

JULY 17, 2025

FINAL PRESENTATION

Morehead-Cain Team Bentonville



Heartland
Whole Health
Institute



Meet Our Team



MORRISVILLE, NC
Suhan Asaigoli

Neuroscience,
Neurohumanities,
Cognitive Health &
Experience,
Computer Science



GASTONIA, NC
Amy Okonkwo

Environmental
Health Sciences,
Chemistry



FOREST CITY, NC
Cora Goforth

English &
Comparative
Literature,
Global Studies,
Studio Art



BOONE, NC
Grayson Elliott

Neuroscience,
Health Policy &
Management



ROCKVILLE, MD
Gabriella del Rio

Public Policy,
Psychology,
Spanish for the
Legal Professions

Morehead-Cain Civic Collaboration Summer

**MOREHEAD-CAIN TEAM BENTONVILLE AT
THE HEARTLAND WHOLE HEALTH INSTITUTE**

An explanation of the Morehead-Cain scholarship program, the Civic Collaboration summer enrichment program, and our 8-week summer!



WITH PURPOSE. WITH PROMISE.

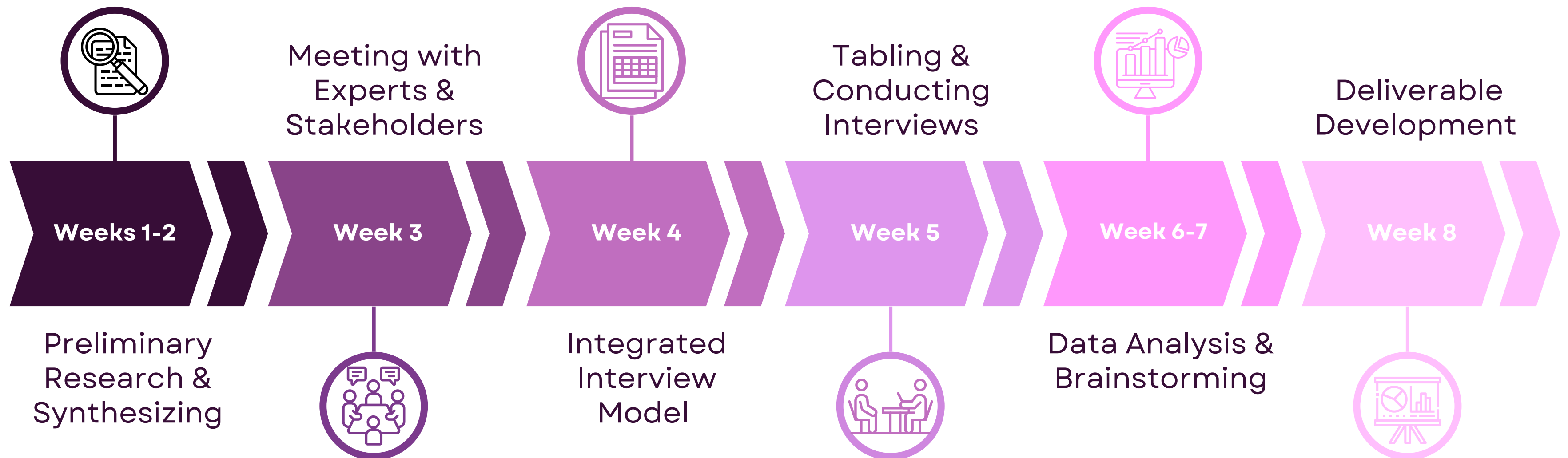


Overview

A ROADMAP OF OUR PRESENTATION AND EXPERIENCE IN NWA THIS SUMMER!

- 1 8-Week Journey
- 2 Our Question
- 3 Literature Review & Key Findings
- 4 Integrated Interview Model
- 5 Interview Findings
- 6 Introducing Proposal Elements
- 7 Proposal Demo
- 8 Intervention Breakdown
- 9 Passing the Baton
- 10 System Timeline

8-Week Journey



Our QUESTION



How can value-based care models be effectively implemented in **rural healthcare** settings to improve **patient outcomes** and **reduce costs**?

Rural Health

Many rural communities in Arkansas have limited and varied access to certain healthcare resources, including specialists and technologies, as displayed by Needs Assessments conducted in many of these areas.

(Rural Health Insights, n.d.)

Patient Outcomes

Conditions, such as life expectancy and overall well-being, have been tied to low patient outcomes and health factors in lower-resource areas. The goal is to provide patient and community resources that encourage patients' wellbeing.

(Mumford et al., n.d.)

Reduced Costs

The fee-for-service healthcare model produces significant barriers for many individuals to actively pursue care. To better patient outcomes, a model that both prioritizes lower costs and *well* care over sick care are important for long-term wellbeing.

Springer, 2021

Smith, 2024

Key Focus Areas

Chronic Disease

Intersectional health disparities in rural communities

Whole Health Practices and Concepts

Health Care Innovation

Payment Models and Health Care Administration

Health Care Accessibility and Connectivity

LITERATURE REVIEW & KEY FINDINGS

We reviewed over 100 sources, including interviews, retrospective studies, commentaries, news articles, needs assessments, and research papers!

Understanding Health Care in Rural Arkansas

- Certain regions of the state (the Delta region and the Coastal Plain region) and, broadly speaking, rural areas in the state display higher levels of food insecurity, poverty, education, and health literacy, all of which have been seen to be connected to the poorer health outcomes.
- Relative to other states, Arkansas has ranked near the bottom of national healthcare rankings, currently ranked as the 48th state in the most recent metrics.

“... the consistent bottom level positioning is a clear indicator that Arkansas still has work to do to fulfill its vision of optimal health for all Arkansans to achieve maximum personal, economic, and social impact.”

(Mumford et al., n.d.)

“In FY2018, 71 percent of the adult population in Arkansas was categorized as overweight or obese. Eighty-five percent of adults in rural counties, compared to 62 percent in urban counties, were overweight or obese.”

(Cartwright, n.d.)

The Chronic Disease Problem

A pressing dilemma...

60% of adults in the United States suffer from a chronic illness
Noncommunicable diseases account for 70% of global mortality

(CREATING a LIFESTYLE MEDICINE CENTER : From Concept to Clinical., 2020)

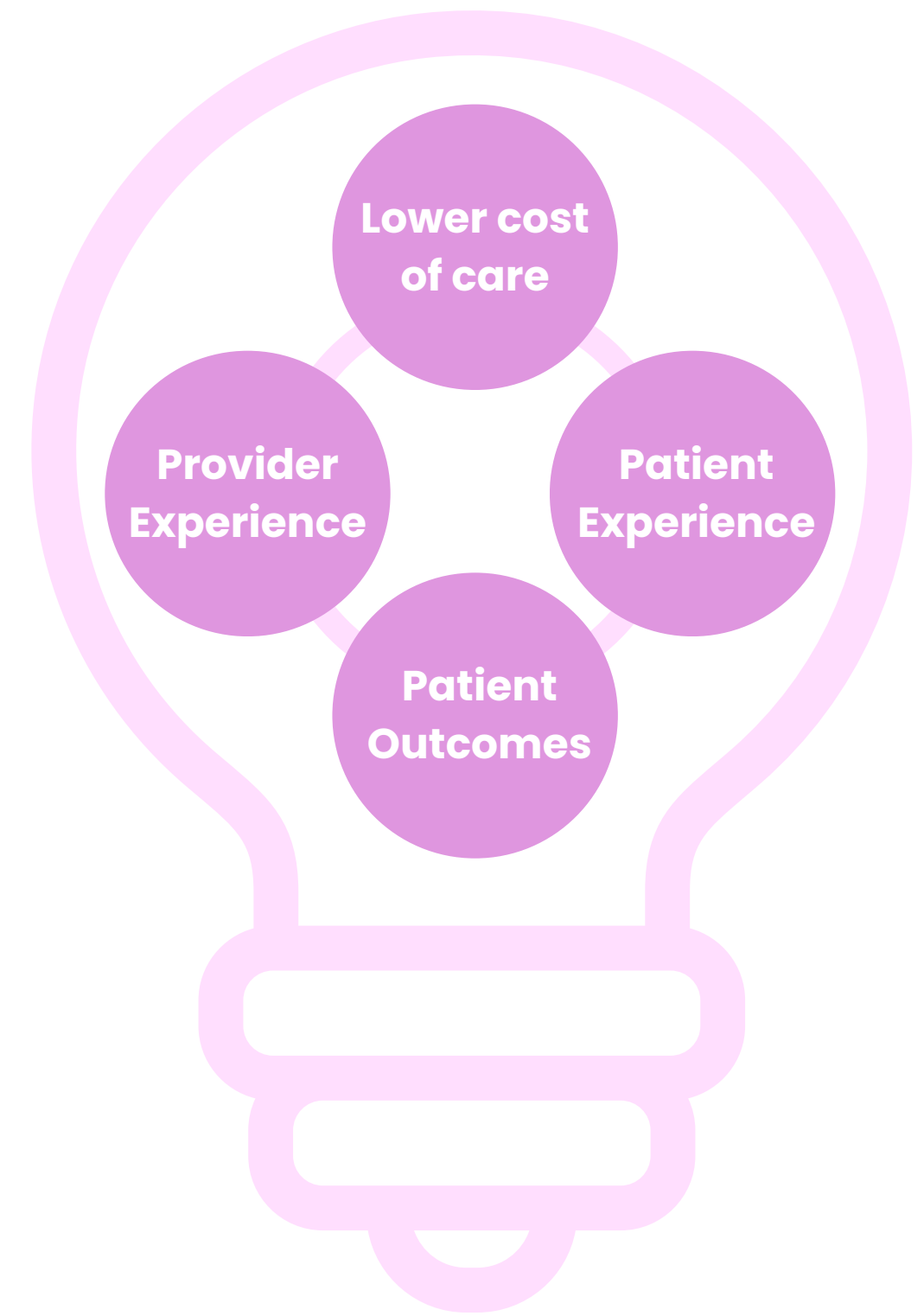
With incomplete solutions...

SDOH contributes heavily to life expectancy, prevalence of chronic conditions

Low-value care may cause up to 101 billion in waste cost to healthcare system (Shrank et al., 2019)

Advancing health equity and chronic condition care outcomes would save an estimated 2.7 trillion dollars in medical costs.

(CREATING a LIFESTYLE MEDICINE CENTER : From Concept to Clinical., 2020)



(Institute of Medicine, 2001)

Lifestyle Medicine & Whole Health

In an analysis of 127 patients, it was found by physicians who have well-defined and positive communication with their patients display 19% higher adherence to treatment.

-Eustice, 2024



Whole health goal-setting and coaching reduced prescribed opioid doses for chronic disease patients by almost 13%
(National Library of Medicine)

Decreases cost, improves healthcare outcomes, sustains behavior

Integrated approaches involve patients, families, and communities in shared decision-making processes

Helps prevent non-communicable diseases, diagnosis, reversal, does not incentivize reversal of health

Lifestyle medicine lacks adequate reimbursement under a fee-for-service model

Lifestyle medicine reduces burnout and increases the time a practitioner can spend with an individual patient

Team-Based Models & Value-Based Care

Diverse care management teams and location linkages

Shared responsibilities distribute costs and resources

Comprehensive care model is the most beneficial for complex patients

Can be initiated with minimal staffing and resources



The implementation of a team-based model as an extension of a value-based care system would lead to better care for rural patients, increase patient outcomes, and reduce provider burnout by building a team of support around them.

Learning From Existing Case Studies

Project Heal

Objective: early cancer and NCD detection - healing through awareness and learning

- Community health advisors (CHA) bridged ethnic, linguistic, socioeconomic barriers
- CHA model was cost effective, knew about resource navigation for medically underserved populations

(1) <https://doi.org/10.1186/s13012-017-0566-z>
(2) <https://doi.org/10.1186/1748-5908-9-66>
(3) <https://doi.org/10.1186/s13012-017-0576-x>

Tepeyac Project

Objective: Church-based breast cancer screening and awareness campaign

- Mammogram rates for the printed intervention remained the **same** from baseline to follow up
- “Promotora” CHWs helped to understand cultural underlying factors, mitigate barrier like fear, embarrassment, a sense of fatalism.

