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**A Plan to Prevent Cardiovascular Disease in BC**

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# Overview

This document describes a communication plan to increase testing in B.C. for lipoprotein(a), a risk factor for heart disease, using a two-pronged approach targeting the public and physicians.

Background Lipoprotein(a) (Lp(a)) is a type of cholesterol present in the blood at varying levels across the population. High production of Lp(a) is highly heritable (90%) and is an independent and significant risk factor for early cardiovascular disease (CVD). Estimates suggest that as much as 20% of the population may have elevated Lp(a). It is currently untreatable, does not change with age, and is not affected by traditional risk factors (diet, exercise, obesity, etc.).1-3 A blood test for Lp(a) is available, is offered by Lifelabs in B.C., and is covered by MSP.

Screening for heart disease risk is recommended to begin at 40 for men and 50 for women. The Canadian Cardiovascular Society CVD Prevention guidelines list Lp(a) as an additional testing option in people with a history of CVD but it is not generally part of the lipid panel ordered by physicians as part of regular CVD screening.4 The BC Guidelines for CVD Prevention do not mentioned Lp(a).5 Many Canadian physicians are unaware of Lp(a) or its potential to increase CVD risk.6 While as many as 1 million British Columbians may be at excess risk due to Lp(a), across the 2014/15 and 2018/19 fiscal years, an annual average of only 4,325 Lp(a) tests were conducted in the province.7

Objective The purpose of this communication plan is to increase testing for Lp(a) in B.C. Therefore, the outcome goal for this plan is an increase in annual Lp(a) tests, information which is publicly available.7 The evaluative criterion is the difference in annual Lp(a) testing in the five years after implementation of the communication plan, compared to the five years pre-implementation. Testing numbers for Lp(a) have roughly doubled in 2018/19 compared to 5 years prior (5,694 tests vs. 2,978 tests). Therefore, the overall target is to exceed this “natural increase” by increasing testing numbers by more than double over 5 years. This plan is broken down into to arms: one aimed at the public and one aimed at physicians. An important process goal that connects the two arms is congruency in the messaging about who should be tested for Lp(a). Creating disagreement between the public and physicians in this area must be avoided. This will be done through repeated audit and comparison of the communication materials being shared in each arm. Materials will be amended on ongoing basis, as needed.

Collaborations This plan involves development of an ongoing collaboration with The Heart and Stroke Foundation of Canada. This group was chosen because of their strong existing presence, both on and off social media, recognizable brand, and focus on CVD prevention. This collaboration will involve the development of a campaign website. The purpose of this website is to provide a greater degree of detail and information beyond the initial strategies described in this document. Most importantly, this website will provide information on how to talk to your doctor about getting tested. It will also serve as a way for the public to share information about this topic. The ways in which this website will be leveraged will be described throughout the description of the campaign. While this website will be mainly focused on the public, it may also be used to provide information to physicians.

# Aim 1: Public Awareness

Mission The goal of this arm of the communication plan is to increase awareness among the public about Lp(a) as a cardiovascular risk factor and to encourage those with relevant family history to seek testing by talking to their doctor. Because Lp(a) is a risk factor for early CVD, and because they are not traditionally considered at risk for CVD, this arm prioritizes people under the age at which cardiovascular screening begins in the province (40 for men, 50 for women). This is discussed in more detail below.

The primary outcome measure for this goal will be the number of Lp(a) tests conducted in the province. These data will be gathered through a partnership with LifeLabs, a private company that provides the majority of the province’s lab tests and that has a history of participating in research projects. This information will be collated into monthly totals so the impact of the public awareness campaign can be measured. Using this metric, the overall effect of this public awareness campaign may be difficult to parse from the effect of the second arm (physician awareness) or from unrelated causes. However, monthly data will allow for analysis of a relatively narrow and short-term time window following the launch of the public campaign. Specifically, this goal will be measured by comparing testing numbers over the first 6 months following campaign launch, compared to the 6 months preceding the launch. As with the overall goal, the target is to increase the number of tests above and beyond what is normally observed in that time period. This measurement is distinct from that of the physician arm, which would be expected to have an effect over a number of years (discussed in Aim 2). Comparing testing rates to social media engagement will be used to understand the degree to which the communication plan contributed to the increase in testing rates, if observed.

