

Abstract

In the past few years, the dietary patterns of children and adolescents in the United States have faced growing scrutiny because of their potential effects on health outcomes. A specific area of concern revolves around the intake of elevated levels of sodium, which has been correlated with various blood-related issues in children. While sodium is an essential electrolyte crucial for bodily functions, its excessive consumption, often driven by the intake of processed foods, has been linked to adverse health consequences.

Background

This research poster highlights the intricate correlation between parents' hectic schedules and the heightened sodium intake observed in children in the United States, attributed to their regular consumption of processed foods. By scrutinizing prevailing dietary patterns, exploring the physiological implications of elevated sodium levels, and investigating potential long-term consequences, this study aims to unveil a systematic approach. This approach, rooted in Human-Centered Design and strategic thinking, provides valuable insights into the pressing need for comprehensive strategies to address the escalating health concern within busy families.

A plate filled with fruits, vegetables, quality protein, and other whole foods allows for colorful, versatile, and healthful meals. While fast food is convenient and tasty, it often comes with drawbacks such as high calorie, fat, and sodium content, which can have adverse health effects when consumed in excessive amounts.

Goals

Develop a system that can facilitate the accessibility of healthy and farm fresh farm produce for busy parents to help them control the intake of processed food that are high in sodium and to improve family wellbeing

Who is involved

- Barkyard Farms is an organic local farm that specializes in the production and distribution of fresh tomatoes all year round
- Parents living in metropolitan cities who run very busy schedules
- Families with more than one child that prioritize healthy farm produce

Key words:

human-centered design, design system, strategic design, food equity, family, child healthcare, packaging, user research, farming, packaging, HCD, UX design