(1) <https://pmc.ncbi.nlm.nih.gov/articles/PMC2099296/>

Pillars For Integrated Interview Model





OPEN-ENDED QUESTIONS



INTERACTIVE ELEMENTS



FIXED CHOICE QUESTIONS

INTEGRATED INTERVIEW MODEL

A novel framework to gather data and insights from the community, and understand perspectives in rural healthcare.

Integrated Interviews in The Community

46
Interviews

5 providers

90+ People

4 tabling
days

Our insights were derived from our integrated interview model focused on understanding health care values, wellbeing priorities, and whole health needs from constituents across NWA:

- Samaritan Community Center
- Pea Ridge Community Clinic
- West Fork Community Clinic
- Elkins Community Clinic
- First Friday 4th of July Tabling



Participant Demographics

Q: How often do you receive primary care?

- A: 74% monthly to yearly

Q: Where do you receive primary care?

- A: 41% Emergency Room

Q: Thinking about your finances today, what statement best describes your situation?

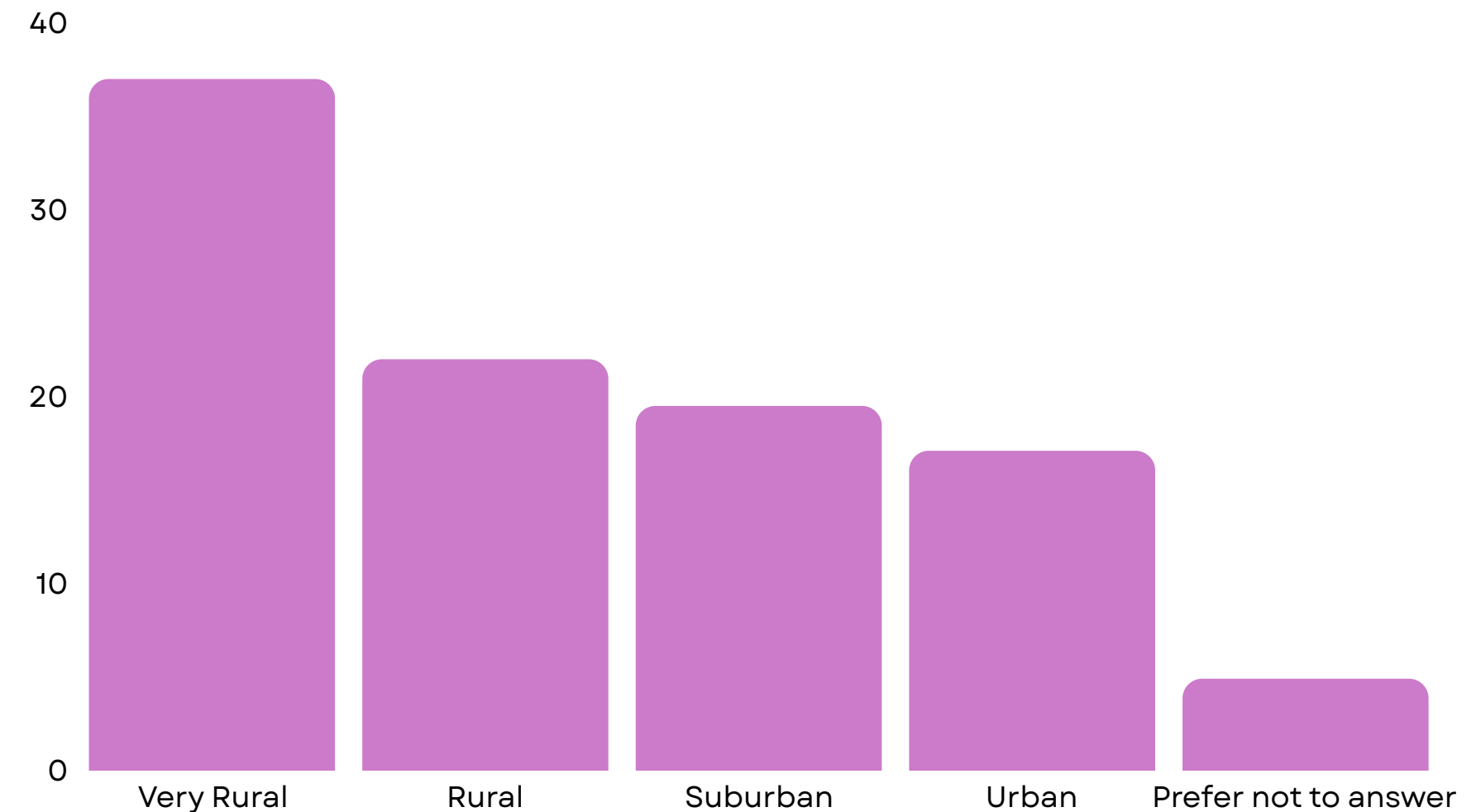
- A: 56% mid-to-low SES

Q: What is the primary language spoken in your household?

- A: 75% English; 15% Spanish; 5% Marshallese

Q: What is the highest level of education you have completed?

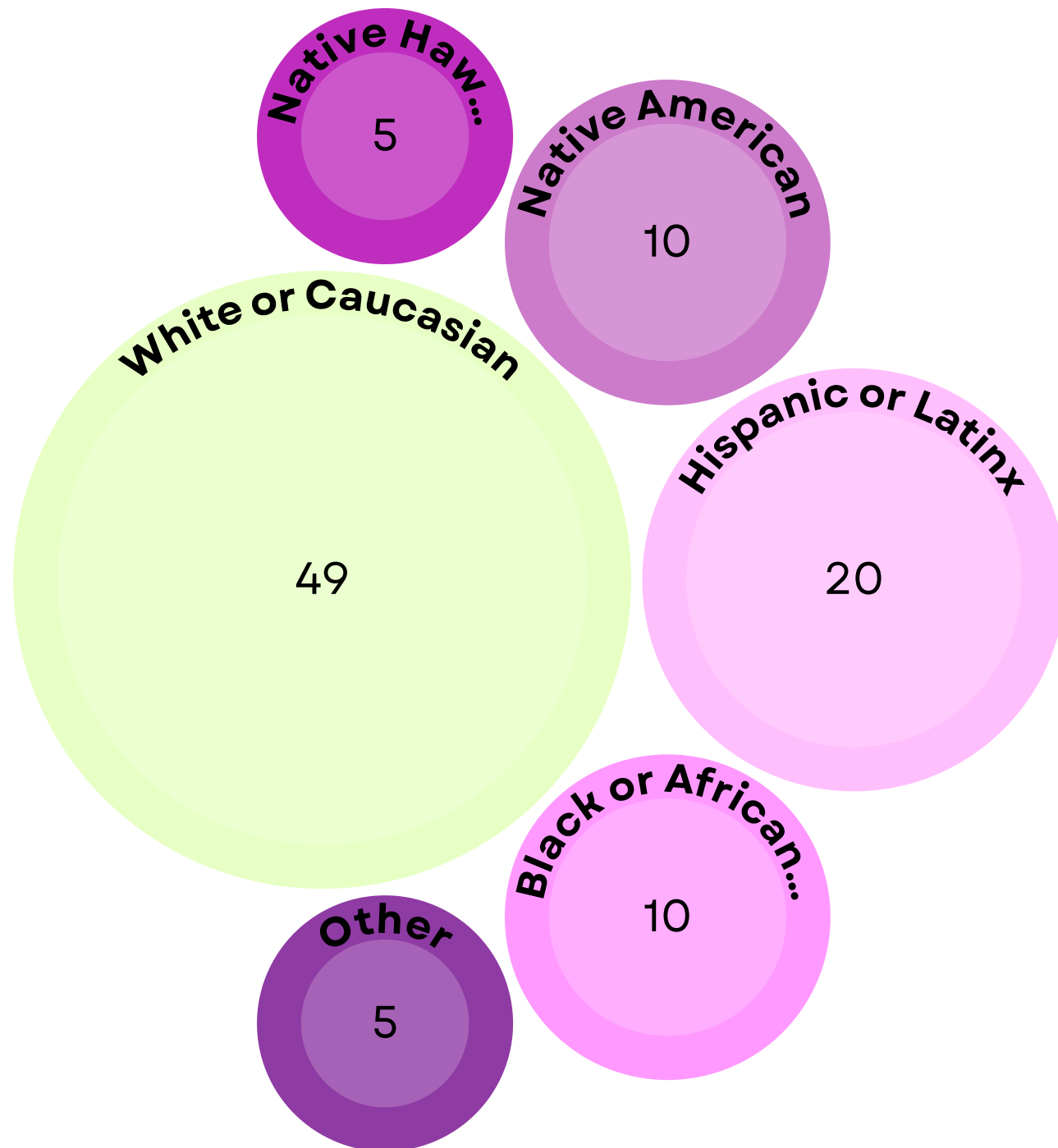
- A: 43.6% High school or GED, 23.1% Some college, vocational, or technical education



