

Improving the Oral Health of WIC Participants in the State of Alabama

FY 2022-2023

NUTRITION EDUCATION PLAN

October 1, 2022- September 30, 2023

Prepared by:

Jessie Simmons, MS, RD
Amy Minish, RD
Reba Brannan, MPH, RD
Laura Griffin, RD
Natalie Clements, RD
Darlene Hicks, RD
Sharon Eiland, RD
Angela Stevens, RD
Claris Perkins, MS, RD

Northern District Nutrition Director
Northeastern District Nutrition Director
Northeastern District Nutrition Director
West Central District Nutrition Director
Jefferson District Nutrition Director
East Central District Nutrition Director
Southwestern District Nutrition Director
Southeastern District Nutrition Director
Mobile District Nutrition Director

INTRODUCTION

In November 2019, Alabama's State Health Officer, Dr. Scott Harris, announced a collaboration of the Alabama Department of Public Health (ADPH) and the Oral Health Coalition of Alabama (OCHA) to establish the state's first Oral Health Plan.¹ The goals of the Alabama Oral Health Plan 2018-2023 include:

- Increase access to oral health care.
- Provide professional education and integration.
- Increase health literacy.
- Collect oral health data and provide surveillance.
- Prevent oral health problems.

Alabama's Special Supplemental Nutrition Program for Women, Infants, and Children (WIC), a division of ADPH, will continue to focus nutrition education efforts for the next year in accord with the state's oral health objectives. The Nutrition Education Plan (NE Plan) for FY 2022-2023 is titled "Improving the Oral Health of WIC Participants in the State of Alabama". The goals of the NE Plan are:

- To provide all WIC participants nutrition education on recommended behaviors to improve oral health and prevent dental caries.
- To increase redemption rates of WIC approved foods rich in calcium and phosphorus, as well as fruits and vegetables to support good oral health.
- To promote the benefits of breastfeeding and how breastfeeding benefits oral health to all pregnant and breastfeeding WIC participants.

Due to the COVID-19 pandemic, overall dental care and practices were significantly impacted, as dental practices were closed for all care except emergency and urgent services. During reopening of dental practices, privately insured patients' population rebounded to pre-pandemic levels. However, in the publicly insured patient population and children under the age of 5, dental care remained lower than pre-pandemic levels. With this information it remains vital to encourage and reinforce the importance of oral health care in these vulnerable and underserved areas.

ALABAMA NEEDS ASSESSMENT

A large percentage of Alabama residents live in poverty, in rural areas, are of ethnic minority, and/or live with special needs. These factors increase the risk of poor oral health.¹ The WIC Program has the capacity to reach people in the community who may be at risk for poor oral health, and to help prevent oral health problems at the beginning stages of life with nutrition education.

As part of the NE Plan, we want to look at redemption rates of specific WIC approved foods. Milks, cheese, and yogurt are the food categories selected for monitoring of redemption rates as these foods are excellent sources of calcium and phosphorus. The average food benefit redemption rate for the Alabama WIC Program in FY 2021 was 47%, 49%, 35% for milks, cheese, and yogurt, respectively. The cash value benefit (CVB) for fruits and vegetables will also be monitored. The average CVB for fruits and vegetables redeemed was 54%.²

The NE Plan will aim to provide information to WIC staff regarding the role of WIC approved foods (milk, soy milk, cheese, and yogurt) in providing key nutrients for oral health (calcium and phosphorus) and to prevent nutrition-related risk factors that can affect oral health such as, routine sugary drink intake, using nursing bottles improperly, and feeding inappropriate beverages as primary milk source.³ WIC providers will educate WIC families on the relationship between eating healthy and preventing oral health problems. WIC families perceiving the WIC food package as a

valuable resource for creating healthy meals is the ideal outcome, and redemption data will be reviewed to note any change.

EAST CENTRAL DISTRICT NEEDS ASSESSMENT

In 2020, Public Health Officials are reigniting interest regarding overall oral health. According to the nation's overall oral health standings in 2018, Alabama was ranked 29th of 50 states.¹ Since East Central District serves an average of 17,000 WIC participants, each nutritionist in the district acknowledges the importance of a holistic approach to participant education on oral health, including the problems encountered with delivery of these services.