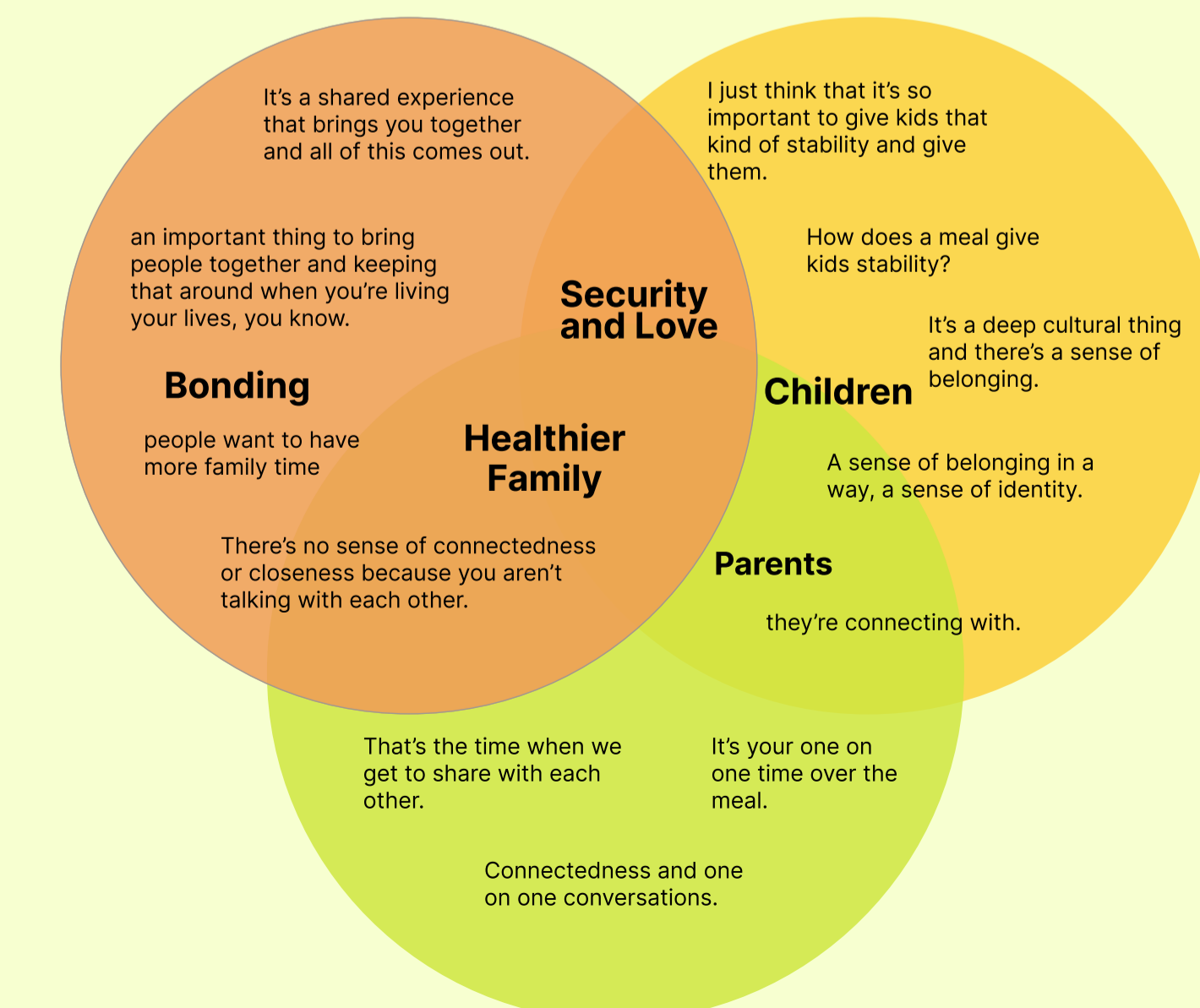
Methodology

Research & Analysis

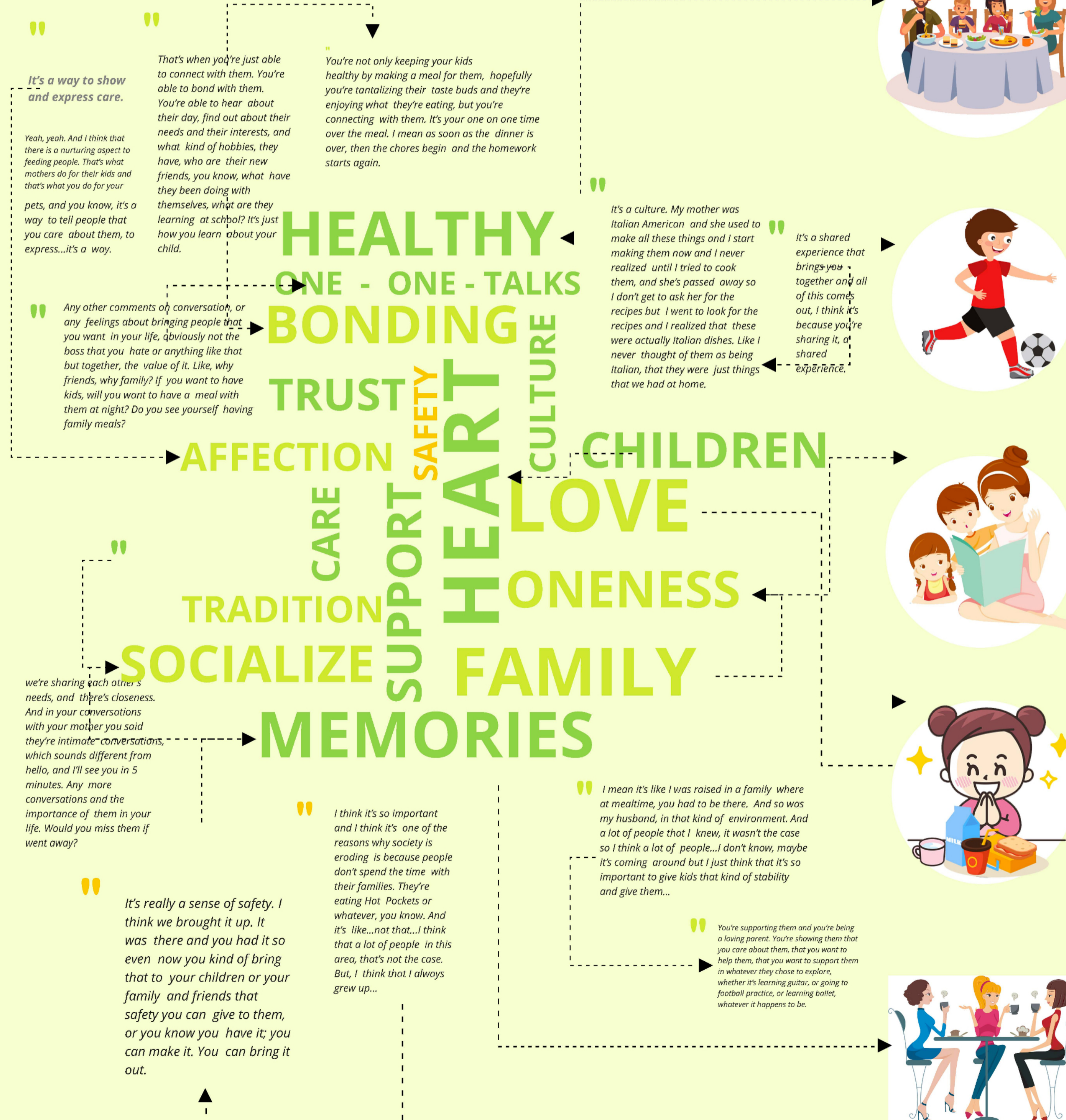
Food Adventure- Transcript

M: All right, common themes I heard: Adventure, exploration, creativity, conversation, sharing, and more. So, let's start with exploration...well, which word shall we start? Friends, family, food. Just what is it all about?
 R: Well, I was thinking what she said with the **memories** that brings people together, **people** who aren't even there because I was thinking about how we would have a **brunch** every Sunday and invite **everybody**, you know, all the **friends and family** and whoever comes, and we'd just have **orange juice**, and **waffles**, and the whole thing.
 M: What do you **remember** about it; tell us about it. 1
 R: It also reminds me about growing up, and that was the thing that we always did on my grandpa's farm. We'd have a big breakfast and it would be like that's when all my mom's family would be there and I never thought...I never associated it with that. I never knew why I really like to have these **Sunday brunches** but I think that's why.
 M: Well, what is it you're **connecting** it to? 1
 R: I'm connecting it to **people** who aren't even here anymore, to food.
 M: To food and it's like you had to remember it in your past.
 R: Yeah, 1
 M: And tell
 R: Let me t
 those **Belgia**
 M: Yeah, y
 R: And my
 of like...
 M: Well, tel
 R: **it's got n
 it's flav.**
 M: Do you have memories of meals as children? Tell me about them; let's start there. What do you remember?