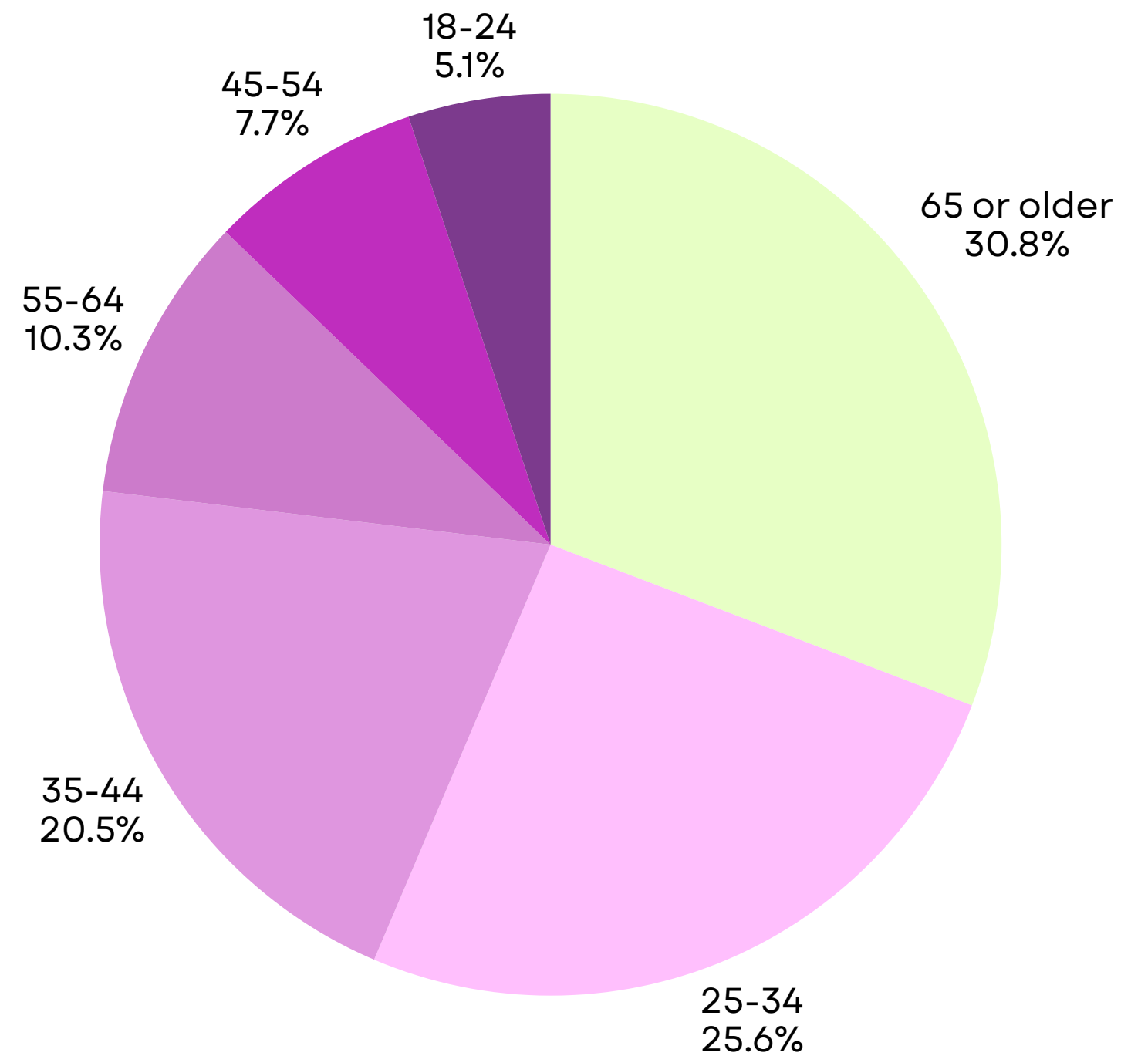
Respondent Residency Distribution

Participant Demographics

Race/Ethnicity Distribution




Age Distribution



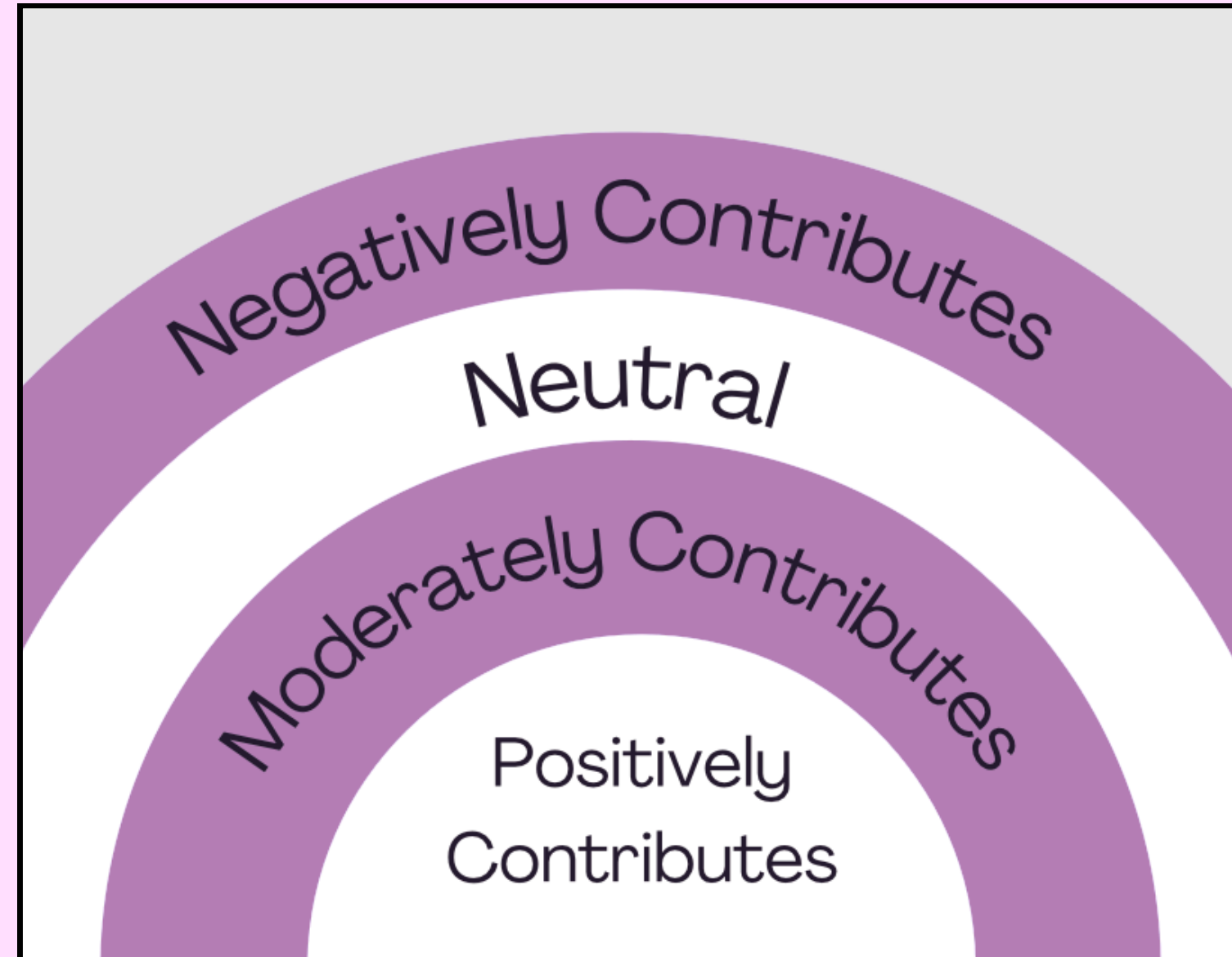
INTERACTIVE ELEMENTS

Which of the following make up your **top three** priorities in healthcare?

Privacy	Location	Affordability
Cultural Sensitivity	Compassion	Availability
Safety	Speed of the Appointment	Trust and Communication


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HEALTH CARE PRIORITIES BINGO



SPATIAL MAPPING TARGET

MY WELLBEING
RECIPE



1	2
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3	4
<input type="text"/>	<input type="text"/>

WELLBEING RECIPE

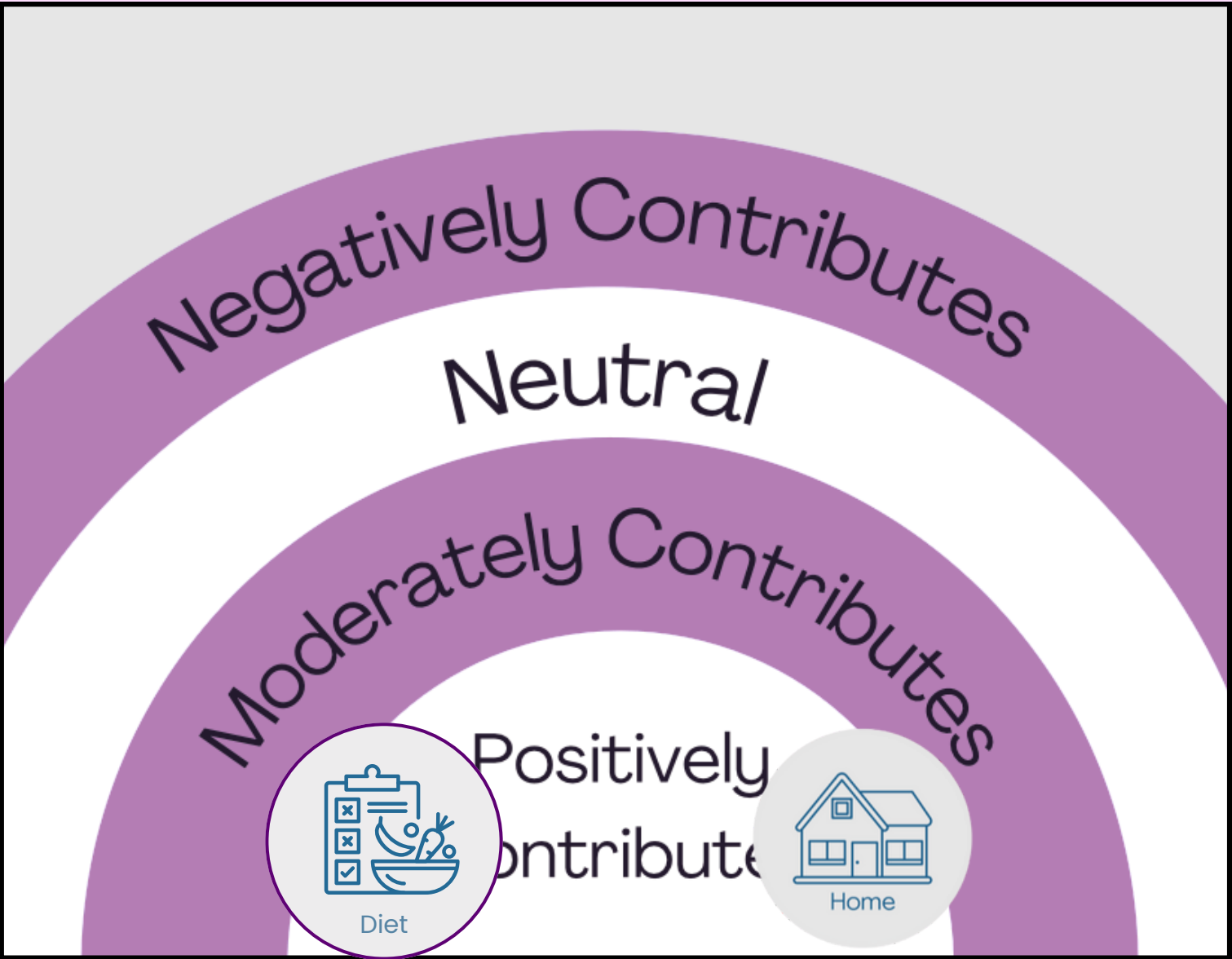
INTERACTIVE ELEMENTS RESULTS

Which of the following make up your **top three** priorities in healthcare?


Privacy	Location T3	Affordability T3
Cultural Sensitivity	Compassion	Availability 1
Safety	Speed of the Appointment	Trust and Communication 2





