

# CareRoute



*Birth Center Finder*

Digital Hackathon 2024

Hunter College Group



9/13/2024

# Hawks Team Members



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Problem Research



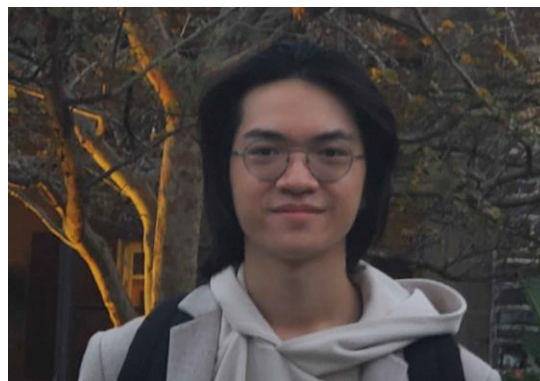
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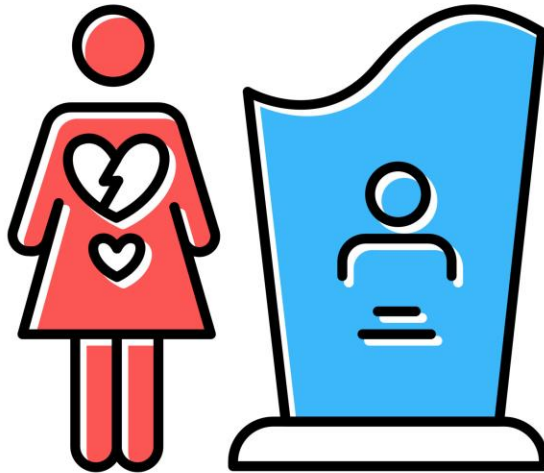


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# Equity in Healthcare



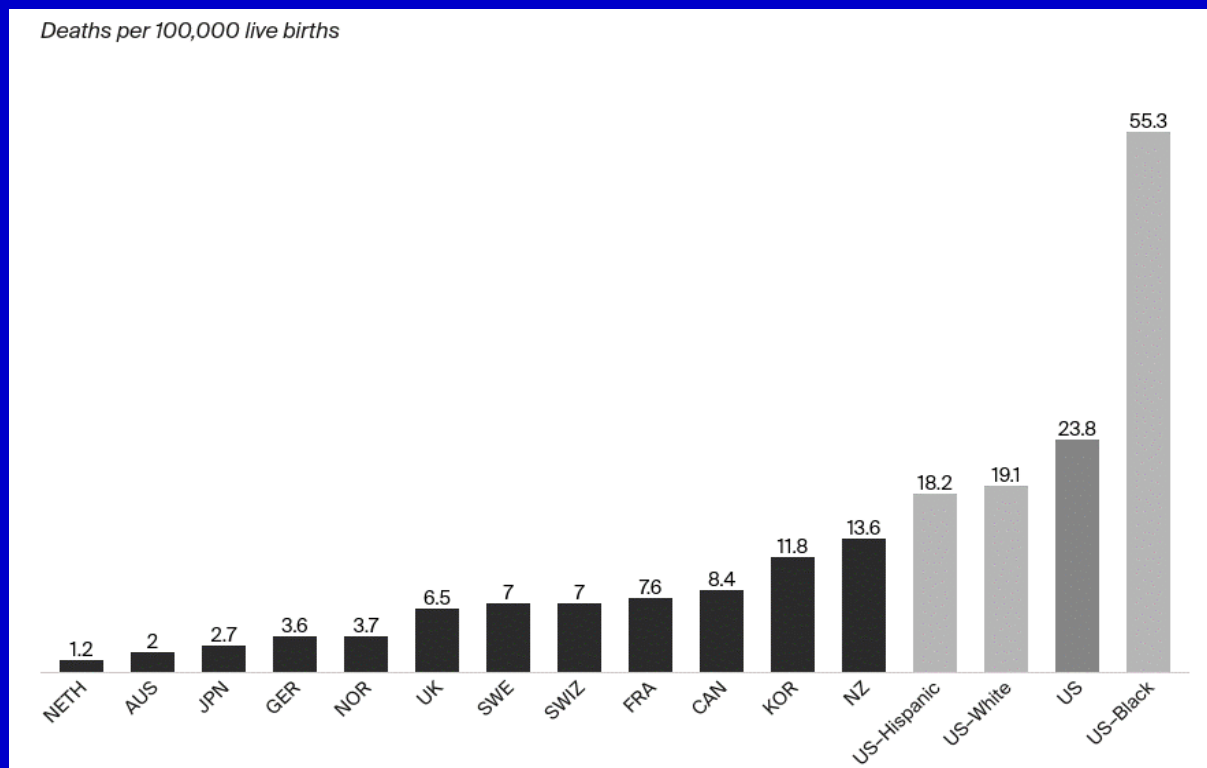
The Hawks found a solution for the following **Problem Statement**:

