EVALUATION OF COMMUNITY VETERINARY OUTREACH (CVO) ONE HEALTH CLINICS IN VANCOUVER, BRITISH COLUMBIA, CANADA

by

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Abstract

In Canada, it is estimated that 20% of people are experiencing housing insecurity and homelessness are pet owners. It has been reported that the bond between companion animals and this population is typically stronger than the general population. This bond is associated with numerous health benefits and can act as a motivator for changes in healthy behavior, yet vulnerably housed pet owners also experience increased barriers to accessing healthcare services for both themselves and their pets. The registered charity Community Veterinary Outreach (CVO) has the mandate to mitigate these structural and socioeconomical barriers by coordinating and delivering "One Health" clinics in the community. One Health clinics offer integrated veterinary and human health services, which aim to improve public health and build on the health benefits of this human-animal relationship. CVO has been operating in Vancouver, British Columbia, Canada since 2016, and anecdotal data demonstrates the success of the program. However, to date, no formal program evaluation has been completed for Vancouver's One Health clinics.

The aim of this project was to evaluate the CVO Vancouver One Health Clinics and its capacity to connect marginalized community members to healthcare services and promote public health, through the use of the CDC Program Evaluation Framework. Findings from this study demonstrate that CVO Vancouver One Health Clinics achieve their short, intermediate, and long term outcomes by promoting access to care and improving the health of vulnerably housed people and their pets.

Lay Summary

In Canada, it is estimated that 20% of people who are experiencing housing instability or homelessness have companion animals. Companion animals are domesticated species that people use for company, enjoyment, and psychological support. Research demonstrates that the relationship between companion animals and people experiencing unstable housing is typically stronger than the general population. While there are benefits from this relationship, increased challenges with access to healthcare and social services also arise from pet-ownership. The registered charity Community Veterinary Outreach (CVO) aims to decrease these challenges through the delivery of "One Health" clinics. One Health clinics offer combined veterinary and human health services. This research study evaluated CVO Vancouver One Health Clinics and its findings demonstrate their ability to promote access to care and improve the health of its vulnerably housed people and their pets.

Preface

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List of Abbreviations

ANSI: American National Standards Institute

BCSPCA: British Columbia Society of Protection of Cruelty to Animals

BREB: Behavioral Research Ethics Board

CDC: Center for Disease Control

CVO: Community Veterinary Outreach

PFHAF: Paws for Hope Animal Foundation

UBC: University of British Columbia

VHS: Vancouver Humane Society

WHO: World Health Organization

Glossary

Access: is defined as the availability, usability, and appropriateness of services for the individual, and the opportunity for individuals to use the services with ease (CVO, 2020; Levesque, Harris & Russell, 2013)

Accuracy: the evaluation will disclose suitable information about the components that determine value of the program being evaluated (CDC, 2011)

Activities: what takes place with the resources (CDC, 2011)

Community Veterinary Outreach: A Canadian and USA registered charity operating under the one health model to address health inequities for populations who are pet owners through outreach and pro-bono clinics (Jordan & Lem, 2014; Panning et al, 2016).

Confirmability: is when the other three criteria of trustworthiness (credibility, transferability, and dependability) are all attained (Guba & Lincoln, 1989).

Credibility: the accuracy of the researcher's representation of the qualitative data (Tobin & Begley, 2004).

CVO full-service clinic: pets receive preventative veterinary care, including a physical examination, core vaccinations, and treatment for parasites and other infectious agents (CVO, 2020)

CVO pet fairs: fairs offer animal care services that do not typically fall under the veterinary scope of practice, including grooming, nail trims, and permanent identification implantation (microchip) (CVO, 2020)

CVO One Health Clinics: offer free integrated healthcare services from human health and animal care professionals to homeless and vulnerably housed populations (CVO, 2020; Jordan & Lem, 2014; Panning et al, 2016)

Dependability: is when the researcher is able to examine how the researcher came to the findings of the study (Lincoln & Guba, 1985).

Feasibility**:** the evaluation will be attainable, practical, diplomatic, and economical (CDC, 2011)

Inputs: the resources needed to implement the program activities (CDC, 2011)

Logic Model: model outlining the inputs required for the program activities, and the associated outputs and outcomes with the program (CDC, 2011)

One Health: the interconnection of human and animal health within a shared environment (CDC, 2018).