 Heartland Whole Health Institute

HEALTH CARE PRIORITIES BINGO



SPATIAL MAPPING TARGET

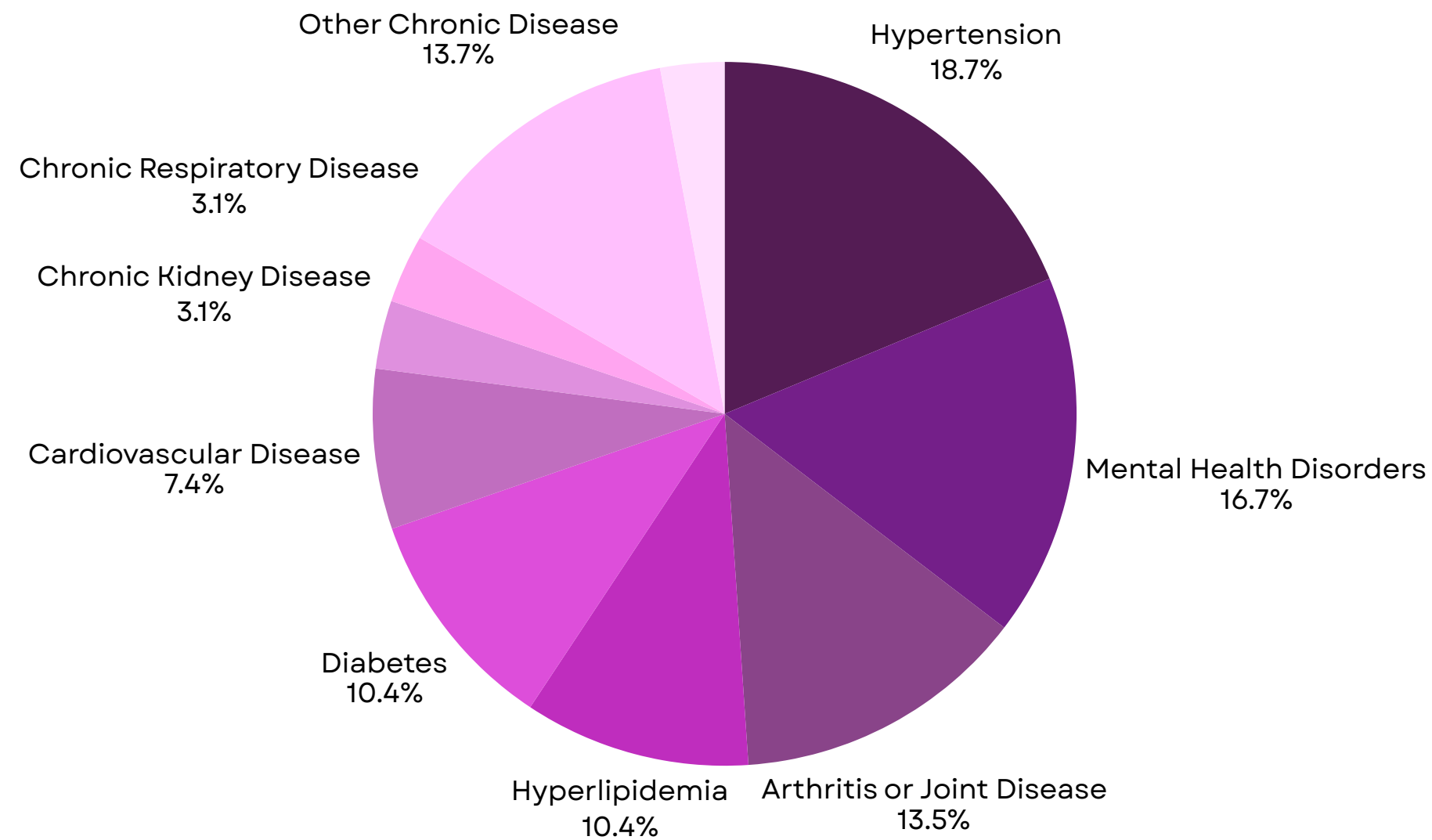
MY WELLBEING **RECIPE** 

1  Spiritual	2  Nutritional
3  Medical	4  Emotional

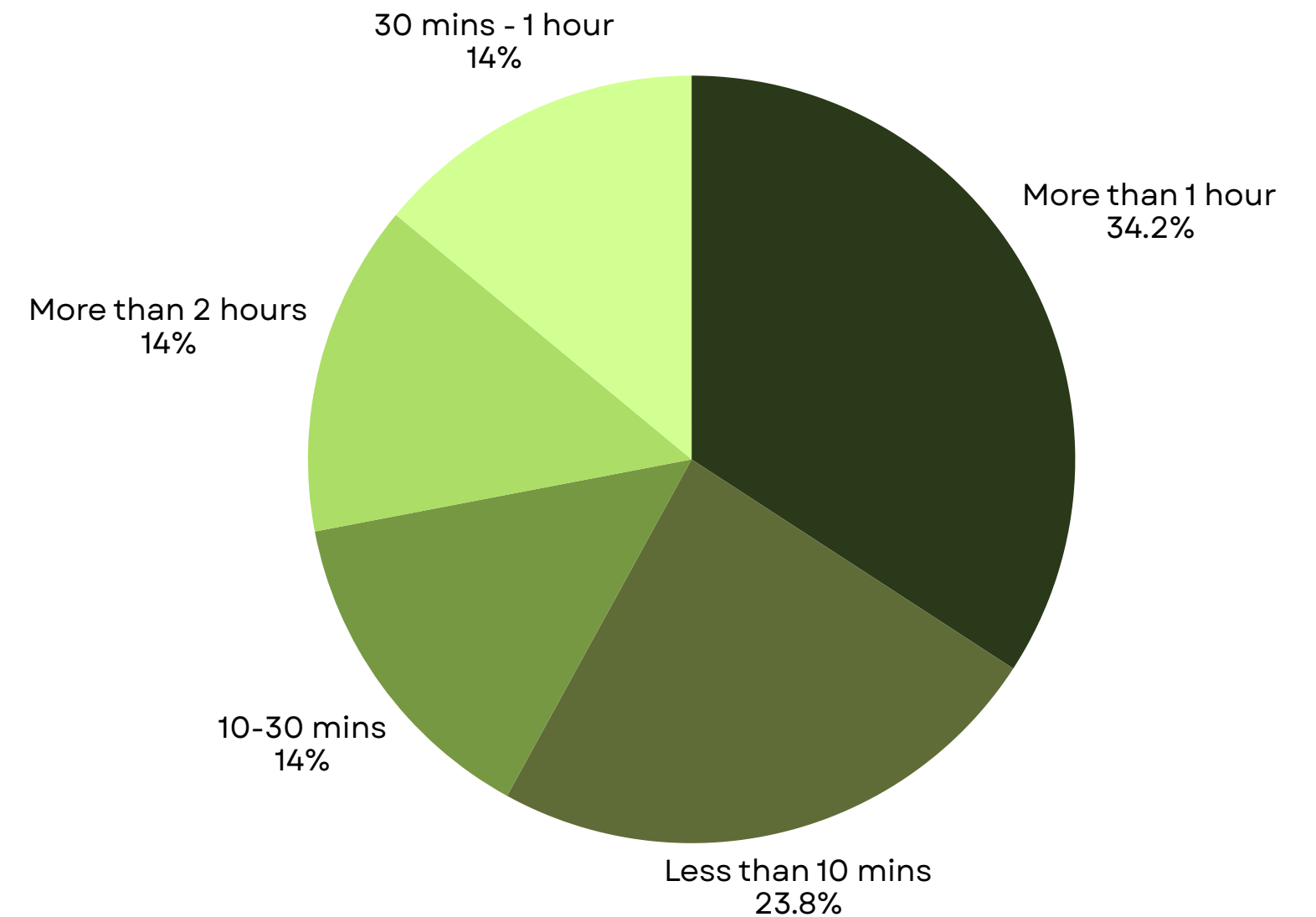
WELLBEING RECIPE

Fixed Choice Findings

Chronic Disease Distribution

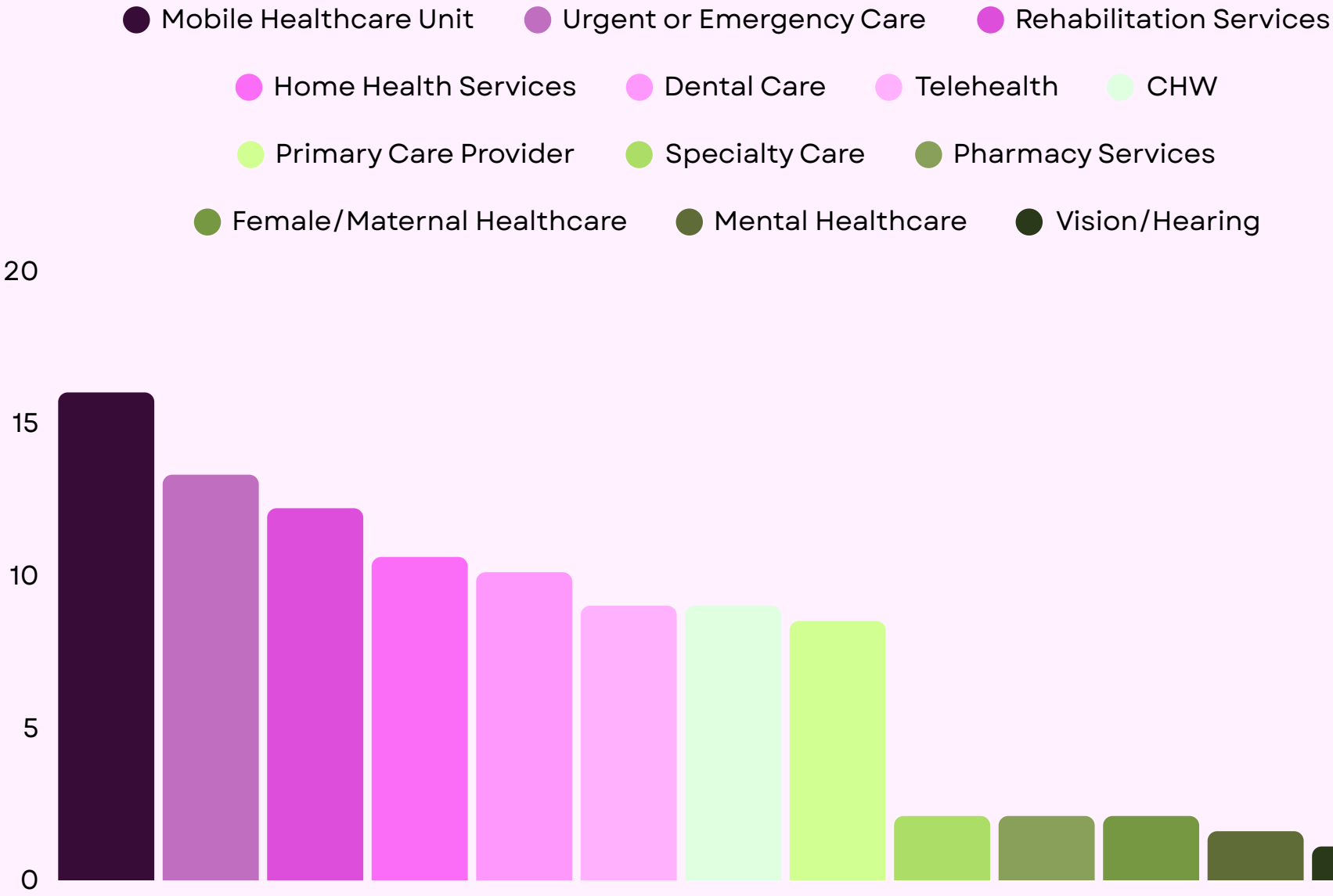


Travel Time to HC Center



Over 90% of Respondents Indicated Chronic Illness

Distribution of Respondent Care Access



68% of participants **agreed** that they found it difficult to understand written instructions from a provider.



64% of participants **disagreed** that information disseminated by their provider is unclear and/or confusing

Qualitative Interview Quotes

RESPONDENT 1

“In some experiences that I’ve heard of, it’s either some people don’t have rides, or funds to pay for medicine. I would say some people are just afraid of the whole setting of it.”

RESPONDENT 2

“When I was nine years old my mother had a ruptured colon and the doctor told me that she would die on the table during the night. Ever since then, I have never felt really heard and loved by a physician. Specifically, when I was on Medicare due to disability I could tell that doctors treated me differently.”

RESPONDENT 3

“First, you need to create a safe space for the community members, but the most important thing is that you can’t just open that gate and then leave. Build something alongside those rural folks that stay there for them and by them.”

RESPONDENT 4

“Whatever intervention you all come up with, it doesn’t matter how innovative or ‘cool’ it is if you haven’t done the educational piece and connected with people, you know? Why should my rural community trust you?”

The image features a solid purple background. In the top right corner, there is a series of white, concentric, wavy lines that curve and flow towards the right edge. In the bottom left corner, there is another series of white, concentric, wavy lines that curve and flow towards the bottom edge. Centered in the middle of the image is the text "Using this information, we propose..." in a white, bold, sans-serif font.

Using this information, we propose...

Wellness
on Wheels



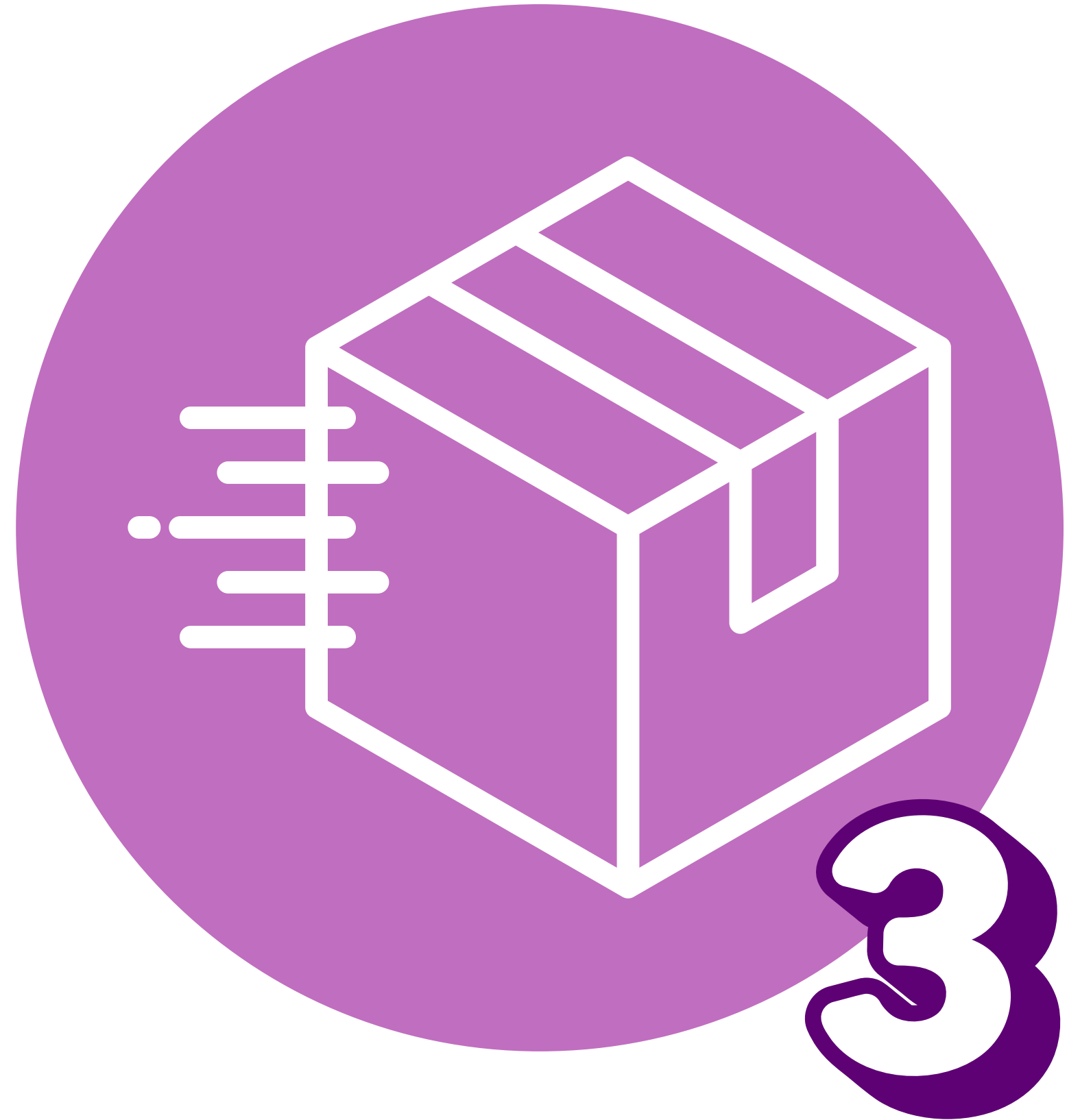
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Vending Machine

