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Business Proposal Draft

**Problem:** According to the CDC, approximately 1,107,700 individuals are living with HIV, and each year that number increases by approximately 40,000 people. With improved testing, stronger attention toward the risks and treatment of HIV, and affordable and often free preventative medicine, the number is slowly decreasing. Unfortunately, some of those who are at high risk of acquiring the virus (such as male homosexuals) have limited access to the current methods of testing due to income, no insurance, transportation, or lack of clinics in their area.

**Solution:** A portable, reusable HIV testing kit made easily accessible to the general population with no insurance needed for purchasing at an affordable cost.

**Audience:**

1. High-risk individuals with difficulty obtaining an HIV test due to any personal limitation (i.e. financial, transportation, lack of insurance).
2. High-risk individuals seeking a more convenient method of testing that fits with their everyday routine.
3. High-risk individuals simply wanting a less expensive and easier method of testing.
4. Pharmacists, physicians, and HIV specialists.

**General Information About HIV Testing**:

1. High-risk individuals are men who practice anal sex with other men and relationships where one partner is HIV positive and the other is negative.
2. Window periods are the periods where the virus has infected the body, but antibodies made to destroy it have not yet been produced and are still undetectable.
	1. These periods vary between 3 weeks to 6 months depending on an individual’s immune system.
3. The only way to accurately test for HIV is through blood sampling.
4. When an individual is exposed to the virus, the amount of the virus in the blood is high and makes it more contagious. Only with proper HIV treatment, the virus is hard to transmit.
5. “Undetectable” means the virus cannot be found through lab testing due to HIV treatment. The person is not cured, but the medication stops the virus from spreading and infecting others.

**Existing Competitors:**

1. Lab HIV testing: can take two weeks to obtain results and are accurate if tested at least 21 days after possible exposure. Varies from $25-$300 and is available at some STD clinics.
	1. Tests for HIV antibodies and p24 antigens, making results 99% accurate with a shorter window period. Requires two vials of blood for testing.
2. Rapid HIV testing: immediate results in two minutes, but inaccurate unless administered three to six months after possible exposure. Free test available at some STD clinics.
	1. Tests only for HIV antibodies, which can take up to six months to produce. Requires a finger prick for 99% accurate results.
3. At-home HIV testing kits: results in twenty minutes, but inaccurate unless administered three to six months after possible exposure. Available for purchase in some drug stores, varying from $35-$120.
	1. Tests only for HIV antibodies, takes up to 20 minutes for results, and uses saliva for 92% accurate results.

Each are helpful, but the less someone pays for a test, the less accurate they become, and require finding clinics or stores that offer them.

Assessing this ongoing problem within the high-risk population requires an understanding of how many people face this problem. From there, the population can be narrowed down to the targeted audience. This will provide information on their testing practices and limitations.

**Sampling the High-Risk Population:**

1. A three-choice questionnaire (limited to those 18+) containing a few questions regarding common HIV testing practices and possible difficulties obtaining tests will be composed.
	1. The choices will be 1) Yes 2) Sometimes 3) No
	2. Some questions will have areas for free response.
2. The questionnaire will be administered through Survey Monkey and will be dispersed among 100 high-risk homosexual men through Facebook and local HIV clinics.
3. Due to the topic being personal, all results will be logged as anonymous, only indicating what age and what sex the individual is. Other specifications will not be released to the conductor nor the general public.
4. Some results may be skewed or inaccurate due to some individuals in denial about their routine STD check ups, knowledge of safe sex, or lack of motivation to complete the survey.
	1. If the survey is noticeably skewed, the results will be thrown out and other participants will be sought after.
	2. Due to the survey being anonymous, individuals may be less likely to lie about their sex practices.
	3. When calculating results, the possible sampling bias will be taken into mind.
5. Personal interviews will be conducted upon participants’ consent. They will be asked the same series of questions as well as any personal answers they’d like to give regarding HIV testing.
6. Results will be calculated by a percentage of high-risk individuals who do or do not perceive testing as inconvenient or limited to them due to any specific personal reasoning.