**Maternal mortality** in underrepresented communities is a known issue across the U.S.

# U.S. maternal death on worrisome trajectory.

More mothers die in the United States than in any other developed country in the world.

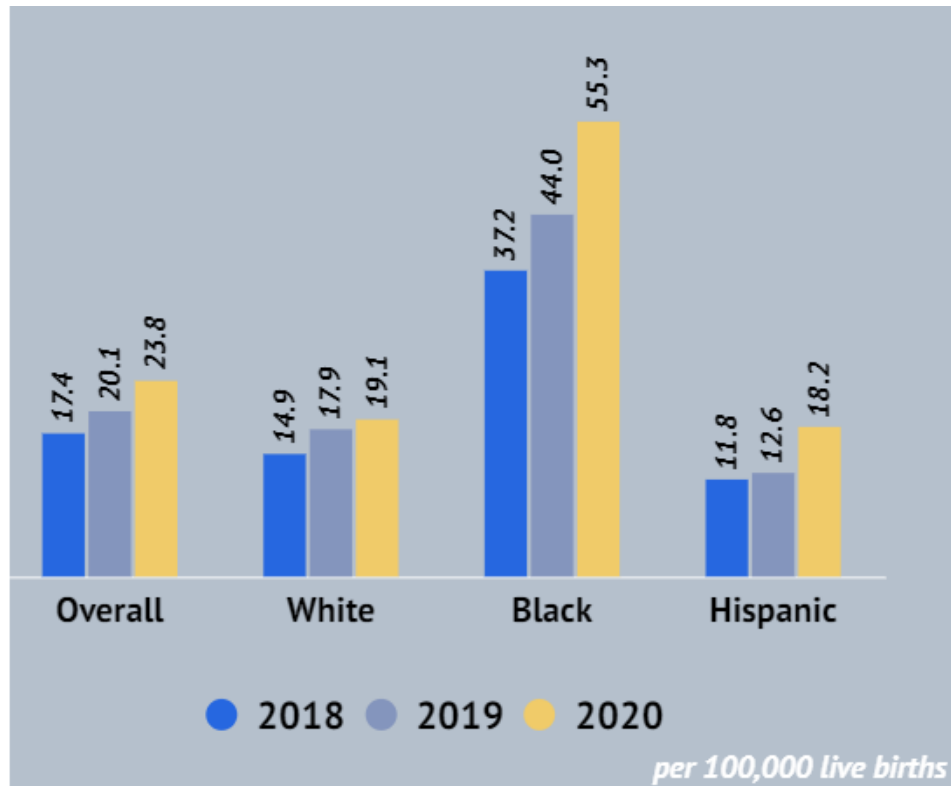
Over the last 20 years maternal mortality rate has more than doubled in the U.S.



# A Growing Issue

The difference in this mortality rate statistics are among historically minoritized and marginalized communities.