*Audience* The overall audience for this campaign is people who may be at increased risk of CVD due to Lp(a), suggested by a family history of early CVD, heart attack, or stroke (meaning before age 50 for men and age 60 for women4). The primary audience is people who may be at risk from Lp(a) but who are too young to receive continuous screening for cardiovascular risk (under 40 for men and under 50 for women). This audience was targeted because younger people’s cardiovascular risk is not often considered during their medical encounters and, for the most part, they are not expected to seek care related to heart health unprompted. Furthermore, because they have yet to develop other cardiovascular risk factors, they may benefit most from early intervention.

The characteristic of this audience most important to this plan, besides age, is that they do not yet, for the most part, consider their health to be at risk. This will require the plan to provide relatable, real-world example of people their age who were negatively affected by Lp(a). With respect to age range, the lower bound is 18 years of age. This was chosen because people at this age are no longer minors and therefore have more control over their choices. While people on the low end of this age range have very low CVD risk, autopsy evidence suggests that people as young as 15 can have clinically significant evidence of atherosclerosis.8

The secondary audience is people who may be at risk from Lp(a) and who are old enough to be screened. This group is of secondary importance because they are, or should be, receiving regular cardiac screening, have a better chance of already receiving Lp(a) testing, and increasing Lp(a) testing in this group can also be achieved through the physician arm of this plan. One characteristic of this audience that is important to consider is that, though aware of their health, they are continuously being exposed to different factors they need to consider for their health. This will require any communication with them to rise above these other risks. A tertiary audience for this campaign is family members of those who would benefit from Lp(a) testing who could pass on the information to those at risk. While the main focus of this plan is on the primary audience, it may incidentally reach the other audiences. These audiences could and should be targeted with an expansion of this strategy, should it be found to be effective.

### *Other Considerations*

*Ethics:* Most importantly, this campaign must avoid instilling a sense of fatalism amongst the audience. It must be made clear that this risk factor does not damn you to dying of heart disease, but that it is a risk factor that you need to consider in the overall assessment of your cardiac risk. It would be unethical to put people in a situation where they went to a walk-in clinic, requested and received their lab results, and left without properly understanding the risk they have now learned about.

*Barriers:* The primary barrier that I have identified for this audience is apathy or lack of willingness to act on the information they have been given. People are presented with risks about their health all the time. Young people may not believe they are at risk. An important feature of this campaign will be strategies to develop and maintain the salience of this risk in people’s minds. Furthermore, genetic risk factors can be difficult to act on and people may react fatalistically to this information. They may feel that it is not worth acting on because there is nothing they can do to reduce their risk from Lp(a). While there are no treatments for Lp(a), this campaign will focus on placing this risk within the context of other cardiovascular risk factors that can be modified, and encouraging action based on having control over them. Other barriers faced, and addressed, specific to the messaging in this campaign are addressed below.

## Message

*Precaution Adoption Process Model* The Precaution Adoption Process Model (PAPM) is a conceptualization of how people progress from unaware to aware of an issue and then taking action specific to that issue. Visualized below, the PAPM consists of seven stages. People can move back and forth between stages or stall on one stage.

Specific to this arm of the strategy, the stages are: Stage 1: Never heard of Lp(a); Stage 2: Heard of Lp(a) but not considering testing; Stage 3: Undecided about getting tested; Stage 4/5: Decide to get ask doctor about getting tested, or not; Stage 6: talk to doctor about getting tested (Appendix A). Because it only takes one blood test to learn that you have hereditary high Lp(a), many patients may “end” at Stage 6, with the action being their asking their doctor about getting tested. Therefore the primary goal of this arm, as described by the PAPM, is to get people to Stage 6. However, if their doctor is initially hesitant, it may require that the patient continue to ask to be tested (Stage 7: persistence). However, it is expected that the majority of patients will not be required to badger their health care provider. The messaging, described in detail below, will be effective in both those who end at Stage 6 and those who are required to end at Stage 7. Overall, the majority of the public are likely to be in Stage 1 (Never heard of Lp(a)). It is often the case that tools need to be targeted at specific stages of the PAPM. However, the messaging used in this plan is expected to apply to all these stages by repeatedly highlighting Lp(a) as an important risk factor and the benefits of knowing your levels — this will encourage people who are unaware or unengaged to act, as well as those who are undecided or have yet to act.

