



CSNA 2024 Presentation: Innovative Solutions for Managing Special Meal Diets with Technology

Welcome to our presentation on innovative solutions for managing special meal diets using technology in school nutrition programs. We'll explore the challenges faced by school nutrition professionals and how cutting-edge tools can help ensure safe, nutritious meals for students with dietary restrictions.



The Problem: Stats on Special Diets

1/13

Children with Food Allergies

About 1 in 13 children in the U.S. has a food allergy—roughly two children per classroom (FARE, Food Allergy Research & Education).

50%

Increase in Allergies

50% increase in childhood food allergies in the last decade (CDC).

90%

Top 9 Allergens

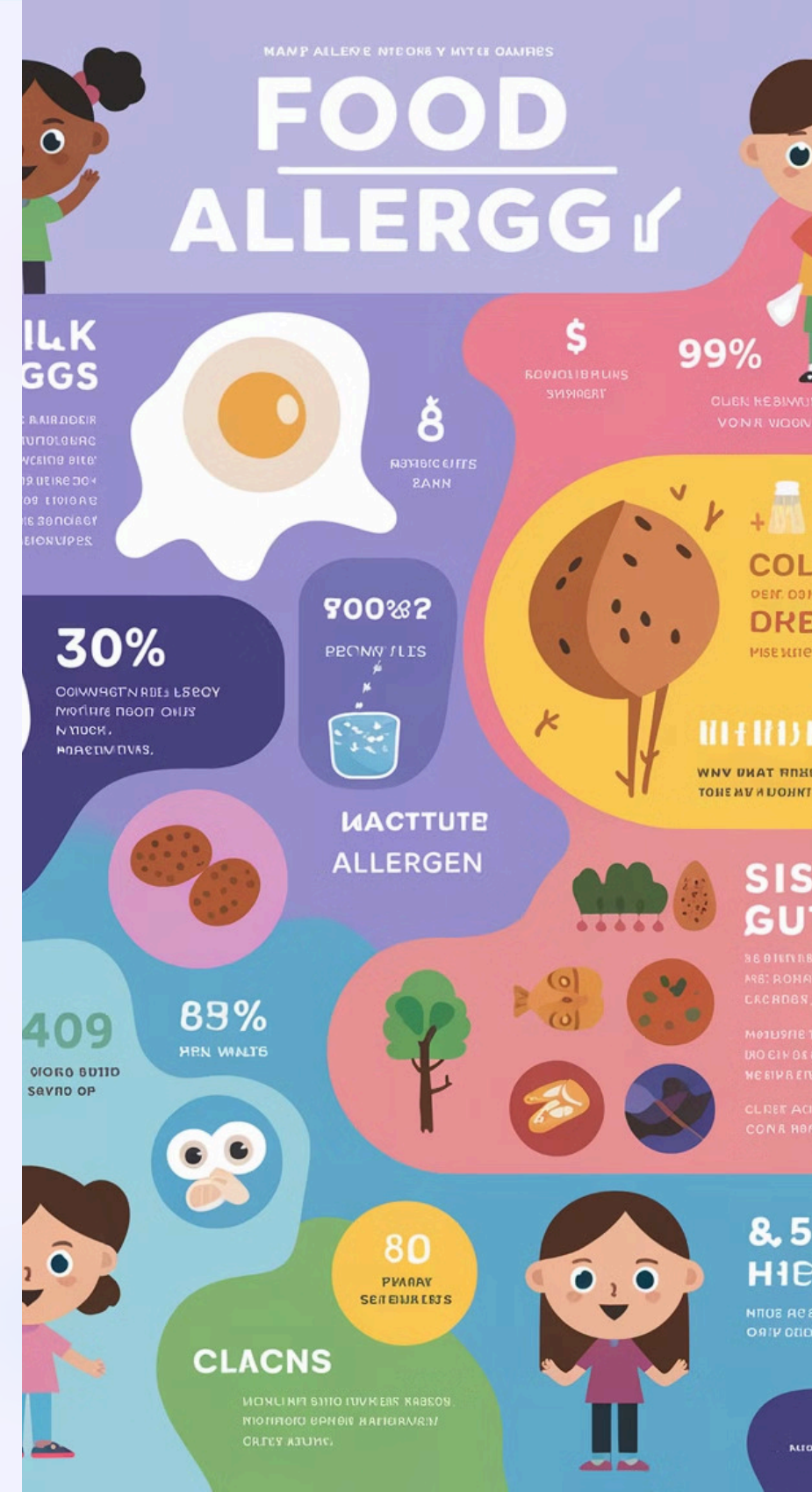
90% of food allergies are caused by top 9 allergens (CDC).