Although deaths increased in people of all races and ethnicities, disparities persisted.

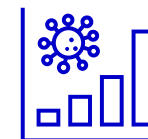


This issue disproportionately affects pregnant individuals who:

Face systematically inequality in healthcare

Experience geographic barriers to healthcare access

# Some Intersecting Factors are:



## Health Care Access

Limited availability of medical facilities or specialists, especially in rural or underserved areas, affects timely and adequate maternal care.

## Social Economic Status

Lower income and education levels often correlate with reduced access to quality healthcare, proper nutrition, and prenatal services, increasing health risks during pregnancy.

## Underlying Comorbidities

Pre-existing conditions such as hypertension, diabetes, and heart disease can exacerbate complications during pregnancy, leading to higher mortality risks.

## Geographic Location

Physical distance from healthcare providers and birth facilities, particularly in rural or remote areas, can delay access to critical maternal care, further elevating mortality risks.

How can we leverage digital solutions to avoid all preventable maternal deaths and improve maternal well being and health equity?

# Simplifying Access to Healthcare

Our solution proposes integrating a **location-based feature** into the existing *Pfizer for All* app, designed to assist pregnant individuals in locating the nearest medically licensed birth facility.

PfizerForAll™

Welcome to  
*PfizerForAll™*

**Insert current location**  
get a list of nearby licensed facilities, ensuring timely access to quality care.

**Web <-> Mobile**  
smooth experience across web and mobile platforms by leveraging WebView technology.

**Up-to-date & Accurated data**  
sourced directly from reputable governmental bodies or accredited hospitals

**Linguistic Accessibility**  
guarantees smooth navigation for users non-English speakers



Get tests and treatments  
COVID-19 & flu



Manage  
migraine



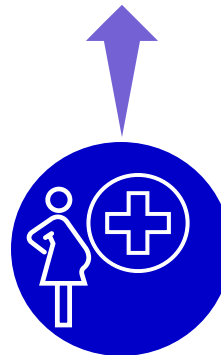
Find  
birthcenters



Schedule  
vaccines



Save on  
Pfizer medications



CareRoute



# Strategy on a Page

1

## Mission and Purpose

One of the biggest hurdles in reducing maternal and neonatal deaths in low-resource settings is the delay in reaching a healthcare facility.

**Distance to facility has been correlated with mortality rates, and associated with increased complications.**

- **Our mission** is to expand maternal healthcare accessibility and promote simplified information for better planning.
- **Our purpose** is to significantly improve maternal health outcomes by bridging the gap between location and essential maternal care services.

2

## Solution & MVP

Deliver an app built on top of Pfizer for all that enables pregnant people to locate the closest medical center to give birth.

- Users can input desired zip code and be informed on the nearest medical centers to them.
- All facility data will be sourced directly from reputable governmental bodies or accredited hospitals, ensuring accuracy and up-to-date information.
- The app would support being a website and a mobile app without needing three codebases.

3

## Target Audience

The app primarily focuses on pregnant individuals from: Underrepresented communities & in hospital deserts geographic locations in need of maternal healthcare access and with restricted resources.

- People of color, American Indigenous/Alaskan Native (AI/AN), Latinx, LGBTQI+.
- Pregnant individuals in hospital deserts areas.

4

## Commercial Viability

Since Pfizer for All is already centered around healthcare awareness, this new feature would seamlessly integrate with its mission of providing awareness and information to U.S. residents, while strengthening the app's core purpose of simplified healthcare access.

- Insurance companies that cover maternal care.
- Healthcare brands that offer birth kits/.
- Non-profit and For-profit, committed in Maternal Healthcare Equity.