Education on dental hygiene and dental cleanings is not a part of routine prenatal visits, therefore women are not aware of the importance of preventive oral care. Pregnant women who have periodontal disease are at high risk of having a premature or preterm delivery.¹ Based on the 2015 PRAMS survey, 22.1% of expectant mothers report having oral problems that require dental assistance, though many problems go undiagnosed.⁴

The lack of dental services in rural parts of Alabama tend to predict higher incidents of oral diseases. Access to preventive dental services is limited among the state's low-income residents. Only 19 out of 67 counties in Alabama have pediatric dentist.⁴ When the cost of dental care is factored in, then it is unlikely that many families can afford proper dental care.

Many concerns have arisen in the WIC population such as the need of proper oral health care practices. Often it is found that mothers prop bottles to feed infants, fail to clean infant's gums, begin cup training long after it is recommended and offer sugary beverages causing oral health care problems. Eighty percent of infants and toddlers living in poverty have teeth that remain untreated resulting in continued development of new caries at an annual rate of twice that of the preschoolers without caries.⁶ This likely leads to other health problems later in life such as dental decay in adult teeth, spread of infection, impaired speech development and possible systemic illness for children with special needs.⁶

East Central District providers plan to focus our efforts on understanding the benefits of good oral practices and educating participants on those benefits at each visit to the clinic. A WIC Nutritionist will review the WIC Nutritional Risk Criteria Manual to identify risk factors pertaining to oral health to properly assign those risk factors to participants. Since some studies have shown that higher maternal intakes of dairy products, yogurt, and calcium during pregnancy were associated with a reduced risk of dental caries in children⁶, staff will encourage participants to consume these specific WIC foods.

JEFFERSON COUNTY NEEDS ASSESSMENT

Good oral health, just like good nutrition, is an essential part of being healthy. A person's oral health affects speech, sense of smell and taste, ability to chew and swallow as well as the ability to make facial expressions to show emotions such as smiling.⁶ Poor oral health typically is not life threatening but can be very painful and have a devastating effect on a person's ability to eat which can lead to other health complications.

One of the *Healthy People 2020* objectives is to track the proportion of persons aged 2 years and over who had a dental visit in the last 12 months.⁸ In 2016 the percentage was 43.3% with a goal of 49%, although it is too early to determine if the goal will be met.¹ Dental caries is the most common chronic childhood disease worldwide.⁷ Tooth decay affects more than 1 in 4 US children ages 2 to 5, while 1 in 7 adults age 35 to 44 has gum disease.¹ The CDC *National Oral Health Surveillance System* reported that 43% of kindergarteners in the state of Alabama have experience with tooth

decay of which 19% is untreated.⁹ If these statistics are accurate the WIC risk criteria, 381- Oral Health Conditions, is extremely under assigned.³

There is evidence that maternal nutrition status during pregnancy may affect fetal tooth development, formation, and mineralization.⁶ Research has shown that the maternal and infant oral microbiome (microbiological environment) are closely linked before, during and after pregnancy. Factors such as maternal oral disease, diet, and social behaviors all effect the unborn infant’s oral microbiome. Birth mode, feeding mode and oral hygiene habits also have an impact on the infant’s oral health future.⁶ The development of this microbiome plays an important role, along with behavioral development, in the child’s future dental caries susceptibility.

The Jefferson District, made up of three clinics and serving an average of 13,000 participants, is fortunate to offer dental care in each clinic.⁹ Despite the availability and convenience of the dental offices, many of the WIC participants are still unaware of the services or are unaware of the importance of dental care for their children and themselves.

The 2021-2022 Nutrition Education plan will focus efforts on educating our WIC staff about the relationship of dental health and nutritional health and the importance of incorporating oral health information into the education we currently provide our participants. Improving maternal oral health before and during pregnancy through education on healthy lifestyle, behavioral (oral hygiene practices and dietary habits), and social habits can have a compounding positive impact on the infant’s future oral health. Parents need education on how to properly care for emerging and present teeth as well as unadvised practices that can be detrimental to primary teeth such as improper use of nursing bottles and cups and dietary exposure to excess sugar. The WIC staff can help parents understand the importance of key nutrients such as calcium and phosphorus for maintaining optimum oral health and provide information on dental care available to them.