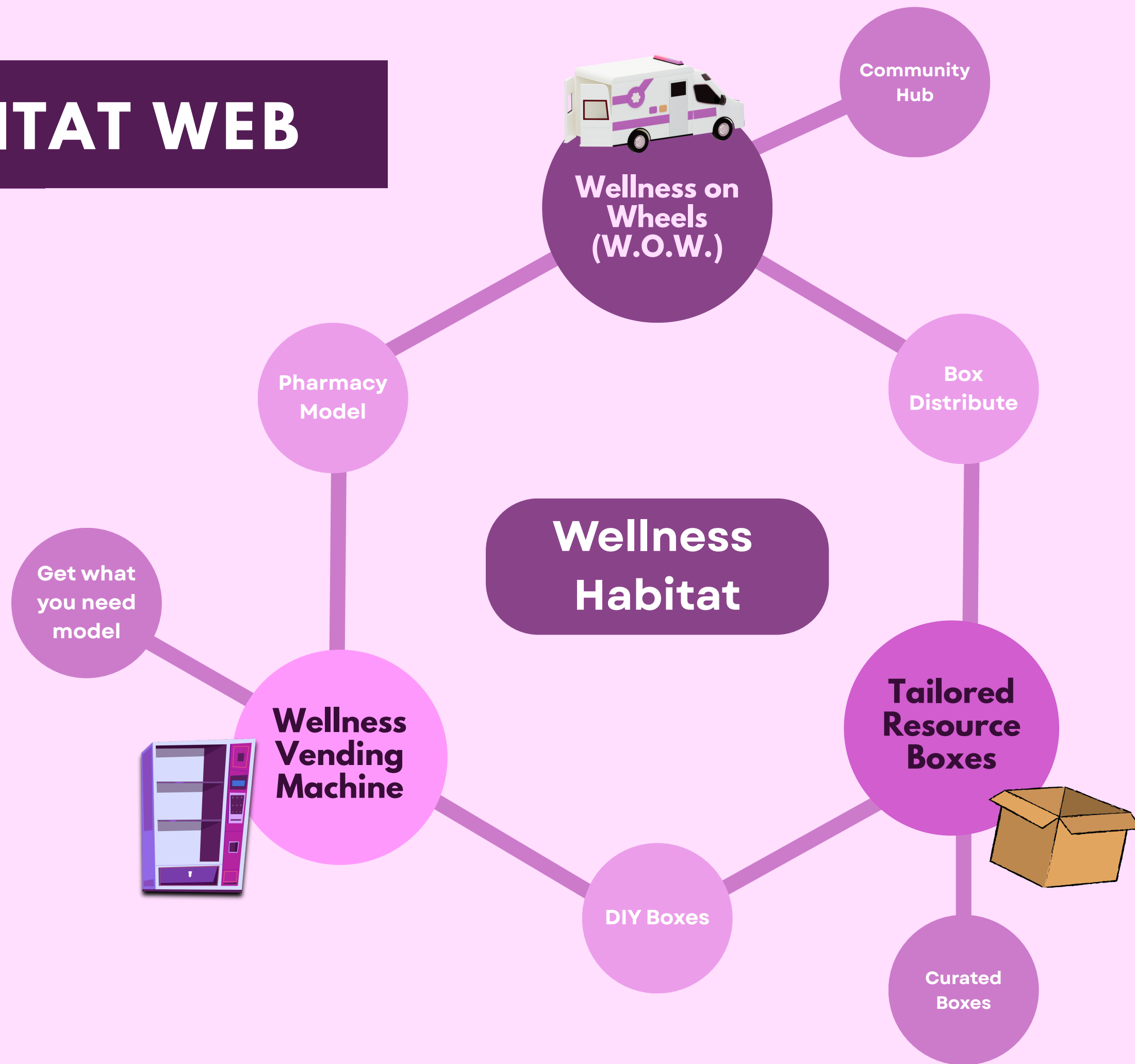


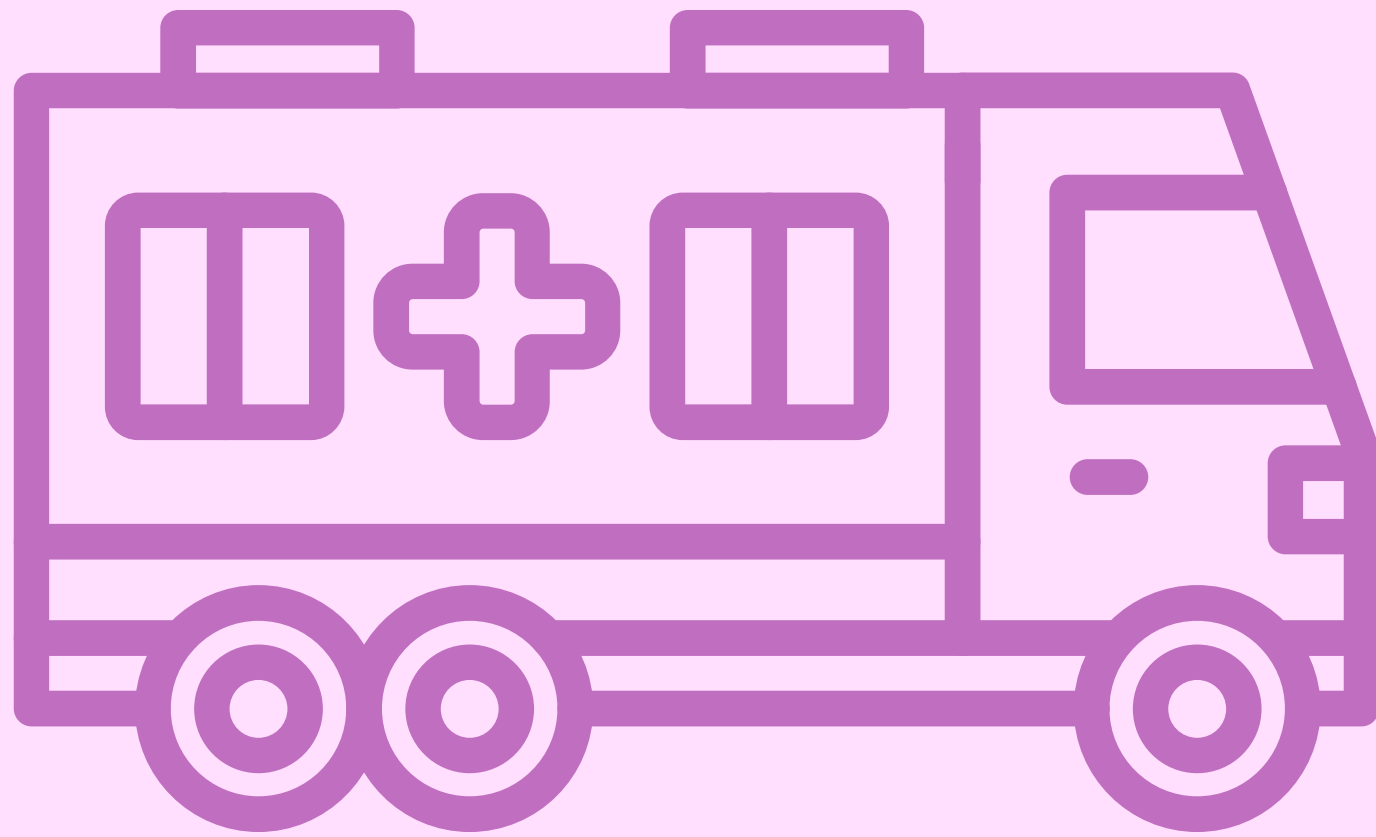
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Wellness
Boxes



HABITAT WEB





**WELLNESS
ON WHEELS**

1

Nutritional Food

2

**Resource Navigation &
Information Access**

3

**Outdoor Cooking
Classroom**

4

Community-Building

5

Box Distribution

6

Volunteer Clinicians

W.O.W. Footprint



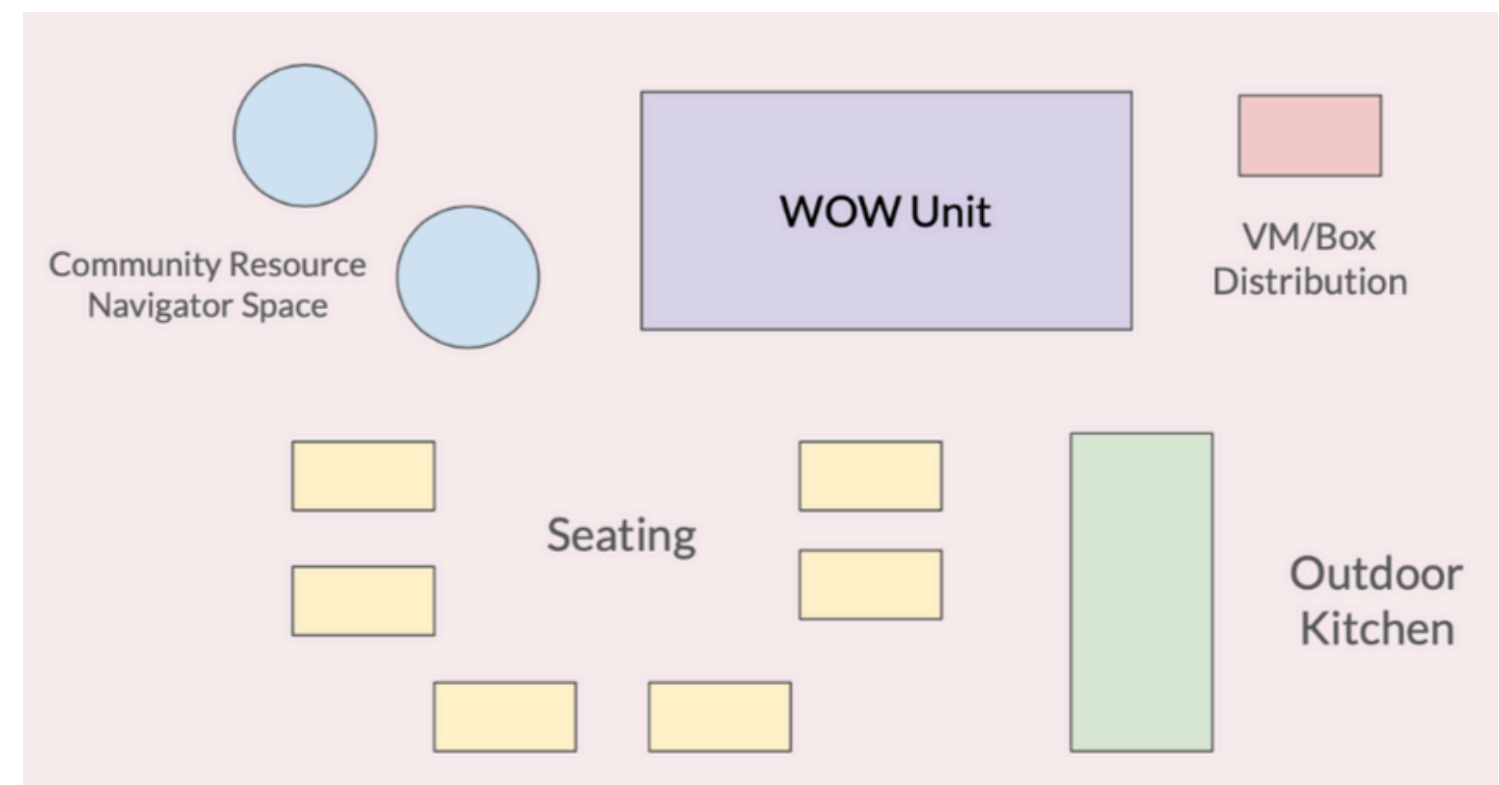
Needs Addressed

- Chronic health care access
- Trust and Communication priority
- Instilling whole health principles
- Value Based Care in Lifestyle Medicine
- Cost Barriers
- Team Based Model
- Rural Health Data Disparity



