



Adelie Health
www.adeliehealth.com

ADELIE HEALTH'S MOBILE APPLICATION

Proposal: Claire Zhou's Senior Thesis Project

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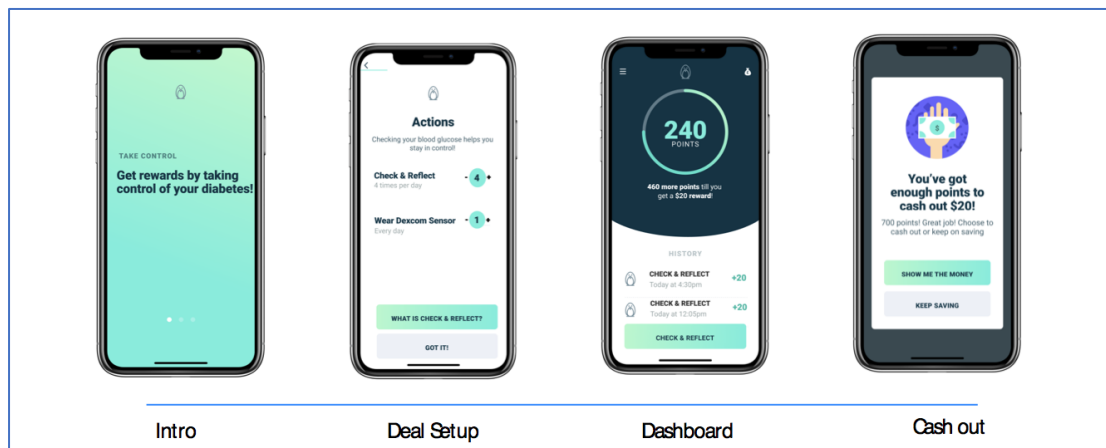
1. Summary

Overview of the context (problem, opportunities, situation or challenge)

Overview:

Adelie Health uses insights from behavioral economics to help people with diabetes manage their condition. Adelie Health is developing an iOS mobile application to incentivize young people with diabetes to undertake actions that are associated with improved diabetes control.

Routine Ninja™ aims to motivate young people with diabetes to self-manage their condition by enabling the user to earn rewards.



- **User profile:** Teenager (aged 12-17) with type 1 diabetes in the USA using a Dexcom continuous glucose monitor to keep track of their blood glucose readings.
- *The app is based on the following principals:*
 - Non-judgemental

Teenagers with type 1 diabetes have a hard time where they are constantly bombarded with blood glucose values which are instantly recognised as 'good' or 'bad'. We do not want to provide additional judgement. We want to reward teenagers for checking their blood glucose under the assumption that more checking will lead to more awareness and better diabetes self-management.

- Teamwork

Academic studies show that teenagers with type 1 diabetes who receive support from their family achieve better health outcomes. Through 'deal-making', we want to encourage teamwork between the teenager and parent where possible.

- Sustainable

It is not financially feasible to continue to give teenagers financial incentives. Upon app launch, the parent will be required to provide the financial incentive. User data will be used to build a business case to present to health insurers who will pay a fee to make the app available to their clients.

- Objective

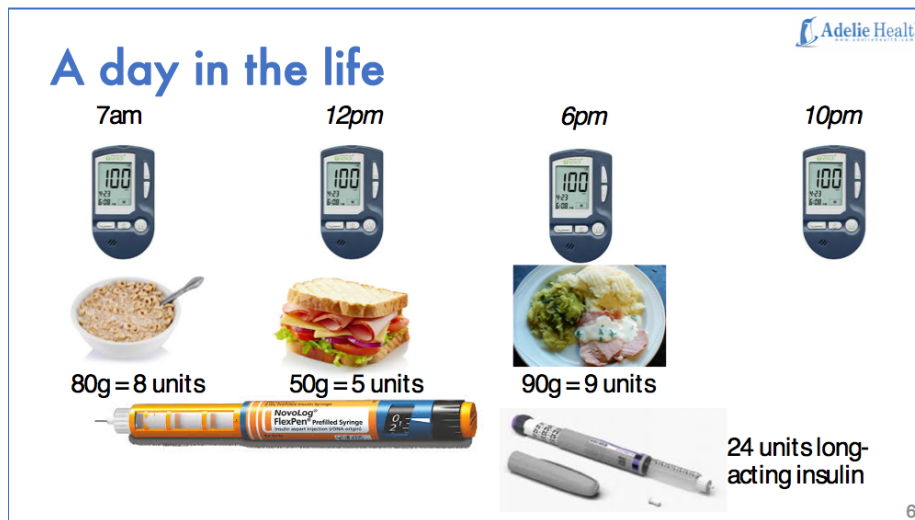
To ensure that all parties (users, parents, health insurers) can trust the app, the user will only be able to earn rewards for actions that can be objectively verified.

- **Value Proposition:** The app will incentivise users to check their blood glucose. This will improve health outcomes for the users, reduce anxiety for their parents, and reduce the risk of complications for health insurers.
- **Business Model:** Access to the platform will be sold to healthcare payers and providers on a fee per user/per month basis. The additional service to customers (compared to the free B2C versions) will enable them to provide the

financial incentive via the platform. Better adherence to medications reduces risk of hospitalization and reduces costs.