**Sampling Data:**

Question 7 method responses have been simplified into categories with their corresponding percentages

The data organized within this table was sampled from a population of 100 anonymous individuals

**Question 7 Method Responses:**

Rapid HIV Testing: 85% | 4th Generation Testing: 10% | At-Home Testing: 5%

**Questions:**

*Only certain questions had the “Sometimes” option due to what was asked.*

1. Are you at high risk of acquiring HIV (as in: men who have sex with men or relationships involving one partner who is positive)?
2. Do you engage in sexual intercourse without condoms?
3. Have you acquired any STD over the past 6 months?
4. Do you know where you can go to get an HIV test?
5. Do you have access to these testing centers?
6. Have you been tested more than once for HIV?
7. Do you routinely get tested for HIV? If so, provide your method of routine in the free response area.
8. Are you on PrEP (Pre-Exposure Prophylaxis)?
9. A 4th Generation HIV Test can cost up to $25-$600 depending on insurance, and At-Home HIV Tests can be up to $60 each. Are you able to afford these types of testing?
10. Are rapid HIV tests available to you for free or at a discounted price?

**Data Analysis:**

 A survey of 10 questions, completed via Survey Monkey, was administered to a population of 100 individuals. The population was gathered by asking individuals around the Atlanta area, as well as groups that are seen to have a high-risk of infection (i.e. male homosexuals), if they would participate in a survey about HIV. This population gathering required asking individuals in person and reaching out online through social media platforms (Twitter, Facebook) and Facebook groups. In-person surveying was done at AIDAtlanta (HIV clinic) and Caribou Coffee (coffee shop near gay bars) located on the corner of 10th Street and Piedmont Ave.

 Based on the data received, approximately 80% of the sampled population are of high-risk, while the other 20% are not. From here, we can determine a set of two potential personas: one who’s in need of HIV testing, and one who occasionally needs to be tested. Question 2 and 3 go hand-in-hand; both are centered around sexual practices and risks, and they’re essentially a tie. These results allow us to get a better understanding of the population—just about half engage in condom-less sex and have acquired an STD in the past 6 months. Question 3 and 4 also go hand-in-hand—telling us whether or not our population knows where to get HIV testing and if they have access to it. Most of the population knows where to get an HIV test, but more of our population cannot access those testing centers due to either transportation or that no clinics are in their area.

Question 6 and 7 gets more specific, narrowing down the population more. 73% of individuals have been tested for HIV more than once, but only 32% are routine testers. From that percentage, it could be said that a good amount of the population still has limited access, and potentially need alternative methods of testing. Question 8 narrows the population slightly, as those on PrEP require testing every 3 months. Yet, since 60% of the population is taking it, it separates another group from the population as they possess a 99% chance of never getting HIV, but do require routine testing.

 Question 9 shows that majority of the sampled population have no interest in 4th Generation tests nor at-home testing due to their price. This is to be expected as rapid testing is free at most clinics, and as question 10 shows, about half of the population have access to that type of testing. This presents a possible competitor toward the portable HIV test, but it does help get a good idea of who the intended audience will consist of, thus narrowing down the qualities of each persona.

From the data collected, most of the population would prefer a test that produces results fast, but can be accessed easily. Since routine testing isn’t as common in those of high risk, they need something that would encourage it without an inconvenience that may deter them. It must be beneficial to those regularly practicing unsafe sex, providing affirmation of their status so that they can get treated or continue with their practice. Attractiveness of the test is essential by providing privacy, easy use, and reduced effort obtaining results.

**Prototype:**

Lancet

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**How to Use:**

1. Wash and dry hands thoroughly to prepare for the test.
2. Insert the lancet into the circle opening of the device until it clicks, indicating that it’s ready
3. Holding the same opening over the tip of your finger, press the button on the left side down to lance the skin.
4. After lancing and the blood sample is pea-sized, insert a testing strip into the small rectangle opening of the device and turn it on.
5. If you’ve inserted the strip correctly, the device will display the words “READY,” and you can complete your test.
6. Place the small opening of the strip on the sample until enough is absorbed. (Pay attention to the dotted line on the strip. Once the blood reaches that point, enough has been sampled).
7. Press the “CALCULATE” button on the outside of the device after sampling.
8. The screen will produce a 1-minute timer, counting down until your results will be calculated.
9. Afterward, the screen will either say “REACTIVE” (meaning positive) or “NONREACTIVE” (meaning negative). If reactive, you will need to call your local HIV/STD clinic or primary physician for a professional lab test to confirm your HIV status.
	1. Results can be saved into device’s memory to keep track of testing dates and status affirmation for partners.
10. Once test is completed, remove strip and lancet from the device and dispose. Place device in a safe area where it can’t fall or break for your next test.