MOBILE COUNTY NEEDS ASSESSMENT

A goal of Alabama’s Nutrition Education Plan is to provide direction toward exceptional oral health for all Alabamians. George Taylor said, “Poor oral health care can result in poor overall health.” In late 2019, the State’s first Oral Health Plan was released.¹ Professional education and integration as well as prevention are key goals of the plan. “Take a 1st Look- A Healthy Smile= A Healthy Child” presentation by the American Academy of Pediatrics recommends that health care professionals become advocates for child oral health because the mouth is the gateway to health.⁷

Mobile County’s population increased by almost 10,000 residents from 2003 to 2017. In that same period, the number of dentists decreased from 138 to 133 providers, a 4% decrease.¹ This decline in available dental care providers increases the need for other health care professionals to bridge the gap and monitor the potential need for supplemental oral health education.

WIC services are provided to over 12,000 pregnant and postpartum women and their children in Mobile County. Each one of these participants are at risk for oral health related conditions such as dental caries and periodontal disease. The WIC Nutrition Education Plan aims to focus on educating both providers and participants about the importance of oral health during pregnancy and throughout childhood as well as the WIC foods that provide nutrients such as calcium and phosphorus, which support a healthy oral cavity. The purchase of calcium and phosphorus rich foods provided by the WIC program will be monitored throughout the entirety of this plan.

As a part of the Nutrition Education Plan, WIC staff will be educated on the need for proper oral health practices and ways the WIC program aims to support our participants to achieve excellent oral health throughout pregnancy and the first five formative years of life. WIC staff can educate participants and their families on practices which may

improve oral health, bring increased awareness to the barriers of oral health, and encourage increased consumption of WIC foods that provide calcium and phosphorus.

NORTHEASTERN DISTRICT NEEDS ASSESSMENT

In 2018, Alabama ranked 29th in the nation's overall oral health standings.¹ The Northeastern District strives to improve the overall health for participants of the WIC program and recognizes the need to shift focus towards oral health and related nutrition impacts. Major barriers to oral health for our participants include a combination of education and accessibility.

WIC participants in the Northeastern District lack education on the consequences dental problems may have on overall health and how routine daily dental hygiene practices can improve their health. Access is limited to basic dental hygiene items such as toothbrushes and dental floss due to socioeconomic status. The participant's knowledge is low regarding the need for foods (dairy and non-dairy) containing calcium and phosphorus. The Northeastern District suffers from poor dentist to population ratios with no dental clinics offering services for low to no income residents in 5 of the 11 counties of the district including DeKalb, Randolph, St. Clair, Shelby, or Talladega counties.¹

Women with Pregnancy Medicaid often have poor dental insurance coverage options after age nineteen. Dental cleanings are not a part of routine prenatal visits and women are often unaware of the importance of preventive care. According to a 2015 PRAMS survey, "22.1% of pregnant women needed to see a dentist for a problem; 40.6% of pregnant women had a dental cleaning during pregnancy (24.6% did not think it was safe to have dental care during pregnancy)".⁴ Education on oral hygiene is often not emphasized as a part of prenatal care and therefore women do not brush or floss daily.

Mothers of WIC infants frequently show a lack of awareness regarding the knowledge and skills for daily dental hygiene practices with growing infants. It is often found that moms prop bottles to feed, offer sugary beverages, fail to clean gums and begin cup training late.³ Education is needed as infants begin getting their first teeth to establish healthy oral routines.

Recent data of children in Alabama show 30-50% in low-income homes have early childhood caries.⁶ Potential risks for children often identified in WIC visits include infrequent daily dental hygiene (brushing and flossing) and diets high in sugary foods and beverages.³ Caregivers are not aware of calcium and phosphorus rich foods that can benefit oral health. More education on health problems associated with lack of regular brushing, flossing, and healthy foods will help reduce dental problems.