### *Barriers to Moving Between Stages*

*Perceived Susceptibility:* People may not think that their family history warrants them getting tested, they may think that a family members cardiac event was caused by something else.

*Stage Paralysis*: Getting a test related to genetics can be scary and it may prevent people from acting (ie. they may feel that it’s better not to know)

*Barriers to Action*: It is notoriously difficult to get people to visit their doctors, even when they need it. This particular communications plan involves encouraging mostly healthy people to get tested for a risk factor that they *may* have and one that increases *future risk*. The intangibility of this risk will increase the strength of this barrier. Another significant barrier to action is the common challenge of talking to your doctor about getting tested.

*Solutions* The *Perceived Susceptibility* barrier is addressed by “casting a wide net” in the messaging used to encourage action. That is, it aims to facilitate action in anyone whose family member had any unexpected medical event related to the cardiovascular system, including stroke, heart attack, angina, or diagnoses of heart disease. By generalizing to a larger audience, this strategy maximizes the number of people who will move to Stage 6 (ask their doctor), allowing the care providers to decide whether or not the family history is relevant, or to seek further information about Lp(a) as a cardiovascular risk factor. Both the *Stage Paralysis* and *Barriers to Action* will be addressed using an empowerment approach, meaning that the strategy is framed as giving people the means to avoid sickness and death and live a long and healthy life. Importantly, this strategy will avoid promoting fatalism and will actively downplay this tone. This means that, instead of pointing to the risk conferred by Lp(a) once tested “positive”, it will point to how the test results can inform how a person can address the other risk factors they can control, like diet, exercise, and cholesterol levels. Finally, these barriers will be addressed through the use of compelling narratives, real-life stories, and the “arouse and fulfill” approach, detailed in the next section.

*How to Move People: Style and Substance* With consideration of the above barriers and factors, the general concept of the message for this campaign is*:*

Lp(a) is an important risk factor for heart disease that can kill people at any age and it is important that people get tested so they can know their risk and take steps to mitigate it.

The overarching style of the communication products for this plan will follow the “arouse and fulfill” paradigm. That is, the products will begin with an emotional attempt to catch the audience’s attention and then provide information on how people can act on what they just learned. Considering the “Four Organ’s Theory”, this plan will focus on speaking to the heart (arouse) and then the brain (fulfill). The heart will be targeted by emphasizing characters within the narrative and by highlighting the tragedy of avoidable, early death. With respect to substance, this plan will follow the “And, But, Therefore” narrative structure. This means it will begin with contextual information ( \_\_\_\_ and \_\_\_\_\_ ) followed by introduction of the issue or choice-point ( but \_\_\_\_ ) and closed with the resolution (therefore \_\_\_\_ ). An example of these concepts being used in unison is:

Heart disease is a leading killer of Canadians **AND** 1 in 5 people are at risk of dying at a young age due to Lp(a) **BUT** if you know you have this gene you can take steps to reduce your risk **THEREFORE** its worth your time to get tested for high Lp(a). Talk to your doctor.

This narrative structure will be used for the social media posts, described below, while some will take on the informational theme described above, other posts will take on several different themes, depending on the platform:

Prevention Theme: Even though I’m a healthy 35-year-old, my risk of heart attack is higher than most people in their 50s. My whole family is at higher risk. Luckily, I had a blood test and I’m now aware of it so I’m able to take care of myself and stay healthy for my daughters.

“I wish I knew” Theme: Steve wasn’t expecting to have a heart attack at 35. What Steve didn’t know is that he was at risk due to his genetics. Sadly, there is a blood test that could have told him he was at risk so this tragedy could have been avoided. If you have a family history of early heart attacks, talk to your doctor about getting tested for Lp(a).

