### **January 2022**

# EXECUTIVE SUMMARY.

**VioletHacks** 

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# **Project Description**

The disjointed American healthcare system causes inequities in care access, especially for those unfamiliar with current healthcare structures, medical terminology, or health insurance coverage status. Family planning services face an additional hurdle: stigmatization. Many women (or those assigned female at birth) may feel uncomfortable proactively accessing sexual or family planning services amid a confusing healthcare system. It has been observed that the collaborative interpretation model increases patient and doctor satisfaction through culturally sensitive and mutually agreed upon medical decisions. However, this anti-paternalistic model of communication relies on the ability to converse effectively. With only 12% of Americans considered to have proficient health literacy skills and 30% of Americans with a language other than English as their primary language, multiple barriers to care simply involve communication issues. This barrier is expected to be particularly potent for international students. We propose an app that aids in care access navigation and the provision of human engagement services for Virginia Tech students struggling to access family planning services. This app includes geospatial mapping of nearby care delivery areas, emergency service hotline, connecting with a student patient advocate familiar with the user's native language, and identification of providers within the user's network. We aim to destigmatize and increase accessibility of family planning services for international students through digital help and networking to student patient advocates.

## Value Proposition/Solution

Our app includes capabilities to connect international students with providers and patient advocates. This solution targets populations who face confusion or discomfort accessing stigmatized health services and alleviates these issues through a user-friendly tour of available healthcare options, all in one, accessible app.

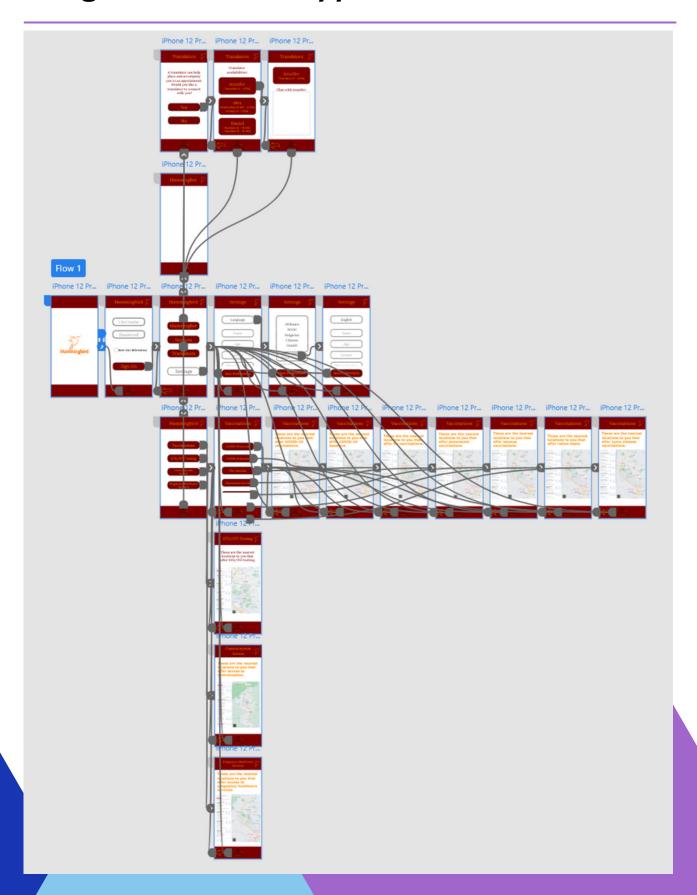
## **Context and Background**

Family planning services exist in nearly every country in some form, yet consistently spark controversy despite the program's prevalence. International students face a unique triage of conflict through stigmatization of family planning services, unawareness of a confusing healthcare system, and communication issues riddled with medical jargon. International students attending university in a rural area may face additional issues due to lack of nearby, advertised family planning services. The international student experience can already be isolating due to culture shock and separation from friends and family. Adding health care access issues would be an undue burden especially when faced with potentially stressful health news such as a surprise pregnancy or exposure to STDs. International students, or any university student with difficulty accessing care, require digital and human support navigating their choices.