The Northeastern District will focus our education efforts on helping participants improve their oral health. Providers need education connecting good oral practices and the impact on overall health for all categories of the WIC program. Nutrition Directors will review with providers the criteria in the WIC Risk Code Manual to correctly identify risk factors associated with oral health deficiencies. Staff will emphasize the importance of daily dental hygiene methods and practices at all clinic visits. In addition, the redemption and consumption of WIC foods high in calcium and phosphorus will be encouraged through education and monitoring of redemption reports.²

NORTHERN DISTRICT NEEDS ASSESSMENT

The Northern District of the Alabama WIC Program serves over 23,000 participants. The WIC Program aims to deliver individualized nutrition education and to provide healthy foods and referrals for our WIC participants to improve health outcomes. This NE Plan aims to emphasize both nutrition recommendations for key nutrients found in calcium and phosphorus rich foods and routine oral health behaviors- that can decrease the incidence of dental caries.^{8,9}

Within the Northern District counties, the greatest dental health professional shortage areas are in Winston, Franklin, Lauderdale, Colbert, Marion, and Jackson counties.¹ The lowest percentages of community water fluoridation

in the Northern District are in Winston, Franklin, and Lawrence counties. It is estimated that 27-30% of elementary school-aged children in the Northern District have untreated dental decay, and approximately 47-51% have experienced dental decay.¹ For pregnant women surveyed in Alabama, approximately 22% needed to see a dentist for a problem, and only 41% of pregnant women in Alabama had their teeth cleaned by a dentist during pregnancy, according to the Alabama State Oral Health Plan 2018-2023.¹

The Northern District WIC providers will encourage WIC participants to achieve adequate intake of key nutrients and provide education on incorporating WIC foods that are rich in these nutrients in their daily diets. Intake of dairy products and calcium during pregnancy and childhood has been shown to decrease prevalence of dental caries in young children.^{7,12} The Northern District WIC providers are in a good position to work on prevention of dental caries within our communities starting at the beginning stages of life, due to our target population of pregnant women and young children, and the provision of several Alabama WIC approved foods that are rich in calcium and phosphorus- milk, soy milk, cheese, and yogurt.¹⁰

Not only will Northern District WIC providers promote oral health practices such as brushing/flossing teeth, they will also screen for nutrition-related risk factors which can affect oral health such as routine sugary drink intake, using nursing bottles improperly, and feeding inappropriate beverage as primary milk source. Using WIC risk factors assigned, we would like to get a more detailed picture of our district's need for oral health nutrition education.

SOUTHEASTERN DISTRICT NEEDS ASSESSEMENT

In 2018, Alabama was 29th in the nation's overall oral health standing. Low-income populations have a greater risk for poor oral health and reduced quality of life. Though progress has been made, disparities remain in population groups as classified by sex, income, age, and race/ethnicity.¹ The goal of the Southeastern District is to improve the oral health of our WIC participants by addressing lack of education on oral care, to provide foods high in calcium and phosphorus to promote prevention of dental carries, and to increase redemption of foods promoting good oral health.¹²

In the Southeastern District, several risk factors affecting oral health can be identified in all categories of WIC participants including pregnant, infant and child. Most dentists recommend 1-2 dental visits per year to promote good oral hygiene habits and prevent tooth decay.⁶ The 2012 PRAMS Surveillance Report states 41.9% of prenatal women had their teeth cleaned during pregnancy, and 23.4% did not think it was safe to have dental care during pregnancy.⁴ Unfortunately, the 2015 PRAMS survey reveals a lower percentage of prenatal women had their teeth cleaned during pregnancy (40.6%) and more thought it was unsafe to have dental care during pregnancy (24.6%).⁴ The results demonstrate a need for education in this area.

As indicated in the chart below, infants are at increased risk for poor oral hygiene due to bottles being propped during feedings, using bottles improperly (including giving sweetened beverages to infant), and not weaning from bottle in a timely manner.³ The Center for Disease Control reports dental caries (cavities) as the most common chronic disease of childhood worldwide.⁷ Risk factors identified during WIC appointments include giving sugary beverages, not brushing teeth appropriately, and giving beverages other than water at bedtime.