A more fulsome example of this style and substance structure is provided in Appendix B. A stylistic choice is also made to repeat Lp(a), or lipoprotein(a), as much as can be stomached. There is a fine balance between being annoying and forgettable. However, because the majority of people are unaware of Lp(a) (Stage 1 of the PABM), it is important to engrain this risk factor as an important item for them to remember and address.

## Medium

*Social Media* The medium that will be used in this campaign is social media. This choice was made because social media lends itself to emotionally stirring storytelling and narratives and is easily shared across wide groups of people. Furthermore, social media can also be used to target key demographic groups, both by choice of the platform and through sponsored content. As mentioned, the success of this campaign will benefit from partnerships The Heart and Stroke Foundation. Other potential collaborators who have an existing social media presence are the

Canadian Cardiovascular Society and the Cardiac Health Foundation of Canada.

The people who could potentially benefit from asking their doctor about a blood test for Lp(a) likely share a common story with one another — an unanticipated or premature death or cardiovascular illness in their family. In that way, social media will be a powerful tool for them to share their stories and encourage other people to act and pursue testing. Twitter, Instagram, and Facebook will all be used for this campaign. The social media messages aim to communicate the narrative message discussed above and to facilitate clicking through to the campaign website to augment this messaging. Overall, the public must be convinced that this is something they need to care about, that they should add this potential medical issue to their long list of thing they need to get done. Because people’s attention spans today are all but non-existent, the messages will aim to be persuasive and captivating in only a few sentences.

*Twitter:* Because users are generally between 13 and 49, and skew towards the younger ages, this platform will be used to target the primary audience. Over 50% of Twitter users have some university education, therefore the content will be tailored to this education level, while not alienating other users.9 The messages disseminated to the primary audience via Twitter will largely mirror the “And, But, Therefore” narrative statements discussed above. This platform will also use short video content, discussed and demonstrated in the Instagram section below.

*Instagram:* This platform skews even more heavily towards the young generations; nearly 65% of users are under the age of 35.10 This visual nature of this platform will be use to share images and videos about people and families affected by Lp(a), including the *Prevention* and *I wish I knew* themes. An example of the *Prevention* theme is provided in Appendix B. Using the “stories” feature of Instagram, patient partners will also provide “confessional”-style videos of them discussing their journeys and how their diagnosis changed their lives. While recency is only one part of the Instagram algorithm, posts will be scheduled for 10 AM and 4 PM to maximize engagement.11

*Facebook:* While this platform skews towards an older demographic, people age 25–34 were Facebook’s largest user group in Canada in 2019.12 Therefore, the strategy for this platform will target both the primary and secondary audiences. Because it supports longer written pieces, Facebook will be used to share blog-style stories and weekly profiles of people affected by Lp(a). Importantly, as only the top portion of content is visible in the news feed, the first 250 characters of the post will be written to grab people’s attention (arouse) so they want to expand and read on (fulfill). Videos, discussed above, will also be shared. Posts will be limited to a maximum of 4 per week and timed during peak usage, which is midweek between 1 and 3 PM.13

Although the majority of people are on at least one of these platforms, this plan will also benefit from a snowball effect whereby friends and family will be compelled to pass on the information they have learned. An important part of this strategy will be to recruit patient partners and families to be included in the social media campaign. This will be done via outreach to the Healthy Heart clinics around the province. These clinics treat many patients with dyslipidemias and focus on preventative measures for CVD. In particular, the Heart Centre at St. Paul’s Hospital in Vancouver is the main provincial clinic for people in British Columbia with inherited disorders of cholesterol. Patient partners will also be recruited via the numerous patient-oriented care and research organizations, including the BC SUPPORT Unit, The Michael Smith Foundation for Health Research, and Patient Voices BC.

Depending on the partners recruited, a secondary medium for this campaign could be podcasting. This would involve a patient partner discussing their experience with Lp(a) and talking about getting tested. Existing podcasts where this idea could be pitched include The Dose (CBC), White Coat Black Art (CBC), and Brain Buzz. Overall, podcasting could be rolled out after the social media campaign has gained traction and will be useful in generating interest, reaching audiences that are not on social media, and generating content for the social media campaign.