15%

Reactions in School

More than 15 percent of school-aged children with food allergies have had a reaction in school.

(FARE)



Top 5 Challenges in Managing Allergen-Free School Meals

- 1 Accurate Allergy Tracking & Student Identification**
Keeping up-to-date, accessible allergy records across the department is critical to prevent health risks.
- 2 Safe Allergen-Free Meal Preparation**
Cross-contamination prevention requires dedicated tools, spaces, and ongoing staff training.
- 3 Variety in Allergen-Free Meal Options**
Limited ingredient options make it hard to offer nutritious, appealing, allergen-free meal choices.
- 4 Managing Production Quantities to Avoid Waste**
Accurate demand forecasting is difficult, often leading to overproduction or underproduction.
- 5 Specialized Handling for Severe Allergies**
Strict protocols and consistent staff training are essential for students with severe, life-threatening allergies.

Solution Needed: Systems for tracking, forecasting, communication, and safe handling tailored to students' dietary needs.

Using Technology for Special Diets: Vision vs. Risks

Importance of Technology

Technology tools can alleviate the burden of manual allergen management, improve accuracy, and increase meal safety.

Risks to Watch For When Using AI:

Chat GPT prompt

Tool 1 - ChatGPT: Allergen-Free Recipe & Menu Development

USE CASE 1:

Purpose: Generate allergen-free, NSLP-compliant recipe ideas.

How It Works: Enter dietary restrictions (e.g., wheat-free, soy-free) to receive recipe suggestions.

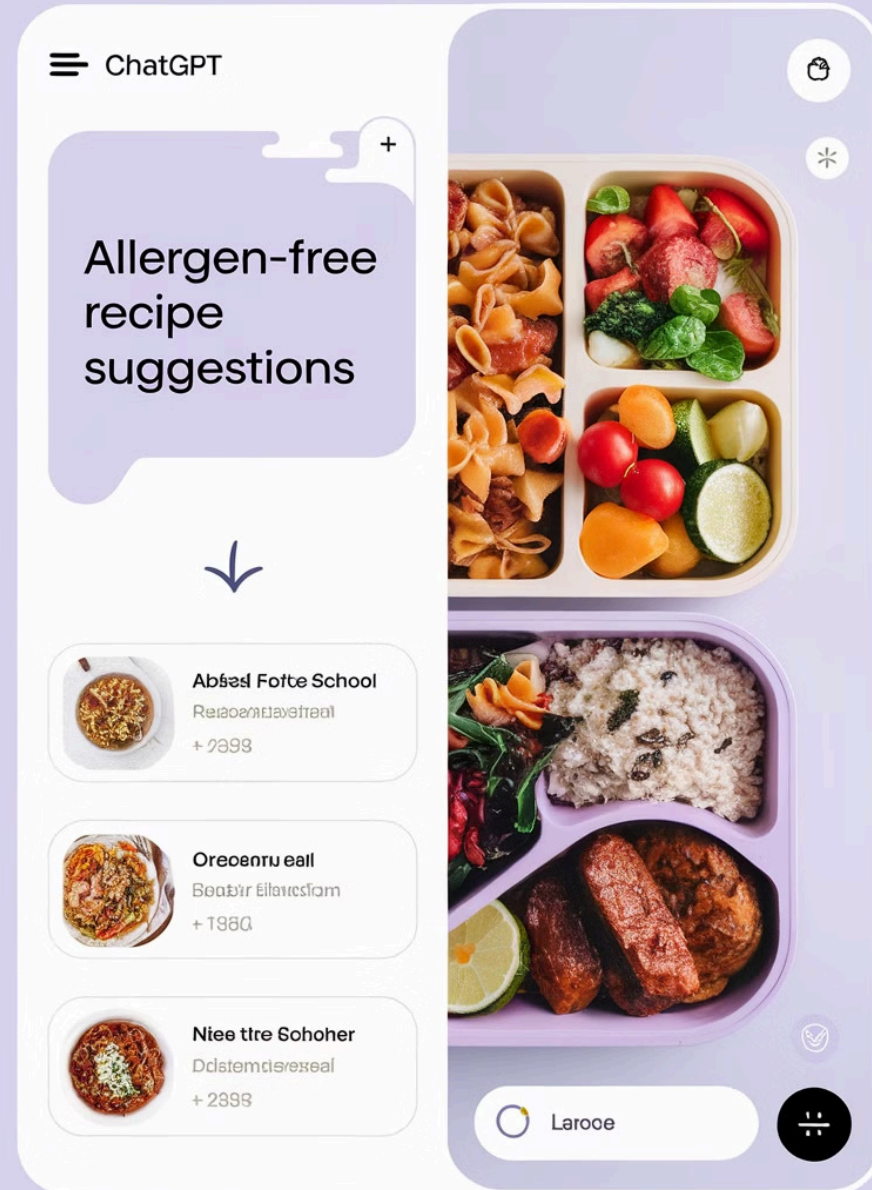
Example: [Chat GPT Prompt 1](#)