The Oral Health Office of the Alabama Department of Public Health released the percentages of fluoride in public drinking water supplies for 2017. Three counties within the Southeastern District have been identified as having less than 25% of its public drinking water receiving fluoridation. Nine of the ten counties within the district do not meet the 2020 Healthy People national goal of 79.6% of the population to receive the benefit of community water fluoridation. The Southeastern District averages 47.4% of residents are receiving fluoridated water.¹

Another barrier to adequate oral health is many full coverage Medicaid participants are not aware dental care is a benefit available for their children. These same dental benefits do not extend to women above the age of 19, often

resulting in poor oral health during pregnancy and post-partum. Within the Southeastern District, there are limited dentists who accept Medicaid in our rural communities.⁴

The Southeastern District will review with providers the link between good oral health and general health and well-being. The WIC Risk Code Manual will be used to educate staff to better identify deficiencies of oral health care in WIC participants. The staff will encourage increased intake of foods promoting mineralization of teeth and prevent dental carries.¹² Risk factors and redemption rates will be monitored for improvements.

SOUTHWESTERN DISTRICT NEEDS ASSESSMENT

Approximately 27% of Alabama's children live in poverty according to data analysis from the United States Census Bureau.⁹ Additionally, a large percentage of Alabama residents live in rural areas, are of ethnic minority, and/or live with special health needs. These factors increase the risk of poor oral health.¹ Appropriate dental care is essential for Alabama residents because oral health affects the entire body.

The Nutrition Education Plan for FY 2021-2022 will strive to educate WIC staff and participants regarding the need for good oral health practices for women, infants, and children. One goal is to increase redemption rates of WIC foods high in calcium and phosphorus such as milk, soy milk, cheese, and yogurt.¹⁰

It is not uncommon for WIC participants to tell WIC providers that fruit juice is the primary beverage offered to the child throughout the day. Parents usually are aware sugary beverages such as soda and sweetened tea can lead to obesity and dental caries. They are usually unaware excessive juice intake can also cause oral health problems. Additionally, participants need to be educated how bottles and inappropriate training cups used past 14 months of age are roadblocks to good oral health.⁶

Many of the pregnant women participating in the WIC program are unaware of the importance of good dental hygiene in preventing gum disease, which can increase the risk of having a premature baby.¹ Additionally, higher intake of calcium-rich foods during pregnancy tends to lower the risk of dental caries in children, as fetal tooth development can begin around 13 weeks gestation.⁶

As the WIC staff is educated on oral health practices, they will be able to share this information that may help prevent dental caries with WIC participants. Targeted education on WIC foods should increase redemption rates of calcium and phosphorus rich foods. This education may come from materials such as tip sheets on how to incorporate milk into recipes or dairy stickers to give to children. Participants are encouraged not only by the education process, but also what they see around the clinic. Eye-catching posters on consuming more milk or soy milk and less juice or sugary beverages are needed. Use of appropriate training cups, such as a spout less cup, as incentive items could help combat this barrier, since cost is a barrier for this demographic.

WIC participants are at risk for poor oral health. Increased redemption rates of calcium and phosphorus rich foods, and education on the importance of appropriate beverages and cups are objectives to improve the oral health of this population.

WEST CENTRAL DISTRICT NEEDS ASSESSMENT

In the ADPH 2018 – 2023 State Oral Health Plan, it was stated that “the oral cavity is the gateway of the body.^{1”} This provides validation among the experts that oral health plays an integral part in the overall general health and well-being of all Americans. WIC staff have the perfect opportunities to teach families about the importance of oral health.

According to the state oral health plan and the 2015 PRAMS, 22% of pregnant women needed to see a dentist for a problem and 40.6% of pregnant women had a dental cleaning during pregnancy.^{1,4} The plan also states that less than half of Alabama Medicaid children received a dental exam or a preventive dental service in 2017.¹ WIC and

Medicaid serve the same population. The role that WIC can play in meeting and achieving many of our state oral health plan objectives cannot be understated.