Outcomes: are the changes that occur because of the program activities and outputs (CDC, 2011)

Short-term outcomes: 12 weeks

Intermediate term outcomes: 6 months

Long-term outcomes: 12 months

Outputs: the program deliverables that result from the activities (CDC, 2011)

Propriety: the evaluation will be conducted lawfully, ethically and consider the welfare of both those involved in the evaluation and affected by its results (CDC, 2011).

Success*:* is measured in client engagement with human healthcare professionals, direct uptake in offered human health services (i.e. primary care or dental hygiene treatment), receptiveness to mental health and therapeutic support, knowledge of available community services, and referrals (CVO, 2020; Levesque, Harris & Russell, 2013)

Transferability: the generalizability of the findings of the study (Tobin & Begley, 2004).

Utility: the evaluation will used as guide and met information needs for user (CDC, 2011)

Vulnerably housed: describes the condition where an individual or family may be experiencing homelessness or lacks secure or suitable housing (Homeless Hub, 2019).

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Chapter 1: Introduction

1.1 Background

In Canada, it is estimated that more than 250,000 people are experiencing housing insecurity and barriers to healthcare and social services (Gaetz, Dej, Richter, Redman, 2018; Cambell, Gibson, & Thurston, 2015). “Vulnerably housed” describes the condition where an individual or family may be experiencing homelessness or lacks secure or suitable housing (Homeless Hub, 2019). This population commonly comprises those struggling with mental illnesses and substance use, survivors of domestic abuse, and youth (Gaetz, Dej, Richter, Redman, 2016; Cambell, Gibson, & Thurston, 2015). Furthermore, of this population it is estimated that approximately 20% are pet owners (Cronley et al., 2009; Irvine, Kahl, & Smith, 2012; Rhoades, Winetrobe, & Rice, 2015). For these individuals, the pet is commonly described as one’s “support”, “protector”, “social facilitator”, and “family” (Lem 2019; Lem, Coe, Haley, Stone, & O'Grady, 2016; Irvine, Kahl & Smite, 2012; Rhoades, Winetrobe & Rice, 2015; Taylor, et al., 2004). It has been reported that the attachment between people who are vulnerably housed and their companion animals is often stronger than that of the general population (Lem, 2016; Kidd & Kidd, 1994). For individuals who have lacked secure attachments and healthy social connections the unconditional love that companion animals provide is all that more significant (Irvine, 2013a; Maharaj, 2016; Rew, 2000; Stevenson, Fitzgerald, & Barrett, 2018; Sundin & Baguley, 2015).

The literature reports that the relationship with a companion animal may act as a protective factor against loneliness, depression, and anxiety, as pets provides owners with a sense of purpose, companionship and unconditional love without judgement (Bender et al., 2007; Howe & Easterbrook, 2018; Irvine, 2019a; Labrecque & Walsh, 2011; Lem et al, 2013; Rew, 2000;

Slatter, Lyod, & King, 2012; Stevenson et al, 2018; Taylor, 2006; Thompson et al., 2006). In some cases, the psychological benefits of the relationship with a companion animal leads to a reduction in substance-use, depression, and anxiety (Lem, 2016, Irvine 2013a, Rhoades, Winetrobe, & Rice, 2015). In other cases, pets may act as a catalyst for positive changes in healthy behaviours (Lem, 2016, Irvine 2013a). For example, pet-ownership provides people with new responsibilities, structure, and a reason to get out of bed each day (Lem, 2016, Irvine 2013a). In other incidents, individuals may adapt to a more active lifestyle because of the physical requirements of their pet (Panning et al, 2016); or be motivated to quit smoking upon learning the harm of second-hand smoke on their companion animal (Milberger, Davis & Holm, 2009), These reported benefits are considered an outcome of "one health".

1.2 Theoretical Framework

"One health" is an emerging concept that is gaining traction in the fields of epidemiology, human medicine, and veterinary care (United States Centre for Disease Control and Prevention (CDC), 2018). The concept of one health is defined as the interconnection of human and animal health within a shared environment (CDC, 2018). The goal of a one health approach is to improve public health via research, program development, and legislation (World Health Organization (WHO), 2020). The application of one health is achieved by addressing human, animal, and environmental health concerns as they intersect, through interdisciplinary collaboration (WHO, 2020).