# Targeted Audience

Primarily targeting **pregnant** individuals who are:

Black or African American

Indigenous or Alaska Native

Latinx or Hispanic

LGBTQI+

Localized in healthcare deserts

# Secondary Targeted Audience

Healthcare Brands

Non-Profit Org

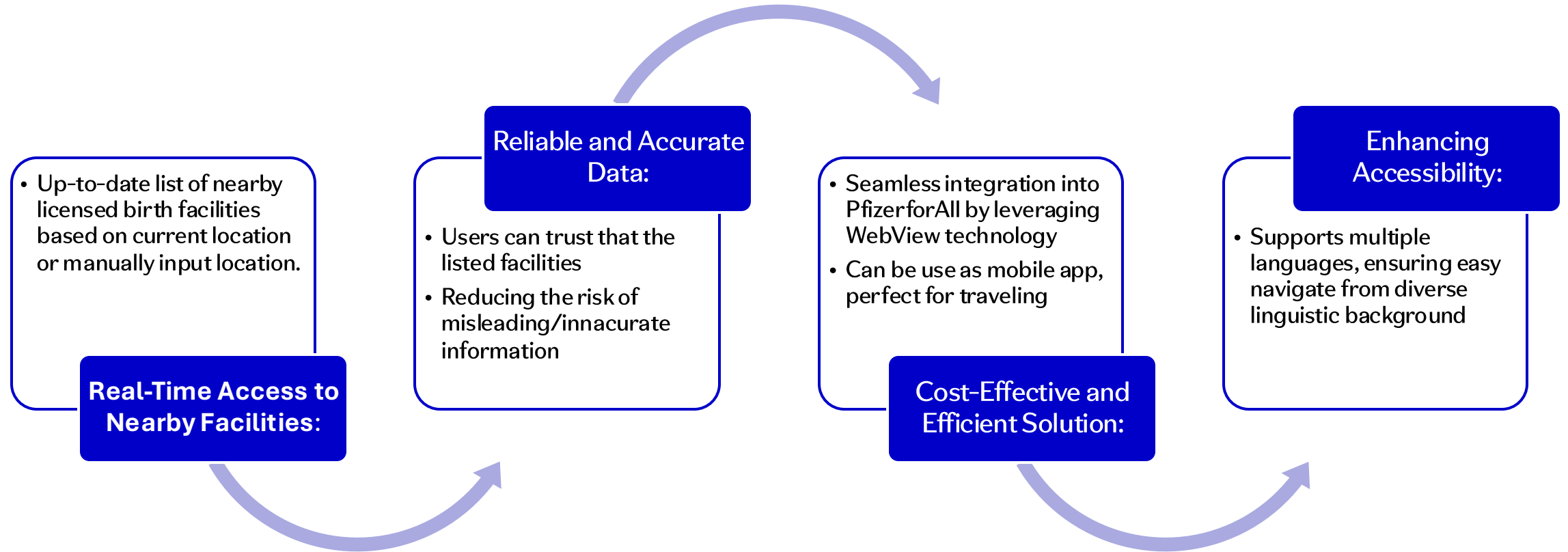
Insurance Companies

Health Ministries

# Commercial Viability



# Why does our solution work?



# Product Development Timeline

## Nearby Hospital Detection

- Timeframe: Implemented
- Help for Pregnant Mothers: Quickly finds hospitals for urgent childbirth
- Improved Safety and Access: Offers fast assistance for childbirth emergencies
- Technology used: React.JS Leaflet.JS

## Integration of App into PfizerForAll

- Timeframe: 1 month
- Would make the Product widely accessible.
- Simply integrate the pre-built system into the Pfizer for All platform.

## Implementation of Multilingual Translator Feature

- Timeframe: 1 month development
- Increased Accessibility: Allows non-English speakers to effectively use the app
- Should not require extensive technical redesign – only reliable translations.

## Bring App to Mobile Devices

- Timeframe: 1 month
- Would make the app much more accessible for users who may not have access to desktop computers
- Technology Used: Webview, Java

## AI-Powered Recommendations

- Timeframe: 2 months  
Provides more accurate info during emergencies.
- Incorporates advanced AI into the existing codebase for smarter recommendations.