Success of the social media campaign will be tracked using analytics within each platform as well as Google analytics through the campaign website. These can be used to track demographic information about those who engaged with the content, those who shared it, and those who clicked through to learn more about testing. Amplification from partner organizations will also be tracked. As it is important to maintain momentum in this campaign, the overall goal will be to sustain, or improve, monthly engagement numbers for the duration of the campaign. The social media campaign will be sustained as long as it is continues to engage the public.

# Aim 2: Physician Awareness

## Mission

The goal of this arm of the communication campaign is to increase awareness of Lp(a) among family physicians to ultimately increase testing rates. This will be achieved through working towards addition of Lp(a) testing recommendations to provincial cardiovascular screening guidelines. Secondly, this plan will describe preliminary details about physician outreach that could be coordinated through the BC College of Family Physicians. However, the success is contingent on the amendment of the guidelines therefore the majority of the remaining document will focus on that aim.

One clear way to measure the success of this campaign is whether or not the recommendations of this campaign are adopted into the guidelines. Beyond this dichotomous measurement, analysis of the impact of this campaign will require a long-term perspective because it aims to change practice within the medical community — a change in practice would not be expected to change testing numbers overnight. The goal of this arm is to increase testing numbers over the two-year period following amendment of the guidelines to a greater extent than the previous two-year period increase. LifeLabs monthly data from Aim 1 could be used to provide preliminary feedback about the success of the campaign. Finally, a survey of physician’s awareness will be conducted via the College before and 1 year following amendment.

*Audience* The primary audience is the provincial Medical Services Commission, which manages the Medical Services Plan (MSP) on behalf of the provincial government and oversees the Guidelines and Protocol Advisory Committee (GPAC). The Commission was chosen as the target because it has equal representation from Doctors of BC, the provincial government, and the public. Representation from the government would facilitate an increase in billing for this testing service and allow the funders to negotiate a decreased price with LifeLabs, based on a higher volume of testing. However, should the Commission decide against modification of the guidelines, but still consider Lp(a) to be a cause worthy of their support, it has representation from the relevant knowledge user groups (doctors and the public) to facilitate and support development of continuing education materials or the public awareness campaign.

The ultimate users of this Lp(a) information is family physicians in B.C. who treat patients who may have Lp(a) and could benefit from testing to confirm high Lp(a) levels. While this group is not a direct audience of the main part of the communication strategy, it is worth considering how a family physician would change their practice based on information about Lp(a).

*Individual Doctors: Precaution Adoption Process Model* While doctors themselves are not the direct audience, It is important to consider how this information would affect practice on an individual basis. The PAPM is also useful for this task. The stages for this audience would be: Stage 1: Never heard of Lp(a); Stage 2: Heard of Lp(a) but never thought to test patients; Stage 3: Undecided about implementing testing; Stage 4/5: Decide to implement testing or not; Stage 6: Implement testing on appropriate patients. Stage 7: Maintenance: Continue to counsel patients based on their Lp(a) results and actively seek out new materials and future treatments for Lp(a). Addition of Lp(a) to cardiovascular guidelines will move physicians through stages 1 to 4, and towards stages 6 and 7. This plan provides preliminary details on physician outreach through the College as a way to facilitate their movement through Stage 5, 6, and 7. In other words, it will also solidify the importance of Lp(a) and facilitate the ongoing use of this screening in their practice and continued counselling of patients after they receive their test results.

### *Other Considerations*

*Ethics:* The primary ethical consideration for this arm is the potential negative effects of the misalignment between public outreach and changes to the guidelines. That is, if the guidelines take time to change and therefore physicians take time to change their practice, it may be unethical to send the public to their doctors before that change has occurred. However, the decision was made to launch these efforts simultaneously for a few reasons. Firstly, given the magnitude of the potential morbidity and mortality that could be avoided by increasing testing, any attempt to do so should be launched as soon as possible. Secondly, testing numbers in the province have been increasing year over year and there are resources available to physicians about this risk factor. Therefore, physicians could and should know about Lp(a) already. Finally, although adding Lp(a) to the guidelines is important, there is a possibility that the Commission will decide against doing so. With that in mind, it was decided that the plan should not hinge on the guidelines change. If the guidelines are not changed, the public outreach strategy can be modified to include more robust information about how to talk to your doctor.