 R: Oh my goodness. I don't eat meat anymore but I used to eat meat, and I used to go with my mom to the store and back then it was...you know, they didn't have huge supermarkets but they had small neighborhood stores where I lived. So, we used to go there and they had a deli, and I got to chase different sausages and stuff like that to make sure that she bought the right ones because that was very important. That was good. And I miss that sometimes even though I don't really miss meat.
 M: **You miss that experience?**
 R: Yeah, yeah. And just my mom's food because she made really good...I could never cook like her.
 M: Well, tell us about a meal at your mom's house. What was it like there? What did you guys do?
 R: She made really good pasta dishes. She would just make it up...the expression is you make it from your hip, just you don't have a recipe or anything, like you just do it. And she always had the right ingredients at home. She was always able to make something out of nothing kind of thing. And I'm never able to do that. I always stress out like I don't have parsley or I don't have that, but she did that. And Christmas, Christmas is a big thing and being over here, it's frustrating because we don't have the same foods over here. Like here we eat turkey, I mean most people eat turkey, but in Sweden, **meatballs are the big thing**. I make **meatballs** but they're not really the same as my mom's. And yeah, so the traditions and on Easter, the same thing, with particular kinds of food like omeletes are really good with mushrooms.
 M: So, tradition?
 R: I think tradition is...
 M: Tradition is coming out as a big thing.
 R: I think with childhood and memories.
 M: So, memories and tradition. And I'm picking up this idea of so and so's waffles, and so and so's, how your mom made the meatballs. So, passing on other recipes or receiving.
 R: (Inaudible)