WIC in the West Central District serves over 10,000 participants. Many of those participants live in rural, black-belt counties where there are no dental offices. The dentist ratio in rural Alabama is 1 dentist to 4400 people.¹ Many of our participants do not have reliable transportation to a dentist. The combination of lack of dentists and transportation issues means that many adults and children in our district need preventive education concerning good oral health and how to prevent dental caries. During FY 2018 and 2019, over 3200 children in our district were routinely fed high sugar beverages daily and used bottles improperly.³ This statistic solidifies the need for education among our population.

During times of rapid growth, the body has increased nutrient needs for proper bone development. Calcium and phosphorus play a vital role in this development.¹² WIC provides milk, cheese, yogurt, and soy milk which are calcium and phosphorus rich foods¹⁰ that participants may not otherwise receive. According to risk factor data, over 2000 patients in West Central district are failing to meet the required dietary guidelines although these numbers are likely higher.³

West Central District staff will focus our education efforts on recommended behaviors to improve oral health and prevent dental caries in our population. Providers need evidence-based training and educational materials on how to impress upon our participants the need for and importance of oral health to achieve results. Incentive items are always a welcomed addition to help support our education efforts. By educating and providing the necessary tools to patients, we expect redemption rates for calcium and phosphorus rich foods to increase, improper use of bottles and daily sweetened beverages will decrease, and overall oral health for our WIC population will improve.

EVALUATION

During the COVID- 19 pandemic, Alabama WIC made changes to continue to serve participants remotely. The traditional methods of providing service and education were not available. Due to that data from 2020-2022 does not adequately reflect normal operations and has potential to be skewed. Overall, during 2020-2022, Alabama WIC participants did show improvements in 2 of the 5 Risk Factors that were being monitored. Risk Factor 425.3: Using bottles improperly improved by 16%. Risk Factor 425.2 Routine sugary drink intake improved by 24%. The other risk factors, Inappropriate beverage as primary milk source, Routine sugary drink intake, and Oral health conditions, did not show improvement. Risk factor 411.2 Using bottles improperly infants significantly worsened by more than 100% (from a state average of 23 incidents in 2017-2019 to a state average of 47 incidents). Although the improvements are notable, the declines in the other risk factor categories could be explained by the changes in services and education opportunities for Alabama WIC and other medical/dental services.

By extending the NE Plan by an additional year and reinstating in person service WIC visits, Alabama WIC staff will continue to aim to meet the oral health goals of this current Nutrition Education Plan. Alabama WIC will continue to focus on WIC foods choices that includes calcium and phosphorus rich foods, as well as fruits and vegetables. We will also focus on educating participants on oral health behaviors and routines. At the conclusion of FY 2022-2023 Alabama WIC will meet our goals for better oral health in Alabama WIC participants.

FY 2022-2023 Nutrition Education Plan Goals and Objectives

State Goal 1: For October 1, 2022, through September 30, 2023, to provide all WIC participants nutrition education on recommended behaviors to improve oral health and prevent dental caries.

I. Objectives

- i. Encourage completion of oral health lessons on wichealth.org to reinforce knowledge on oral health for participants. (Increasing completion to 25% of participants)
- ii. Provide oral health incentives and nutrition education handout to all WIC participants. (100% of participants)

II. Evaluation

- i. Statistics in wichealth.org
- ii. Incentives and nutrition education handouts provided to all participants and documented in Crossroads.
- iii. Monitor Crossroads Risk Factor report (oral health nutrition related risk factors).

State Goal 2: For October 1, 2022, through September 20, 2023, to increase redemption rates of WIC approved foods rich in calcium and phosphorus (increase by 25%), as well as fruits and vegetables (increase by 25%), to support good oral health.

I. Objectives

- i. Discuss changes in WIC approved foods rich in calcium and phosphorus (Greek yogurt, canned beans).
- ii. Provide recipes for WIC approved foods rich in calcium and phosphorus and encourage intake.
- iii. Encourage increased fruits and vegetables intake to recommended daily intake.
- iv. Provide age – appropriate snack ideas to include fruits and/or vegetables.

II. Evaluation

- i. Monitor Crossroads Redemption Rates specifically for WIC approved foods rich in calcium and phosphorus and CVB for fruits and vegetables.