Community Partnerships

- Community Clinic / FQHC (logistics)
- Samaritan Community Center (location)
- Religious organizations (location)
- Other Community Centers (location)
- Art Bridges Mobile Unit



Integrated Workforce Requirements



Community Health Worker

- Delivers one-on-one coaching in BM and LM principle
- Community Resource Navigation
- Collects real-time social-determinants data and feedback

All providers trained in health/BM/LM coaching in accordance with Newtopia Model



Nutritionist, Chef

- Designs and leads interactive nutrition demos and “Food Rx” grounded in LM dietary guidelines.
- Develops culturally appropriate, LM/BM-informed recipes and handouts
- Provides nutritional counseling

Monthly Stipend Cumulative cost: \$1500 for pilot

Economic Sustainability

Financial Streams

- CPT codes billing - Medicaid
 - Food Rx Model
 - Counseling - telehealth billing
 - chronic care management
 - preventative medicine counseling
 - Education training
- Social enterprise sales - pay what you can
- Corporate Sponsorship / CSR Grants
- Research Innovation Grants/Contracts

98960	Education/training for patient self-management (individual, 30 minutes)
98961	Education/training for 2-4 patients, 30 minutes
99401	Preventive medicine counseling (15 min)
99402	Preventive medicine counseling (30 min)
99439	Chronic care management (each add. 20 min)
99490	Chronic care management, 20 min monthly
99421	Online digital E/M, 5-10 min (e.g., telehealth text follow-up)
99422	Online digital E/M, 11-20 min
99457	Remote physiologic monitoring/treatment management

Revenue Stream	Assumptions	Annual Revenue
Medicaid/Medicare Billing	\$70 per pts. - 80 pts. per month, intersectional multiple counseling	\$67,200.00
Food Rx Prescriptions		\$4,800.00
Social-Enterprise Sales	Pay what you can packs - \$3, 20 packs	\$720.00
Sponsorships	one time startup	\$0.00
Grants/Research Contracts	25K annual - disbursed quarterly	\$25,000.00

Total	\$97,720.00
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Equipment and Material Needs

Startup Costs

Product	Unit Prices
Tables	\$180.00
Chairs	\$160.00
Charting Devices	\$800.00
Mobile Stove	\$50.00
Cutting Boards	\$25.00
Cutlery	\$20.00
Kitchen Supplies	\$200.00
Total	\$1,435.00

Ongoing Costs

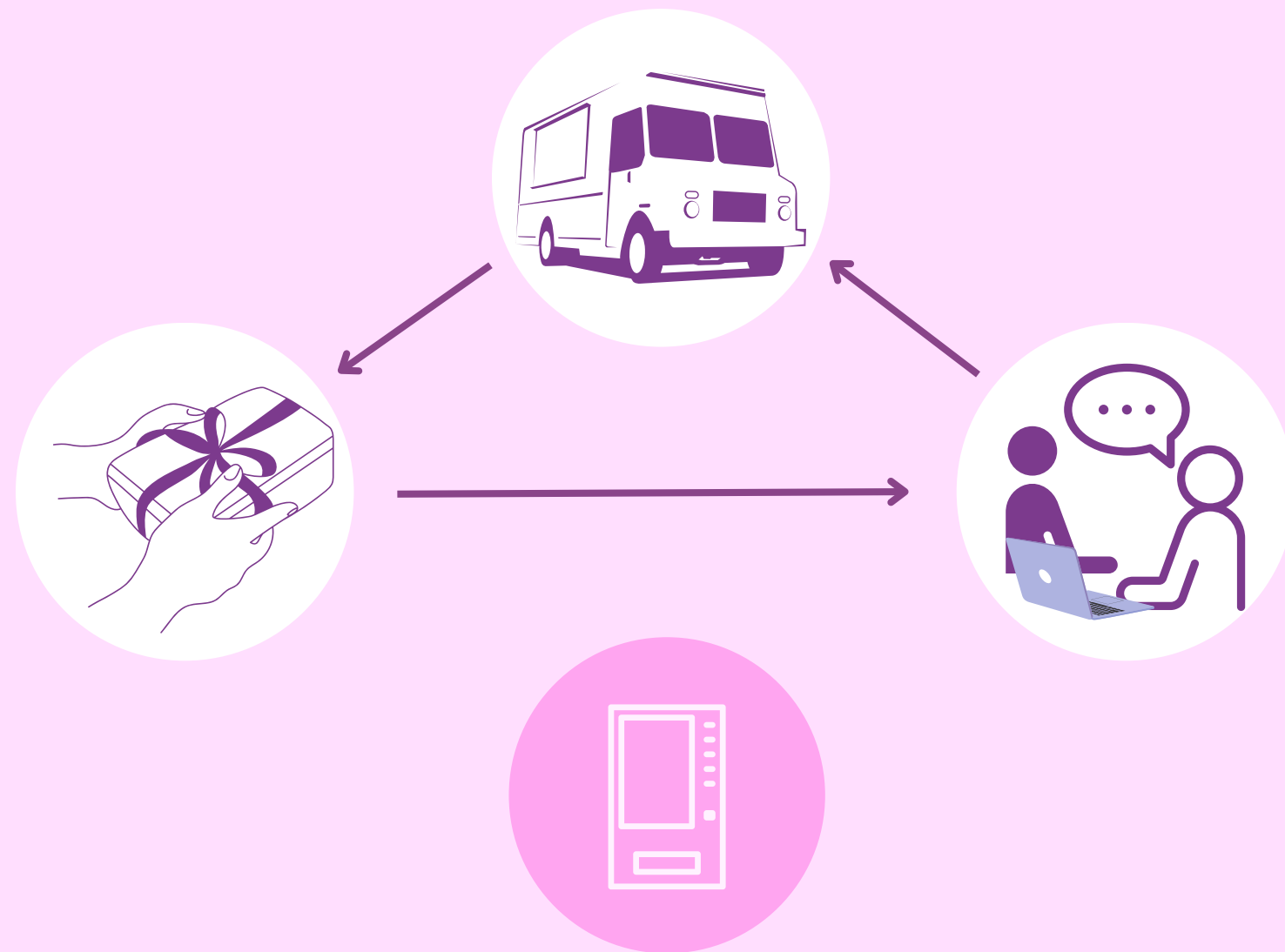
Product	Unit Prices
Mobile Unit	\$50,000.00
Mechanical Safety Inspection	\$200.00
Interior Renovations	\$5,000.00
Branding	\$3,000.00
Power Source	\$2,000.00
Climate Control	\$1,000.00
Canop Tents	\$80.00
Karaoke Set	\$50.00
Total	\$61,330.00

Product	Unit Prices
Fuel	\$0.00
Insurance (Vehicle/Liability)	\$160.00
Wifi Hotspot	\$50.00
Permits and Licenses	\$50.00
Food	\$400.00
Total	\$660.00

Financial Roadmap

Year	Visits/mo	Annual Revenue	Annual OpEx	Net Operating Income	Cumulative NOI	Key Milestone	Primary Risk	Mitigation / Contingency
Y1	50	\$ 83 400	\$ 50 000	\$ 33 400	\$ 33 400	Break-even in Q2	Billing lag: 30-day claims delay	Maintain a 3-month reserve (~\$ 12 500); secure a \$ 25 000 launch grant for runway
Y2	65	\$ 108 420	\$ 52 500	\$ 55 920	\$ 89 320	Hire 2nd CHW	Grant shortfall: delayed award	Target multi-year grants; set fundraising goal \$ 15 000 for Y2
Y3	84	\$ 140 946	\$ 55 125	\$ 85 821	\$ 175 141	Implement a 30-day billing cycle; diversify funding sources	Grant renewal uncertainty; delayed reimbursement	Secure multi-year grants; maintain a 3-month reserve; diversify revenue streams
Y4	109	\$ 183 230	\$ 57 881	\$ 125 349	\$ 300 490			
Y5	142	\$ 238 199	\$ 60 775	\$ 177 424	\$ 477 914			

W.O.W. Growth



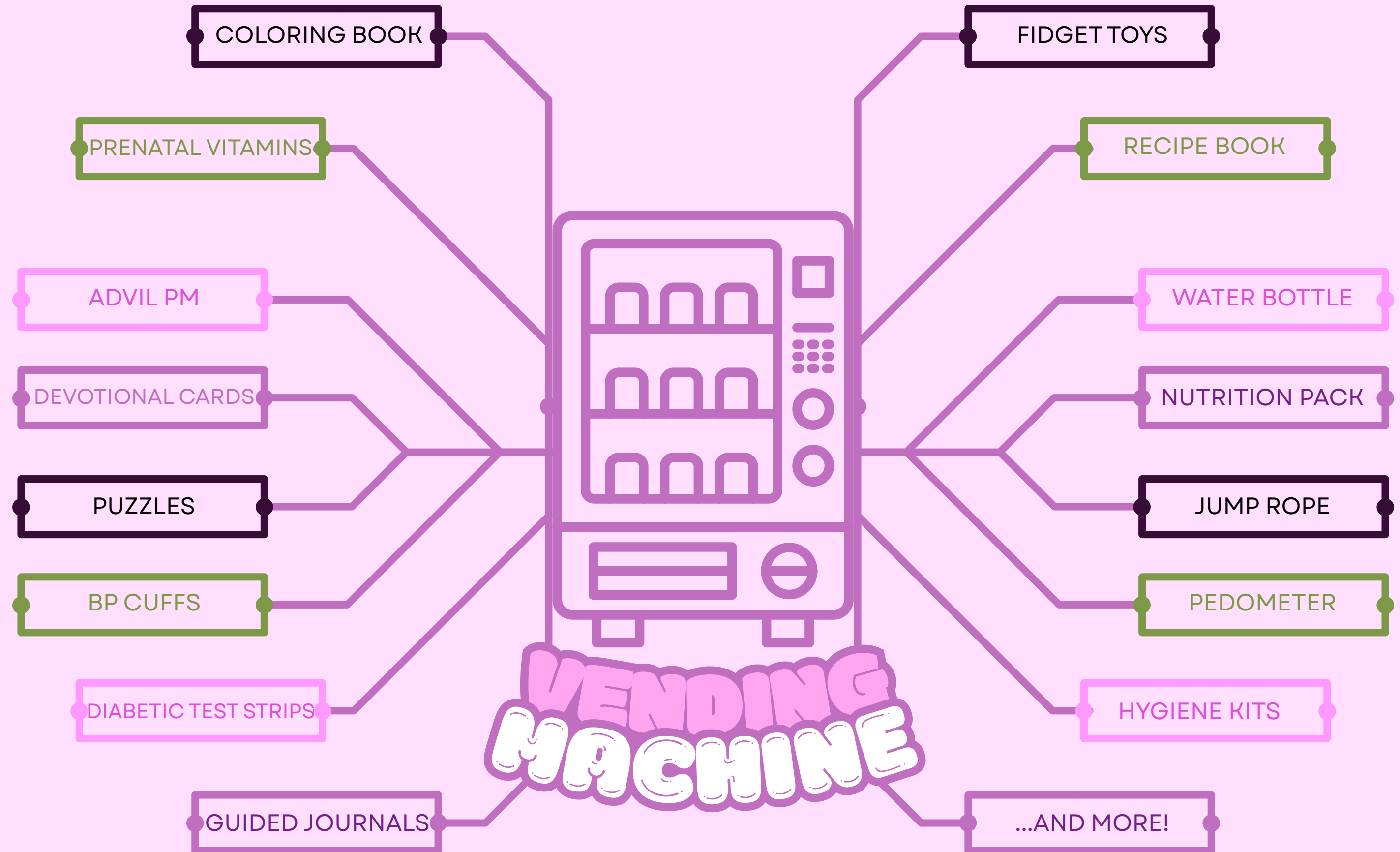
- **Data Impact**

- Expanding integrated team
- Tailoring location-based services
- Calibrating visit frequency
- Provider “Speed-Dating”