Problem:

Type 1 Diabetes management is really hard for teenagers. And some parents are worried about their kid's health.



Opportunities:

Health outcomes for young people with type 1 diabetes are poor and once the concept is proved, it can be applied to a wide range of areas — After proving the concept of financial incentives in teenagers with type 1 diabetes, it will be applied to all people with type 1 diabetes in the USA (n=4m), people with insulin-dependent type 2 diabetes in the USA (n=4m), people with type 2 diabetes (n=30m) and pre diabetes (n=84m) in the USA. It may also be applied to other areas such as asthma (n=25m) with connected inhalers.

My role

Claire will lead on the design of Adelle Health's app.

Claire's main role will be to ***undertake user research including interviews***(alongside Liam)¹, ***collate and interpret user feedback, iterate the UX***, and liaise with the app developer to communicate ***required iterations*** to app build. With an anticipated app launch in January 2019 (TBD), this process will see the product build, launch, and growth.

Goal for the work (outcome, changes it will make in the world, criteria for success, also maybe what you want to avoid)

- Improve type 1 diabetes teenagers' life;
- Improve the relationship between parents and kids.

2. Work Plan

Key milestones and (tactical steps and delivery dates) - first semester

	09/19	10/11	10/18	10/25	11/1	11/8	11/29	12/13
Send out Surveys and start recruiting								
Primary research								
Market research								
Critique the current MVP & Ideation								
Propose design solutions								
Usability testing								
Iteration 1								
Usability testing								
Iteration 2								
Finalize report								

Resources (people and processes)

Process:

- Collaborating with ADELIE HEALTH, Liam will help recruiting participants and provide incentives if required to ensure timely recruitment.
- Liam will review writing reports 12-24 hours ahead before it published.
- Claire will be provided guidance and support by [Matt Lenzi](#), Director and UX designer at [Hanno](#), a Digital Health Design Company. Alternatively, Claire will use this opportunity to reach out to people in her network, or outside her network, explain the lack of guidance and ask for mentorship.
- Claire will use PPPs structure to update progress every weekend.

People:

Liam Mc Morrow, PhD is the founder of [Adelie Health](#) and has lived with diabetes for 16 years. His PhD in health economics used insights from behavioral economics to understand why people make unhealthy food choices and is now being applied to diabetes self-management. Liam also undertook a two-year postdoc at the University of Oxford researching the health economics of diabetes.

Fintan Corvan, MBChB (MD in USA) is an acute medicine clinician working part-time at Adelie Health. Fintan brings medical expertise to all aspects of the company.

Jeremy Wheeler, Peter Laitenberger and Scott Grubb are contributing to the development of the pen cap device used to track insulin injections.

Andy Hill, Prof Sean Dinneen and Albert Nicholl are advisors to Adelie Health. Jon Lay and Matt Lenzi are digital health app designers at [Hanno](#). Hanno facilitated the initial Sprint which designed the app wireframe.

The Team

The team consists of ten members arranged in two rows. Each member has a portrait and a bio. The top row includes Liam Mc Morrow (CEO, Founder), Fintan Corvan (COO, Acute Medicine Clinician), Jeremy Wheeler (Regulatory/Operations COO at Aircraft Medical), Peter Laitenberger (Inventor, physicist, Former SVP R&D, Sphere Medical), and Scott Grubb (Electronics). The bottom row includes Andy Hill (Former CEO of three Medtech companies), Prof Sean Dinneen (Diabetes Consultant, National Lead for Diabetes), Albert Nichol (Sales & Marketing, Stryker Ortho, Former CEO, MD at start-ups), Jon Lay (App dev.), and Matt Lenzi (App design). A 'special agent' badge is placed above Peter Laitenberger's portrait, and a 'HANNO' badge is placed above Jon Lay's portrait.

3. Appendix

Table 1: MVP App

Version	Features
MVP V. 1.0	Intro screens Fixed deal Logic to calculate points Dashboard displays points and history User can 'check & reflect' API to Apple Health to verify blood glucose check Push notification to user Automated update notifications to Adelie Health Automated update notifications to parent
MVP V. 1.1	Iterations from user feedback User and parent set terms of deal
MVP V. 1.2	Iterations from user feedback Backend server (user account, parent account, define metrics important to Adelie Health, HIPAA) Parent web dashboard/notifications to monitor user
MVP V. 1.3	Iterations from user feedback Marketing and branding strategy

Table 2: App Launch

Version	Features
V.2.1	Iterations from user feedback Backend server (ensure data consistent with potential partners' aims (e.g. health insurers))
V2.2	Iterations from user feedback Iterations to enable pilot study with Novo Nordisk

Table 3: Additional Features

	Features
	Process payments within the app
	Customer support features (e.g. chatbot)
	Build network effects (e.g. peer-to-peer support)
	Build gamification techniques (e.g. streaks)
	Psychometric profiling to determine best rewards
	Connect to other devices to reward wider set of actions
	Apply outside of diabetes (e.g. asthma, weight loss)