*Barriers:* The barriers to change faced by Commission are likely to be organizational and political in nature. That is, they may not be willing to undertake the work required to amend the guidelines, there may be other initiatives that are more important at this time, or they may not want to amend the guidelines for political reasons. These barriers can be addressed by maintaining the messaging and highlighting the avoidable morbidity, mortality, and cost that this decision is based on. Furthermore, the spokesperson can engage in priority setting with the Commission to understand how changing guidelines fit within its mandate. It may be the case that efforts will be better spent to communicate directly with physicians through the College, or via Doctors of BC.

Barriers for physicians include time and scope of practice. They may feel that adding Lp(a) testing, and interpretation, to their list of things to do is not worth the time. They may also feel that this risk factor is better dealt with by a specialist. Addressing these barriers, and identifying others, will be done in collaboration with the College.

## Message

*How to Change the Guidelines* Sandman’s Hazard Outrage framework is useful in thinking about the strategy for this communication plan. The hazard posed by Lp(a) on the population is high while the outrage about this hazard is quite low — there have been no significant efforts to address this risk factor in province. This inaction could either be due to decision-makers being unaware of or ambivalent about Lp(a). In either case, the strategy will be to increase outrage as a way to encourage the Commission to amend the guidelines.

As with the public communication, this portion of the communication strategy will employ the use of narrative and “And, But, Therefore”. However, the emotions that it will target are different from the public narrative. This strategy will focus less on individual stories and more on “what the future could be”. The commission wants the population of the province to be healthy without spending a fortune to achieve it; it strives for a balance between effectiveness and spending. Therefore, the narrative structure will highlight the prevalence of high Lp(a) in the population and the potential health and cost benefits of early intervention to prevent related morbidity and mortality. The arouse and fulfill paradigm will also be followed whereby the narrative will begin with captivating figures about the impact of Lp(a) in the province and end with the steps that can be taken to mitigate that impact.

1 in 5 British Columbians are at risk of dying at a young age due to Lp(a) **AND** this genetic risk factor causes significant morbidity and mortality across the medical system **BUT** if we test where appropriate we can take steps to reduce the risk in the population **THEREFORE** its worth formally adding evidence-based Lp(a) recommendations to provincial guidelines.

While the majority of the communication with the Commission will be informational in nature, some content will follow the *Prevention* theme. This will demonstrate the morbidity, mortality, and costs that have already been avoided by some physicians’ and patients’ awareness of Lp(a).

## Medium

*In-person Meeting* The primary medium through which this message will be communicated is face-to-face communication with the Medical Services Commission in the form of a pitch. That is, this meeting will focus on persuading the Commission to act based on the evidence being delivered. While the public strategy is also “pitching” action in a way, it is more focused on empowering people to take control of their current and future health. The pitch to the Commission is purely about convincing them that Lp(a) is important enough to add to the guidelines. One of the most important aspects of this pitching process will be to identify and collaborate with a strong spokesperson. This person will be the one leading the face-to-face meeting and therefore will be speaking on behalf of the communication campaign. Several potential spokespeople have been identified, two of which are:



Dr. Liam Brunham is an Assistant Professor in the UBC Department of Medicine and a physician at the Healthy Heart Clinic at St. Paul’s. His on research focuses on genetic aspects of cholesterol levels and CVD.



Dr. Jiri Frohlich is a UBC Professor Emeritus of Pathology & Laboratory Medicine and Director of the Clinical Trials Division of the St. Paul’s Healthy Heart Program. His research focuses on lipoprotein metabolism and pathology of atherosclerosis.

Not only does ceding this responsibility to a top expert in the field demonstrate that this is a very important topic, it will ensure that the message is delivered by somebody with credibility and who works within the system. This is distinct from an external, unknown individual coming to the Commission and telling them how to do their job. This meeting will be supported by written materials which will expand on the topic and will be produced in conjunction with Heart and Stroke Foundation, the patient partners, and the spokesperson. The spokesperson may also be used to discuss this campaign on a number of podcasts, as discussed for the public arm.