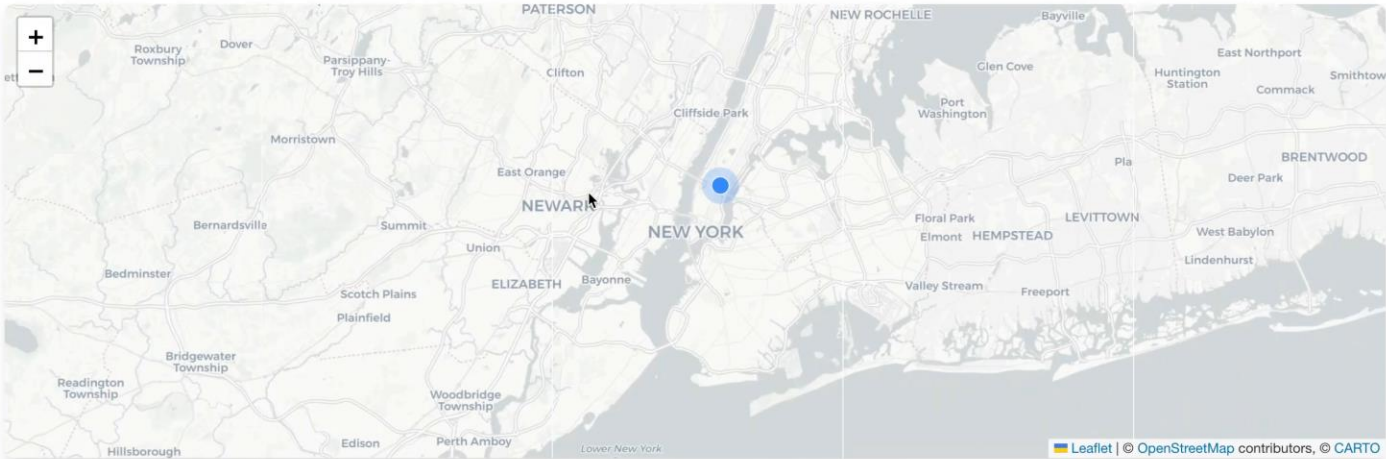
Are you an expecting mother who wants to know the options?

