FY2015

## ACKNOWLEDGMENTS

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## DISCUSSION

The data for NCHD oral heal program indicates an overall decrease in the number of children receiving dental care and oral educational programs. However, the reasons for this trend are a complex combination of limited financial and human resources, oral health infrastructure within county NCHD county health departments, and competing, transient, oral health service providers (per conversations with NCHD oral health staff).

The NCHD oral health staff consists of one dental hygienist and one dentist. Macon-Bibb County Health Department is the only health department within the NCHD with a fully functional dental office; thus, all clinical services are provided at this site. Though centrally located, and in the largest county in the NCHD, it may not be readily accessible to those within the NCHD with limited transportation. Additionally, oral health hygiene instruction is primarily provided during the academic year for public school students, but several months are excluded due to school testing (April), end of school year (May), summer break (May-August), and winter break, Thanksgiving, and Christmas holidays (November-December). Thus, most service delivery is conducted in primarily five months of the fiscal year.

## CONCLUSION

Dental caries is the most common chronic childhood illness in the United States. More than one-quarter of children have tooth decay before entering kindergarten, and by age 19, sixty-eight (68%) percent of children and adolescents will have experienced tooth decay. It is the recommendation of the researcher that the NCHD consider leveraging its existing resources to integrate oral health and primary care, consider increasing the oral health workforce, improve public health access to clinical oral health care, and use its existing data to improve oral health outcomes.

## REFERENCES

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