- **Expanding research output**

- Multi-year research collaboration with research institutions (i.e UAMS, Arkansas State Health Dept., CDC)

- **Expanding WOW fleet**



Custom Vending Guide

- 4 categories
 - Physical Health
 - Nutrition
 - Mental Health
 - Miscellaneous
- Source of Community-Relevant Information
- The Integration of Art



Vending Machine Footprint



Needs Addressed

- Resource distribution
- Community
- Availability
- Affordability
- Autonomous
- Customization



Community Partnerships

- **Local artists** for vending machine design
- “**Community hubs**” to house vending machine and locate volunteers



Unique Offerings

- Vend any **resource** you need
- **Premade** chronic disease-specific boxes
- **Custom** boxes
- Exchangeable products

Wellness Vending Machine: Economic Breakdown



Workforce Requirements:

- One individual from “community hub” tasked with stocking and maintaining the vending machine
- Volunteer system
- Self-sustaining system



Vending Machine Base Price- \$250
(used), \$4,000 (new)

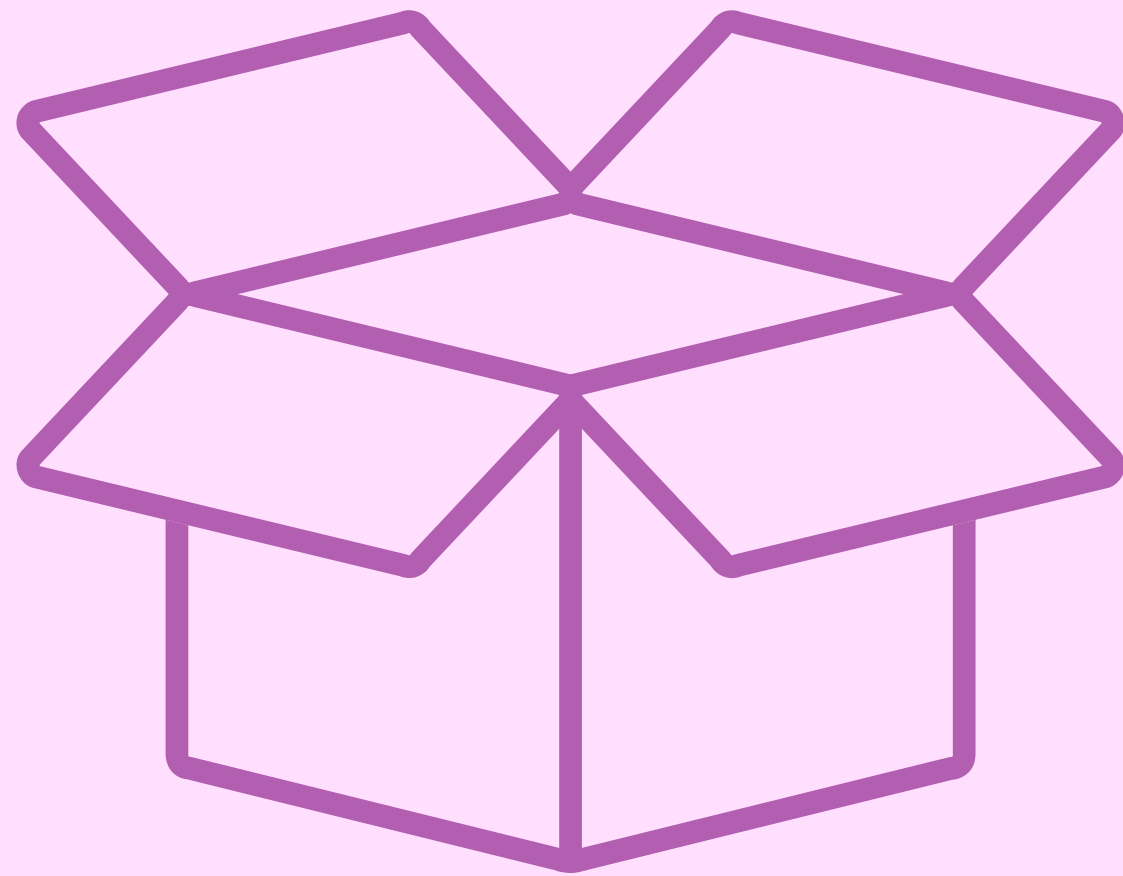


Restocking Process:

- Restocked by volunteer on a weekly basis
- Items supplied by local organizations, such as NWA Food Bank or potential corporate sponsors
- Data system tracking most/least used items

Vending Machine Individual Item Cost Breakdown:

Product	Unit Prices	Cost (1 Vending Machine)	Cost (10 Vending Machines)
Water Bottle	\$0.99	\$4.95	\$49.50
Prenatal Vitamins	\$3.50	\$17.50	\$175.00
Fidget Toy	\$0.28	\$1.40	\$14.00
Diabetic Test Strips	\$1.20	\$6.00	\$60.00
Guided Journal	\$0.99	\$4.95	\$49.50
Coloring Book & Pencils	\$1.20	\$6.00	\$60.00
Advil PM (2 ct)	\$0.48	\$2.40	\$24.00
Non-Perishable Protein Pack	\$0.68	\$3.40	\$34.00
Blood Pressure Cuff	\$8.90	\$44.50	\$445.00
Puzzles	\$0.98	\$4.90	\$49.00
Hygiene Kit	\$0.18	\$0.90	\$9.00
Pedometer	\$0.85	\$4.25	\$42.50
Jump Rope	0.9	4.5	45
Recipe Book	\$1.05	\$5.25	\$52.50
Total VM Cost		\$110.90	\$1,109.00



**WELLNESS
BOXES**

- 1 Hypertension Box** 
- 2 Diabetes Box** 
- 3 Mental Health Box** 
- 4 Self-Curated Box** 

PHYSICAL HEALTH

Jump ropes,
pedometers, hygiene
kits

NUTRITIONAL HEALTH

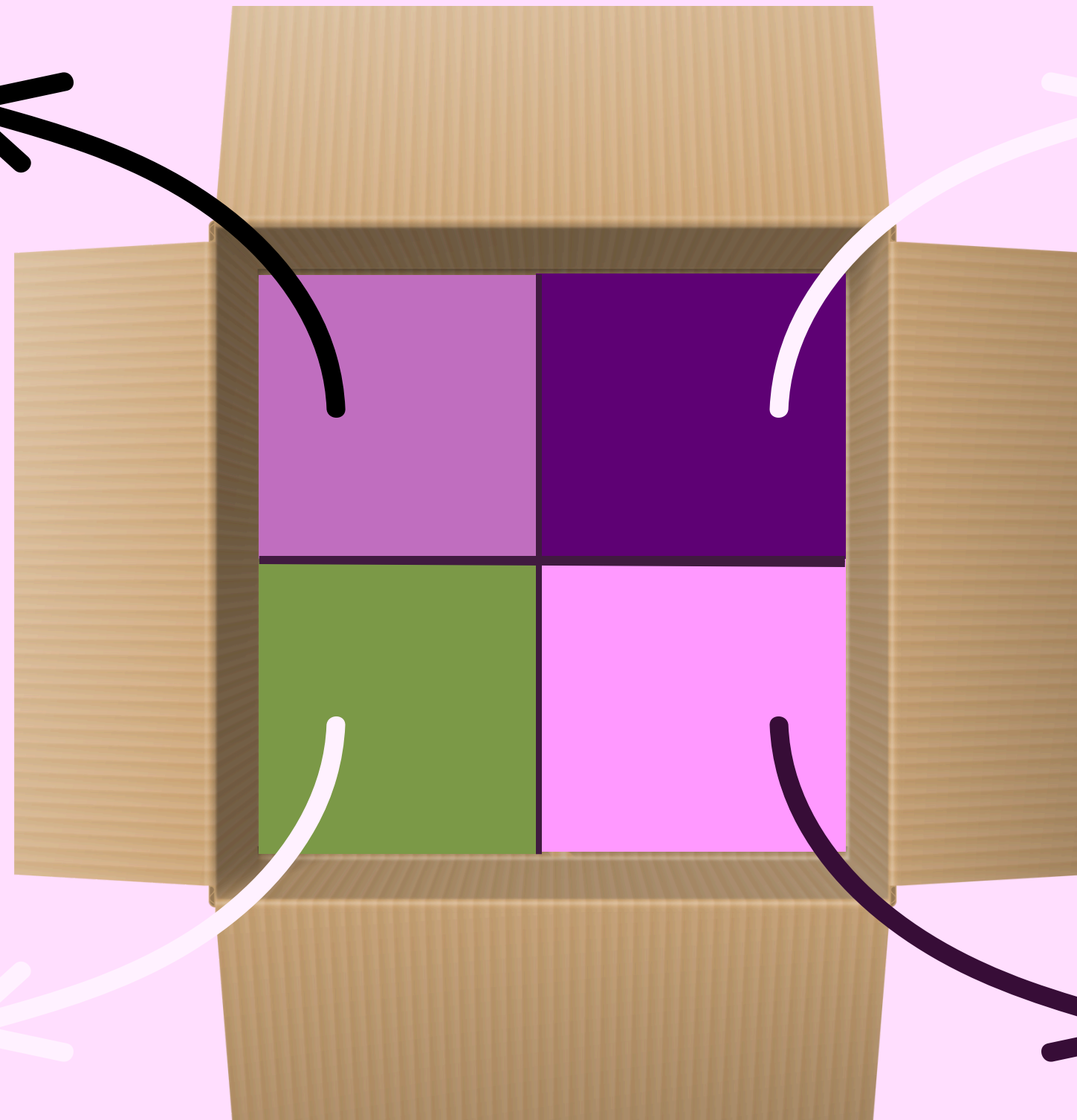
Non-perishable nutrition
packs, water bottles,
recipe books

MENTAL HEALTH

Art kits, guided journals,
fidget materials

MEDICAL HEALTH

Disease-specific, maternal
health, spiritual, sleep, or
intellectual wellness
resources



Wellness Box Footprint



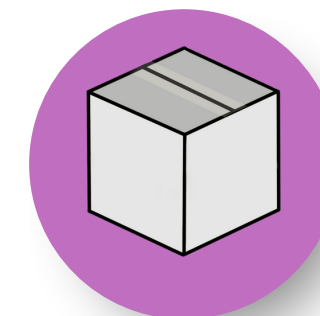
Needs Addressed

- Resource accessibility
- Community Connections
- Availability
- Affordability
- Autonomous
- Customization
- Proximity
- Self-empowering



Community Partnerships

- Community Clinic/FQHC
(Distribution and Connecting Resource)
- Northwest Arkansas Food Bank
(Distribution and Connecting Resource)
- Samaritan Community Center
(Distribution and Connecting Resource)
- Religious organizations
(Distribution)
- Other Community Centers
(Distribution)



Unique Offerings

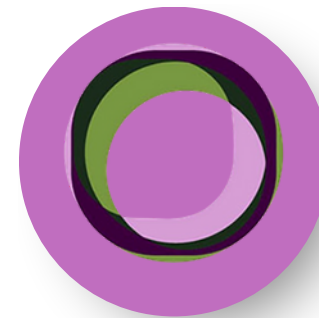
- Provides resources that are tailored through disease-specificity or self-curation
- Enables close proximity to resources within one's home
- Connects individuals with existing community resources

Workforce Requirements



Support of Volunteers

- Volunteers gather on regular basis to build pre-made boxes
- Volunteers assist in distributing boxes to the community
- High school volunteers encouraged to participate



Leadership of HWHI

- HWHI strategically plans volunteer involvement
- HWHI sustains community partnerships
- HWHI provides logistical oversight for box distribution processes