*Looking Ahead: Physician Outreach* Following amendment of the guidelines or recommendations from the Commission, outreach to family physicians in the province could be done through coordination with the BC College of Family Physicians. The College has regular communications with its members and is therefore in a position to disseminate important information to them. Information about practice change related to Lp(a) could be disseminated, and a physician portal could be added to the campaign website. This outreach via the College could precipitate and support their development of continuing education to support their members.

# Evaluation Plan

Evaluation of this campaign has been discussed throughout this document but is summarized below. Annual testing data are from the province’s website, monthly data will be gathered through partnership with LifeLabs. Evaluation will be conducted as data become available.

Goal: Number of Lp(a) tests completed in the five-year period following the launch of the communication plan more than doubles compared to preceding five-year period.

Subgoal #1: Number of Lp(a) tests completed over the first 6 months following social media campaign launch, compared to the 6 months preceding the launch, is above and beyond what has been observed in that time period historically.

Subgoal #2: Number of Lp(a) tests completed in the two-year period following the amendment of the guidelines increases to a greater extent than historical two-year trend.

Subgoal #3: Awareness of Lp(a) among physicians increases at 1 year following amendment of the guidelines compared to immediately before amendment. Via survey through College.

# Implementation Plan

The various partnerships important to this plan have already been identified. The timing for the development and implementation of this communication plan are as follows:

Months 0-6: Secure partnership with Heart and Stroke Foundation. Identify and secure patient partners and spokesperson. Develop relationship with LifeLabs and the College.

Months 3-9: Develop and finalize website and social media content. Arrange meeting with the Commission. Develop and finalize meeting materials.

Months 9-15: Launch of social media campaign. Meeting with the Commission. Evaluation of Subgoal #1. Ongoing process evaluation of messaging.

Months 16+: Evaluation of Subgoals #2 and #3 at 12 and 24 months following amendment of guidelines. Evaluation of primary goal at 5 years post-launch (69 months).

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# Appendix A

## Precaution Adoption Process Model Schematic

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**Public Audience**

* Stage 1: Never heard of Lp(a)
* Stage 2: Heard of Lp(a) but not considering testing
* Stage 3: Undecided about getting tested
* Stage 4/5: Decide to get ask doctor about getting tested, or not
* Stage 6: Talk to doctor about getting tested
* Stage 7: Return to doctor to ask for testing

**Physician Audience**

* Stage 1: Never heard of Lp(a)
* Stage 2: Heard of Lp(a) but never thought to test patients
* Stage 3: Undecided about implementing testing
* Stage 4/5: Decide to implement testing or not
* Stage 6: Implement testing on appropriate patients
* Stage 7: Maintenance: Continue to counsel patients based on their Lp(a) results and actively seek out new materials and future treatments for Lp(a)

# Appendix B

## Mock Communication Product (Instagram Video)



**SCRIPT ON NEXT PAGE**

**Video script:**

**Patient Partner**

*[Video: Stretcher rushed down hospital hallway]*

“I was minutes away from a heart attack. It came out of nowhere”

*[Moving images of marathon finish, medal etc.]*

“I’d always thought that because I was young and in good shape, heart health wasn’t something I had to worry about.”

*[Video: Old family footage]*

“My grandpa and one of my uncles died from heart attacks in their forties but I assumed it was because they didn’t take care of themselves. Little did I know that a simple blood test could have helped prevent their deaths, and my near-miss.”

*[Video: Current footage of exercising again, healthy family dinner]*

“Now that I’m aware of my risk, I’m extra careful with how I treat my heart and I get regular check-ups with my cardiologist.”

*[Video: Current day speaking to camera, with children]*

“I was one of the lucky ones. Don’t take the same chance I did. Talk to your doctor about getting tested for lipoprotein(a).”

**Narrator**

*[Branding images, with Heart and Stroke foundation]*

“If you have a family history of early cardiovascular disease, heart attack, or stroke, you could be at risk too. Talk to your doctor today.”

[link in bio etc.]