**Challenging Existing Competitors:**

1. Similar to a blood-sugar tester, the portable HIV tester produces results in under a minute, faster than lab testing, and is rechargeable and reusable.
2. Can produce 99.99% accurate results in two minutes, one month after potential exposure, unlike other rapid testing that takes three months.
3. Individuals would not need an appointment or leave their homes to complete an HIV test and can be done in privacy.
4. Requires a small amount of blood for sampling instead of vials.
5. Increases the chance that someone unknowingly infected finds out their status and prevents infecting others.
6. Retails at $39.99 with five testing strips and lancets included and only $5 for a separate set of five testing strips/lancets.
	1. Averaging at about five HIV tests for the price of one at-home test or one 4th-Generation Lab Test.
	2. Produces results two months faster than rapid HIV testing due to an improved system in the device that tests for HIV p24 antigens and antibodies.

**Eliminating the Problem:**

With easier access to testing, high-risk individuals can practice routine testing without spending out of their budget or travel to STD clinics. Individuals can know their HIV statuses in a short time period and refrain from sex if they’re positive and must seek treatment. With the devices easy accessibility, it would become the preferred method for routine testers on a budget and without transportation or clinics. The small amount of blood required will also help make the device attractive to others. This will promote routine testing, and will decrease the amount of yearly infections.

**Personae:**

 Below are tables exemplifying the potential customers who may find this new product more helpful than current competitors’ testing methods. Each table has an individual with personal attributes related to their daily agenda and activities, their situation relating to HIV, sexual practices, sexual orientation, and wants and goals that attribute toward a better way to keep up with their testing. The purpose of these personae is to obtain a better understanding of those who are at higher risk of infection and have dilemmas that limit their ability to get the testing that they need. This will be the audience that the product will appeal to in order to solve their dilemmas. They are also the people that can be used in advertising to raise awareness of the product to those who relate to the personae. The more people who can relate to the personae, the more the product can be sold and become a better option than the existing competitors.

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|  | **Ambitions**1. Graduate from college with a degree in business. 2. Get a job within the first year out of college. 3. Become financially stable and own a house and car. | **Wants**1. A boyfriend.2. To avoid HIV infection by knowing his status.3. A routine for HIV testing that fits in with his college and work schedule.  |
| **Biography**Christopher is a 21-year-old college student living in Atlanta. He has a part-time job at a local restaurant. He shares an apartment with some of his friends who he spends time with every day, whether it be studying or going out to the clubs and bars on a night off.  | **HIV Situation**Chris is currently HIV negative, but some of his friends have been infected in the past and urge him to keep up with his testing and take precautions. He’s scared of getting infected and not knowing. Unfortunately, Chris rarely has time to go get tested due to his college and work schedule, and it can be challenging to get to the clinics through all of the traffic.  | **Dilemmas**1. Limited free time due to busy college and work schedule. 2. Gas is too expensive to keep up with driving to the clinics in city traffic. 3. Doesn’t have much access to any HIV testing. 4. Limited funds due to rent, college, and daily necessities. 5. Lives in a city with a high HIV infection rate in the gay community. |
| **Sexual Orientation**Homosexual | **Sexual Practices & Risk Factors**Uses condoms sometimes. High-risk individual. | **Relationships & Love Life**SingleSeeking relationship |