Involving Community Leaders

- Community leaders share boxes with community members
- Community leaders advocate for box use and share information regarding distribution

Material Needs and Sustainability

Ongoing Costs

Box Component (Single Unit)	Price
Box	\$0.67
Medical Device	\$25.00
Stress Ball or Other Mental Health Resource	\$1.00
Pedometer	\$6.00
Stretch Band	\$5.00
Electrolytes	\$3.00
Printed Information	\$0.00
Total	\$40.67

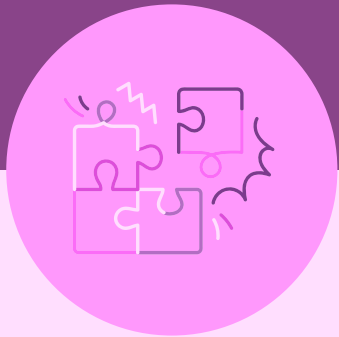
Sustainability

- Support of passionate volunteers
- CPT codes billing
- Corporate Sponsorships and CSR Grants
- Research Innovation Grants and Public Health Contracts

Example Implementation in Rural Community Clinic



BENEFITS OF THE SYSTEM



**Individual Shortcoming
Mitigation**



**Systematic Problems
→ Systematic Solutions**



Expanded Outreach



Better Cost



Better Value



Replicable Expansion

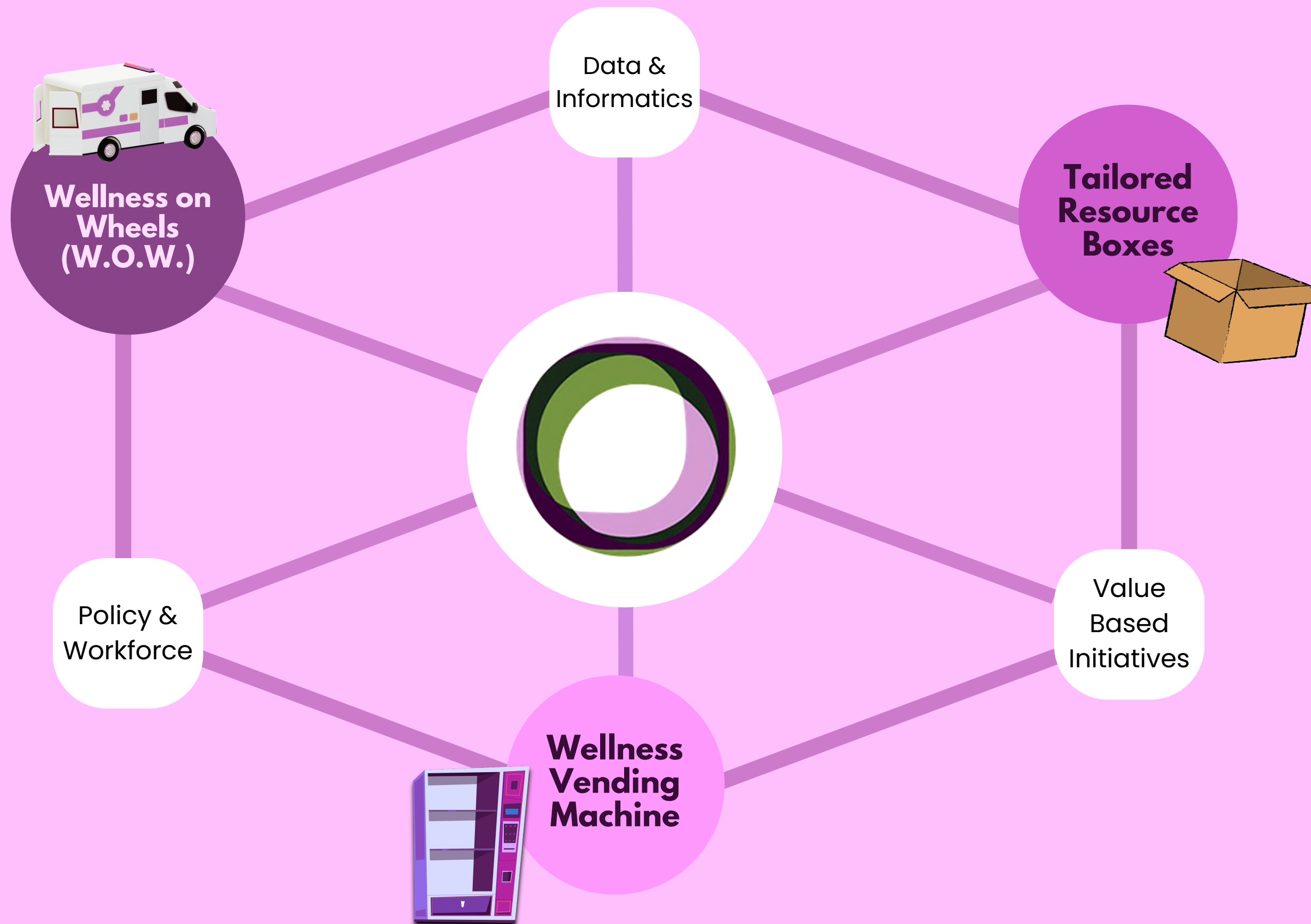


Data Governance



Community Informed

PASSING THE BATON



- **Value-Based Initiatives**
 - Marshallese Food Project
 - Newtopia
- **Data**
 - Telehealth/EMR
 - Survey
 - Data Management, Governance
- **Policy & Workforce**
 - Workforce Expansion
 - State Demo
 - Caregiver Recognition

System Framework

————— Building Relationships and Trust With Community —————→

WELLNESS ON WHEELS

- **Build community** through a vibrant, resource-rich, and empowering whole-health experience
- **Build trust** through the physical presence of community health workers
- **Build a framework for personalization** around community needs through the collection of information and feedback



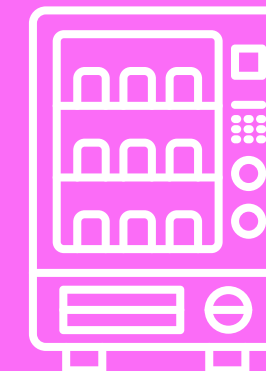
WELLBEIWENG BOXES

- **Empower proximity** by providing resources that individuals can utilize in their home everyday
- **Empower individual autonomy** through the “make your own” box option
- **Empower community hubs** with premade disease-specific boxes that are easy-access and time-efficient

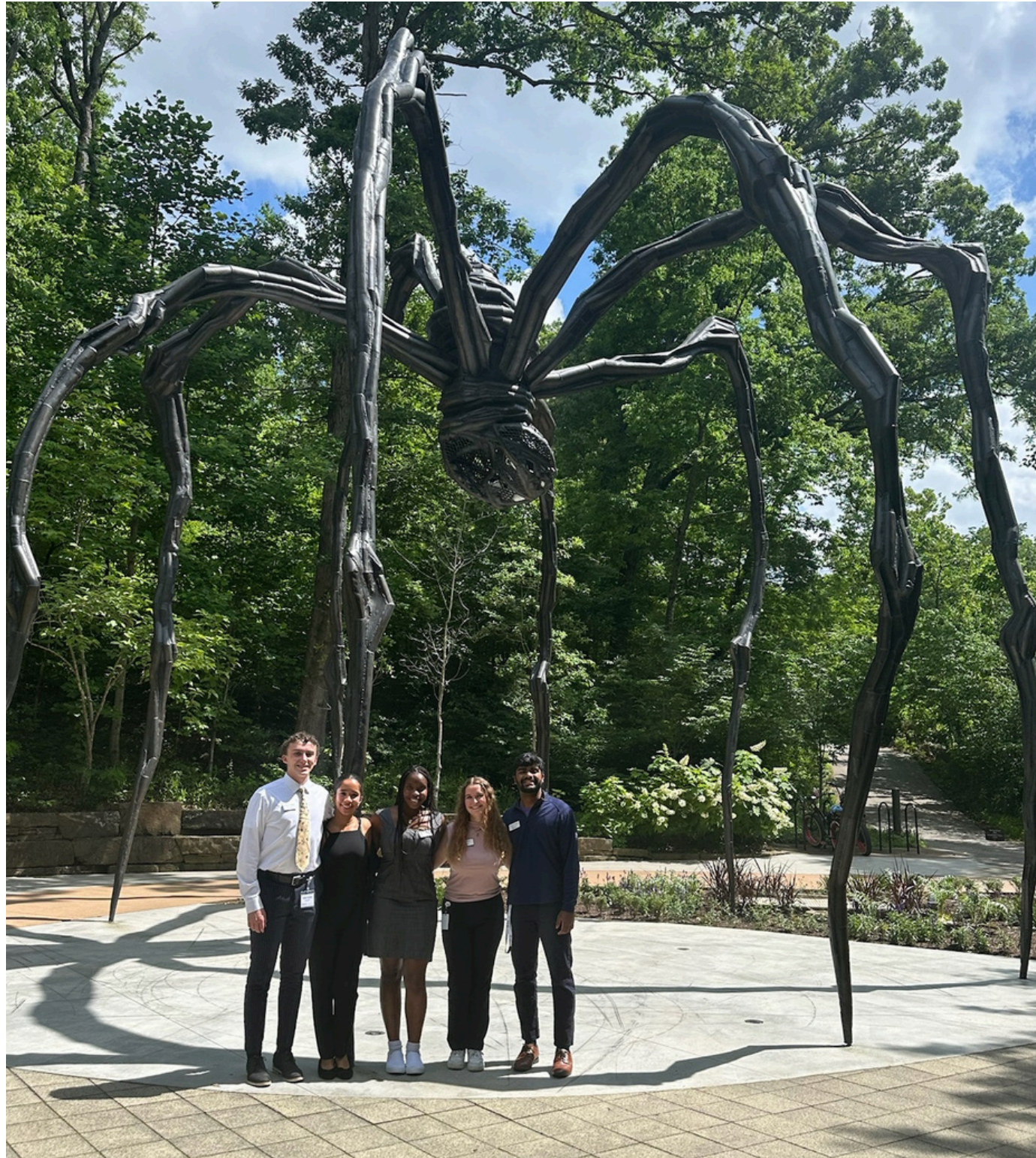


VENDING MACHINE

- **Provide a consistent resource** that is self-sustaining, rooted, and always accessible within the community
- **Provide options** for community members to choose resources based on their individual needs
- **Provide interchanged items** tailored to evolving community needs



————— Building System and Offerings Around Community Needs —————→



THANK YOU!

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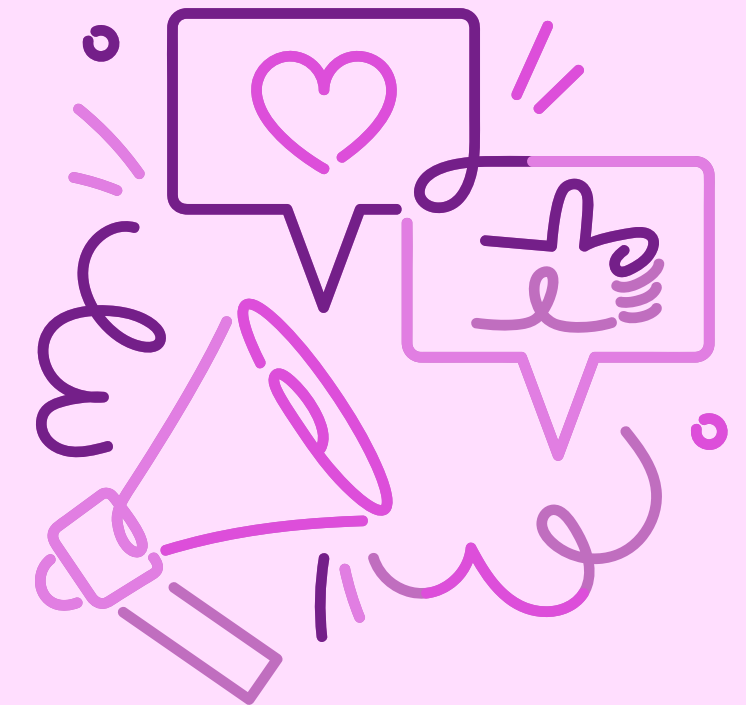
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REFERENCES

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- 4.