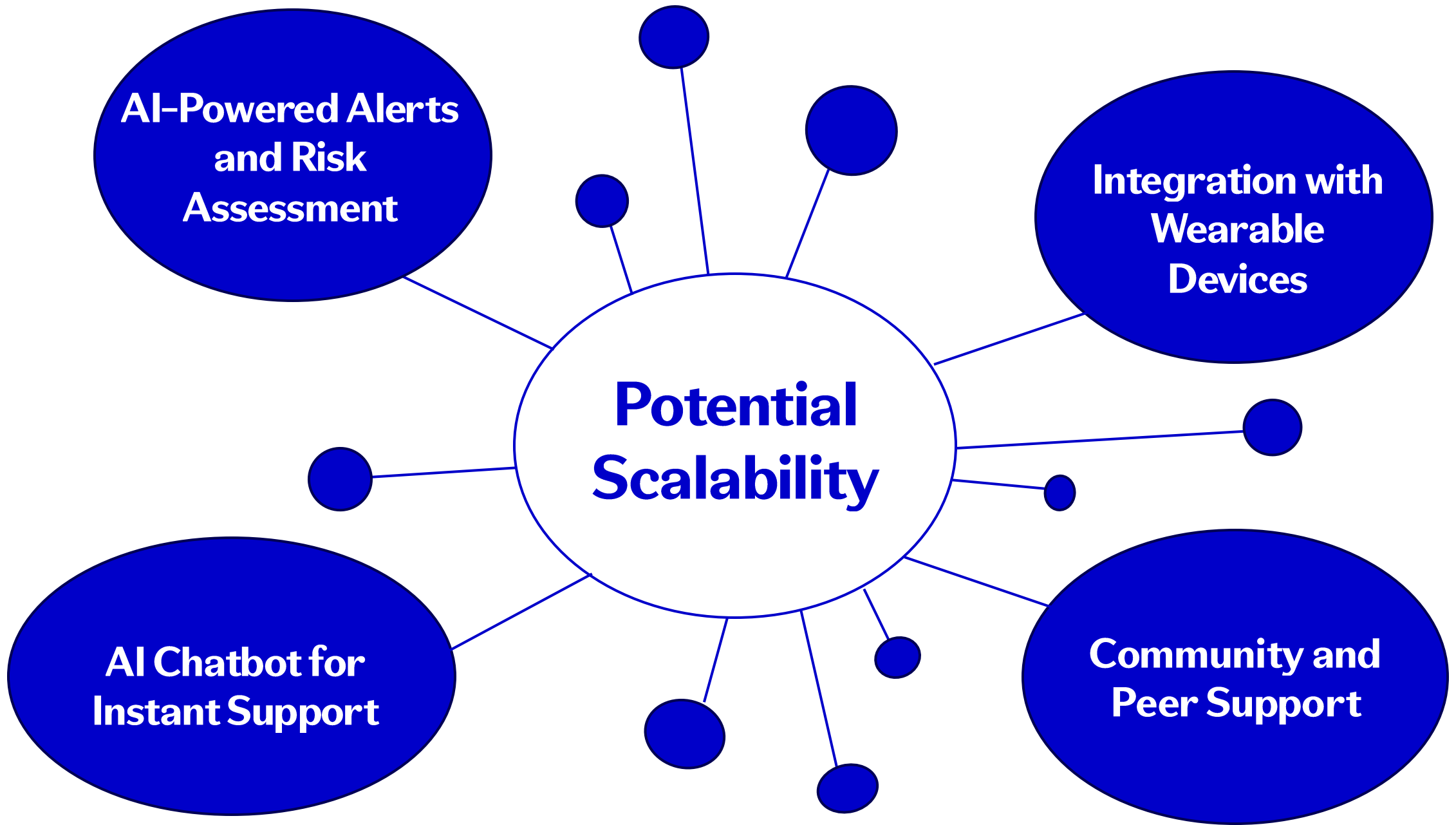
We're here to show you

Find the closest Hospital

Enter a ZIP Code

Search





# Thank You





# Bibliography

- Keenan, L. (2023, February 23). *A woman dies every two minutes due to pregnancy or childbirth: Un agencies*. World Health Organization. [https://www.who.int/news/item/23-02-2023-a-woman-dies-every-two-minutes-due-to-pregnancy-or-childbirth--un-agencies#:~:text=The%20report%2C%20which%20tracks%20maternal,\(SDGs\)%20came%20into%20effect](https://www.who.int/news/item/23-02-2023-a-woman-dies-every-two-minutes-due-to-pregnancy-or-childbirth--un-agencies#:~:text=The%20report%2C%20which%20tracks%20maternal,(SDGs)%20came%20into%20effect).
- Trost SL, Beauregard J, Njie F, et al. Pregnancy-Related Deaths: Data from Maternal Mortality Review Committees in 36 US States, 2017–2019. Atlanta, GA: Centers for Disease Control and Prevention, US Department of Health and Human Services; 2022.
- [Why Maternal Mortality Rates Are Getting Worse across the U.S. | Scientific American](#)
- [What's behind the spike in U.S. maternal mortality | American Medical Association \(ama-assn.org\)](#)
- [Maternal Mortality Rates in the United States, 2021 \(cdc.gov\)](#)
- [Maternal mortality rates and statistics - UNICEF DATA](#)
- [How far do urban, suburban and rural Americans live from a hospital? | Pew Research Center](#)
- <https://nihcm.org/publications/the-uneven-burden-of-maternal-mortality-in-the-us>