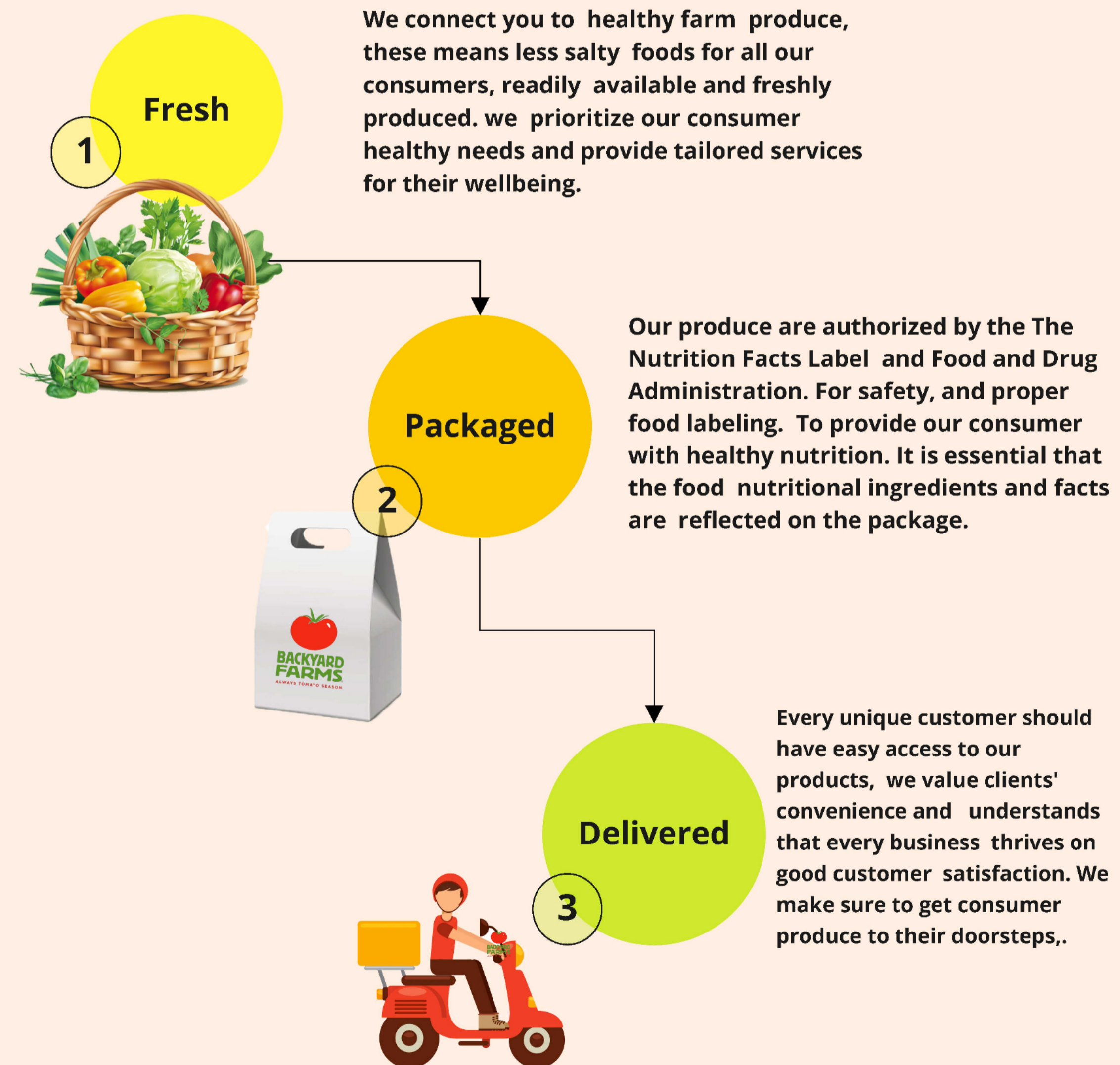
Clustering & Mapping



User Needs



The System Design process



Conclusion

In summary, achieving an effective and practical access to farm produce necessitates a comprehensive approach, encompassing the careful consideration of functional requirements and inclusive accessibility considerations. The amalgamation of these elements is imperative for the success of well-designed and efficient systems.

Future Directions:

Subsequent research endeavors will delve into comprehending the specific needs and preferences of the current target audience. Each phase of the construction process will center on optimizing the device's efficiency and usability. I intend to conduct multiple contextual inquiry sessions with key stakeholders to gain insights into their perspectives, gathering pertinent information to formulate strategies that will inform the development of an effective system design. Additionally, the focus will extend to prototype ideation, prioritizing simplicity for seamless access and usage.

This was presented in the Design for strategic communication design class of over 15 members at the IIT Institute of Design in Fall 2021

References

- American Heart Association | Advocacy Department -Reducing-Sodium-in-the-US-Diet-Fact-Sheet.pdf
- Mozaffarian D, Fahimi S, Singh GM, et al. G - Global Sodium Consumption and Death from Cardiovascular Causes
- Jackson SL, Zhang Z, Wiltz JL, et al. - Hypertension Among Youths — United States, 2001–2016