State Goal 3: For October 1, 2022, through September 30, 2023, to promote the benefits of breastfeeding and how breastfeeding benefits oral health to all pregnant and breastfeeding WIC participants.

I. Objectives

- i. Increase knowledge of WIC staff regarding oral health for pregnant and breastfeeding moms and infants.
- ii. Discuss importance of oral health to pregnant and breastfeeding moms and infants with WIC participants.
- iii. Encourage wichealth.org oral health lesson on healthy teeth for mom and infant.

II. Evaluation

- i. Review care plan documentation of completion of education provided.
- ii. Statistics in wichealth.org

State Goal 1: For October 1, 2022, through September 30, 2023, to provide all WIC participants nutrition education on recommended behaviors to improve oral health and prevent dental caries.

	ACTION STEPS	RESOURCES	TARGET DATES	EVALUATION
1.	Using the VENA approach, educate WIC families about the oral health benefits of WIC foods during their certification or secondary nutrition education visit.	-Clinic Staff -State WIC Staff -Health Benefits educational materials -Recipes using Calcium/Phosphorus containing WIC foods -Clinic Staff Tip Sheet (Attachment 2) -Incentive items as available	December 1, 2022 – September 30, 2023	Document education on Nutrition Education screen “NE Plan” in Crossroads.
2.	Conduct 1 additional activity per year promoting oral health benefits of WIC foods. (Attachment 3)	-Clinic WIC Coordinator -District Nutrition Director	December 1, 2022 – September 30, 2023	Documentation of activity on file at each clinic site.
3.	Monitor and evaluate wichealth.org lesson completion. (See attachment 2 for lesson suggestions).	-Clinic WIC Coordinator -District Nutrition Director -State WIC Staff -wichealth.org statistics	April 30, 2023 October 31, 2023	Copy wichealth.org statistics with Clinic Progress Report. (Attachment 5)
4.	Monitor and evaluate change of oral health risk factors.	-Clinic WIC Coordinator -District Nutrition Director -State WIC Staff -Risk Factor Summary	April 30, 2023 October 31, 2023	Copy of Risk Factor Summary on file in clinic with Clinic Progress Report. (Attachment 5)
5.	Submit Evaluation Report. (Attachment 4)	-Clinic WIC Coordinator -Clinic Progress Report	April 30, 2023 October 31, 2023	Copy of Clinic Evaluation Report to District Nutrition Director. Copy on file at each clinic site.
6.	Submit District Evaluation Report. (Attachment 6)	-District Nutrition Director -District Redemption Report (Attachment 5) -District Risk Factor Summary Report -District Evaluation Report	April 30, 2023 October 31, 2023	Copy of District Evaluation Report on file with District Nutrition Director.

State Goal 2: For October 1, 2022, through September 30, 2023, to increase redemption rates of WIC approved foods rich in calcium and phosphorus (increase by 25%), as well as fruits and vegetables (increase by 25%), to support good oral health.

	ACTION STEPS	RESOURCES	TARGET DATES	EVALUATION
1.	Using the VENA approach, educate WIC families about the health benefits of fresh fruits and vegetables during their certification period.	Clinic staff State WIC staff Health benefits educational materials Recipes using fruits and vegetables Clinic Staff Tip sheet (Attachment 2) Incentive items as available	December 1, 2022 – September 30, 2023	Document education on Nutrition Education screen in Crossroads.
2.	Monitor and evaluate change of redemption rates for Calcium/Phosphorus rich WIC foods – milk, cheese, yogurt, and soy milk— to determine if the education provided regarding oral health benefits has any effect on redemption rates.	-Clinic WIC Coordinator -District Nutrition Director -State WIC Staff	April 30, 2023 October 31, 2023	Copy of AL EBT Issues and Redeemed by Clinic and Subcategory on file in clinic with Clinic Evaluation Report. (Attachment 5)
3.	Monitor and evaluate change of CVB rates for fruits and vegetables— to determine if the education provided regarding oral health benefits has any effect on redemption rates.	-Clinic WIC Coordinator -District Nutrition Director -State WIC Staff	April 30, 2023 October 31, 2023	Copy of AL EBT Issues and Redeemed by Clinic and Subcategory on file in clinic with Clinic Evaluation Report. (Attachment 5)
4.	Conduct 1 additional activity per year promoting health benefits of fruits and vegetables (See Attachment 3 for list of approved activities.)	Clinic WIC Coordinator District Nutrition Director	December 1, 2022 – September 30, 2023	Documentation of activity on file at each clinic site
5.	Submit Clinic Evaluation Report (Attachment 4)	Clinic WIC Coordinator Clinic Progress Report form (Attachment 4)	April 30, 2023 October 31, 2023	Copy of Clinic Evaluation Report to District Nutrition Director. Copy on file at each clinic site.
6.	Submit District Evaluation Report (Attachment 6) to State WIC Office.	District Nutrition Director District Evaluation Report form (Attachment 5)	April 30, 2023 October 31, 2023	Copy of District Evaluation Report (Attachment 6) on file with District Nutrition Director