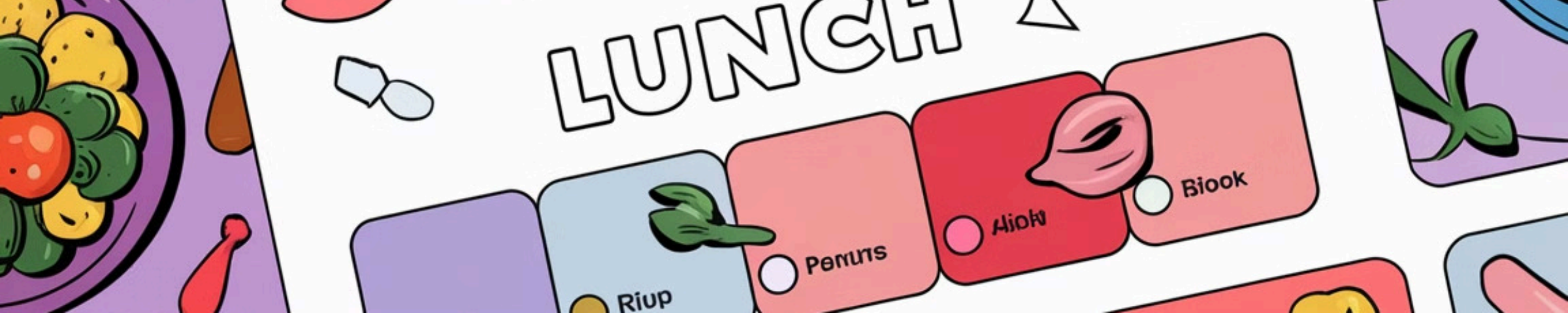
USE CASE 2:

Purpose: Generate weekly allergen-free menu plans.

How It Works: Chat suggests balanced meals excluding specific allergens.

Example: Chat GPT Prompt 2





Tool 2 - Canva's Magic Studio: Accessible Menu Designs



Purpose

Generate student-friendly, allergen-safe menu designs, and translate into any language.



How It Works

Magic Write creates descriptions that highlight allergen-free ingredients.



Example

Labeling a meal as "Wheat-free and dairy-free, prepared in a dedicated area with strict allergen controls to prevent cross-contamination."

Application: Use Canva to create menu descriptions that inform students and parents about allergen-free options.

Tool 3 - FIG: Automated Allergen and Ingredient Verification

1

Image Recognition

Uses advanced image recognition and database analysis to identify allergens in recipes and ingredient lists.

2

Cross-Referencing

Cross-references ingredients against a database of known allergens (such as gluten, nuts, dairy) and flags potential cross-contamination risks.

3

Verification

Great for double-checking ingredients.



Tool 4 - Online Ordering - School Nutrition and Fitness: Menu Customization for Allergen Transparency

Purpose

Online ordering from [SchoolNutritionandFitness.com](https://www.schoolnutritionandfitness.com) allows for allergen-specific meal ordering, helping schools manage dietary needs.

How It Works

Parents can view menu items with allergen information and choose safe options for their children.

Example

Allowing families to order wheat-free, dairy-free meals directly from the school's online portal.



Q&A: Open floor for questions

We've reached the end of our presentation on innovative solutions for managing special meal diets with technology. Now, we'd like to open the floor for any questions you may have about the tools and strategies we've discussed.