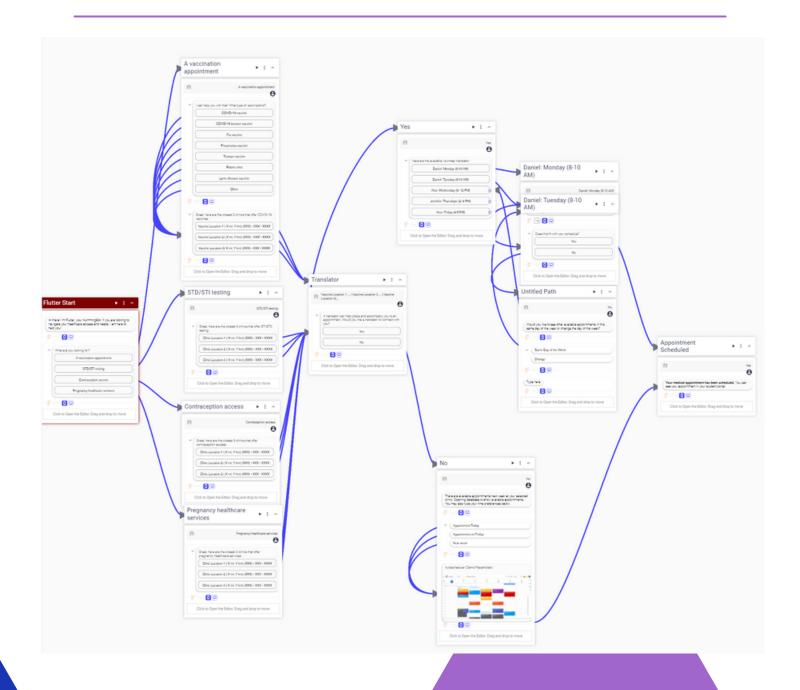
All contributors have a personal stake in health science by degree or by personal passion. We aimed to address healthcare access issues and prompted the question: how can we reduce stress and confusion when accessing family planning services? Through a comprehensive discussion, we were able to pinpoint communication issues and confusion to how the American healthcare system operates as pain points to care access. We constructed protypes aimed to accomplish 3 main tasks:

- `1) Help users identify what health issue they are currently facing. (ex: ado they need STD testing or contraception access?)
- 2) Geospatially map providers near the user.
- 3) Connect with a fellow student and patient advocate to reduce stress and isolation while receiving family planning care.

# **Design Flow- Mobile Application**



# **Design Flow- Flutter Bot**



## **Markets and Scalability**

As a non-profit product, our focus is to incorporate health centers and local clinics to quickly provide information and appointments to Vtech students and faculty. The Hummingbird app is able to grow into other health sectors as well. family planning services was targeted as an immediate need, but there is room for expansion into mental health as well. Future capabilities include scheduling therapy appointments for specific needs, such as an identification of ADHD or support through trauma.

## **Customer Acquisition**

Customer acquisition requires endorsement by universities and/or a positive word of mouth experience. Due to the controversial nature of family planning services, certain universities may feel compelled to withhold or suppress this app. Word of mouth, either by in-person advocacy or online discussions, will be the main vehicle of advertisement. More liberal universities may view this app as an additional tool in their health services arsenal. If this is the case, we encourage adopting universities to implement a "patient advocacy" program, where students who are fluent in multiple languages can act as care liaisons. Additionally, this opportunity could serve as university-approved volunteer hours for pre-med students.

We aim to apply this app to Virginia Tech first due to familiarity by contributors and their relatively high international student body (~12%).

# **Competition**

As this app is directly created for college students at Vtech, our research has shown no app that provides easy access to healthcare data, appointments, translators. Further our app functionality hopes to provide inclusivity in terms of language by providing volunteer translators and providing our app in various languages (our bot is currently available in English and German)