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|  | **Ambitions**1. Maintain her profession. 2. See her children graduate from high school and college.3. Keep her entire family happy.  | **Wants**1. A less expensive way of getting her routine testing done. 2. A testing method that produces quick results and helps ease her anxiety. 3. Not have to go so far for an HIV test.  |
| **Biography**Linda is a 34-year-old marketing manager living with her husband and 2 children in the suburbs of Georgia. Her husband works a separate job in construction. She has a couple of friends in the neighborhood who she likes spending free time with during the weekends.  | **HIV Situation**Linda’s husband is HIV positive, so she has to go through HIV testing about every 3 months. Going to the clinic so often can be expensive, and Linda can’t afford to keep getting 4th Generation tests, especially since her insurance co-pay is so high. The tests take 2 weeks to produce results, and Linda hates waiting that long.  | **Dilemmas**1. The cost of going to the HIV clinic and testing is too expensive. 2. The results for each test take too long. 3. Has to get tested every 3 months for her health.4. Clinic is too far away since her city doesn’t have one. 5. Going to the clinic and waiting for the results increases her anxiety.  |
| **Sexual Orientation**Heterosexual | **Sexual Practices & Risk Factors**Does not use condoms. On birth control. High-risk individual. | **Relationships & Love Life**Married |

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|  | **Ambitions**1. Getting a promotion at his job. 2. Make enough annually to afford his own place with his boyfriend.  | **Wants**1. An accurate HIV test that is affordable and doesn’t require insurance. 2. To be able to stay on PrEP since he’s still at high risk. 3. An HIV test he and his boyfriend can rely on that produces accurate results.  |
| **Biography**Sam is a 26-year-old optometrist working at an eye clinic in Atlanta. He lives near Smyrna with two other roommates (including his boyfriend), but is mostly in Atlanta for work during the week and entertainment on the weekend.  | **HIV Situation**Sam and his boyfriend are HIV negative, and they’ve been on PrEP for 2 years, eliminating their chances of getting infected by 99%. Every 3 months, he has to get tested, but his insurance is raising his monthly fees due to the cost of PrEP and constant lab testing. He wants to stay on the medication to avoid getting HIV, but can’t afford the testing anymore.  | **Dilemmas**1. Insurance fees are making current HIV testing too expensive.2. Discounted/free rapid testing aren’t reliable or accurate enough for him. 3. In an open-relationship, which poses a higher risk for him due to multiple sexual partners. 4. Lives in a high-infection-rate city. 5. Has had some STD infections in the past 6 months (even higher risk of infection) |
| **Sexual Orientation**Homosexual | **Sexual Practices & Risk Factors**On PrEP (Pre-Exposure Prophylaxis). Does not use condoms.High-risk individual (PrEP does not eliminate the possibility of infection). | **Relationships & Love Life**Open Relationship |

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|  | **Ambitions**1. Climb the corporate ladder at her current retail job. 2. Save enough money to move out of her parents’ home. 3. Have a family one day.  | **Wants**1. A test that she can do on her own to avoid embarrassment. 2. Affordable testing in order to continue saving her money.  |
| **Biography**Miranda is a 23-year-old assistant manager at a local retail store in her home town. She graduated from college a year ago and is currently looking to work her way up into the corporate level of her job. She’s not pursuing any relationship as she doesn’t see the need for one in her life currently, but she is still sexually active.  | **HIV Situation**Miranda is at a low risk of acquiring HIV, but it isn’t rare to get the virus, and she is at a slightly higher risk of getting it than her male sexual partners. She needs to keep up with her testing since she’s only been tested once, but she doesn’t know of any clinics offering HIV testing in her area, nor does she know if she’ll be able to afford driving there or getting the test done at all. She’s seen the at-home kits, but they’ve always been too expensive for her.  | **Dilemmas**1. Unaware of clinics in her area offering HIV testing. 2. Embarrassed about getting any testing done, especially when there are people around to see. 3. No idea if she’d be able to afford the tests offered to her. 4. Doesn’t have insurance. 5. Has been infected with a few STDs in the past 6 months. 6. Known STD clinics only offer Chlamydia and Gonorrhea tests.  |
| **Sexual Orientation**Heterosexual | **Sexual Practices & Risk Factors**Does not use condoms. On birth control. Low-risk individual. | **Relationships & Love Life**SingleSexually active |