State Goal 3: For October 1, 2022, through September 30, 2023, to promote the benefits of breastfeeding and how breastfeeding benefits oral health to all pregnant and breastfeeding WIC participants.

	ACTION STEPS	RESOURCES	TARGET DATES	EVALUATION
1.	Using the VENA approach, educate WIC families about the health benefits of breastfeeding during their certification period.	-Clinic Staff -State WIC Staff -Educational materials	December 1, 2022 – September 30, 2023	Document education on Nutrition Education screen in Crossroads.
2.	Conduct 1 additional activity per year promoting health benefits of breastfeeding. (Attachment 3)	-Clinic WIC Coordinator -District Nutrition Director - Breastfeeding Awareness Month campaign.	April 30, 2023 October 31, 2023	Documentation of activity on file at each clinic site.
3.	Submit Clinic Evaluation Report (Attachment 4)	-Clinic WIC Coordinator -Clinic Progress Report	April 30, 2023 October 31, 2023	Copy of Clinic Evaluation Report to District Nutrition Director. Copy on file at each clinic site.
4.	Submit District Evaluation Report (Attachment 5)	-District Nutrition Director -District Evaluation Report	April 30, 2023 October 31, 2023	Copy of District Evaluation Report (Attachment 5) on file with District Nutrition Director.

REFERENCES

1. Alabama Department of Public Health. 2019. *State Oral Health Plan 2018-2023*.
2. Alabama WIC Program Statewide Data. *FY 2019-2020 NE Plan Redemption Report*.
3. Alabama WIC Program Statewide Data. *Risk Factor Summary Report*.
4. Alabama Department of Public Health. 2019. *PRAMS Surveillance Report – Alabama 2015*.
5. Johnson, Tommy DMD. 2017. “Decay Experience in Young Children of Alabama.” *Alabama Department of Public Health, Oral Health Office*.
6. Simpson, Richard DMD, Allen, Grant DMD. 2018. “Take a First Look: A Healthy Smile Equals a Healthy Child.” *American Academy of Pediatrics, Alabama Chapter*.
7. Tanaka K, Miyake Y, Sasaki S, Hirota Y. 2012. “Dairy products and calcium intake during pregnancy and dental caries in children.” *Nutrition Journal* 11 (33).
8. Healthy People 2020 [Internet]. Washington, DC: U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. Accessed December 2019. Available from: www.healthypeople.gov.
9. Mitchell, Stephen. 2017. “Dental Status and Needs of Children Ages 0-5 in Alabama.” *UAB Department of Pediatric Dentistry*.
10. Office of Disease Prevention and Health Promotion. “Food Sources of Calcium.” *Dietary Guidelines for Americans, 2015-2020*. Web. Accessed December 2019.
11. Food and Nutrition Board, Institute of Medicine. 2011. “Dietary Reference Intakes for Calcium and Phosphorus.” *National Academy of Sciences*. Web. Accessed December 2019.
12. Tanaka K, Miyake Y, Sasaki S. 2010. “Intake of dairy products and the prevalence of dental caries in young children.” *Journal of Dentistry* 38 (7): 579-583.