1.3 Origin of Theory

The concept of one health was derived from the term “one medicine”, which was coined in the 20th century by Calvin Schwabe (Zinsstag et al., 2011). The term one medicine originated in recognition that there is no difference between the paradigms of human and veterinary medicine (Zinsstag, Schelling, Waltner-Toews & Tanner 2011). This term was later expanded to one health to include all intersecting considerations between human and animals, beyond biomedical approaches (Zinsstag et al., 2011). Following the work of Schwabe, the father of modern pathology, Rudolph Virchow, highlighted that there should be no dividing lines between human and animal medicine and that significant benefits arise when knowledge is shared between the two disciplines (Zinsstag et al., 2011).

1.4 Theoretical Application

The implementation of one health into the fields of human medicine and population public health is achieved by understanding that human health is not an isolated entity and considering the context in which health is arising (WHO, 2020). This is attained by accounting for the influence of the environment and animals on human health (WHO, 2020). Application of one health is a multi-sectoral and collaborative approach to address health concerns shared by people, animals, and their environment (CDC, 2018). Examples of a one health approach include addressing public health threats such as zoonotic disease, antimicrobial resistance, food safety, environmental contamination, and vector-borne disease (CDC, 2018). A one health approach can also be implemented into the fields of mental health and substance use, social work, and occupational therapy (CDC, 2018). For vulnerable populations, particularly those experiencing housing-insecurity with a companion animal, research demonstrates that a one health approach to

care has potential to address the complex care needs of this population (Jordan & Lem, 2014; Panning et al, 2016). A one health approach can do so by mitigating barriers to existing care services and building on the significant health benefits of the human-animal bond amongst those who are marginalized by accepting (CVO, 2020; Jordan & Lem, 2014; Panning et al, 2016).

1.5 Community Veterinary Outreach

Since 2003, the charitable organization Community Veterinary Outreach (CVO) has been operating under the one health model to address health inequities for populations who are pet owners through outreach and pro-bono clinics (Jordan & Lem, 2014; Panning et al, 2016). CVO's mandate is to improve the health outcomes of homeless and vulnerably housed communities through the provision of their community based "One Health Clinics" (CVO, 2020; Jordan & Lem, 2014; Panning et al, 2016). CVO One Health clinics offer free integrated healthcare services from human health and animal care professionals to homeless and vulnerably housed populations (CVO, 2020; Jordan & Lem, 2014; Panning et al, 2016). To date, CVO outreach events are present in eight cities throughout Canada and in Kansas City, United States (CVO, 2019).

As of December 2016, CVO One Health clinics have been operating in Vancouver, British Columbia (CVO, 2019), an epicenter for issues concerning homelessness, substance-use, and mental health (Macdonald, 2017). The CVO One Health model has demonstrated anecdotal evidence of success in Vancouver given the numbers of clinic attendees, uptake in both veterinary and human health care services, participant engagement, and positive feedback from their exit interviews (BCNU, 2017).

1.5.1 Program Structure

CVO One Health clinics operate under two key models: 1) full services clinics and 2) pet fairs (CVO, 2020). At full-service clinics, pets receive preventative veterinary care, including a physical examination, core vaccinations, and treatment for parasites and other infectious agents (CVO, 2020). Alternatively, pet fairs offer animal care services that do not typically fall under the veterinary scope of practice, including grooming, nail trims, and permanent identification implantation (microchip) (CVO, 2020). Both CVO clinic models offer the owners access to spay and neuter referrals, pet food, animal care supplies, and education on pet health, nutrition, dental care, and animal behaviour, along with any referrals for further veterinary treatment (CVO, 2020; Jordan & Lem, 2014; Panning et al, 2016). The goal of the provided one health education is not only to improve the health of the companion animal, but to support the health of both the animal and person as they intersect (CVO, 2020; Jordan & Lem, 2014; Panning et al, 2016). Through principles of motivational interviewing and the amplification of health messaging, the veterinarian has the unique ability to improve the health of people and their animals (Lem, 2019).

At CVO clinics, the veterinarian and other animal care volunteers are positioned to directly facilitate the connection between clients and the appropriate human health provider (CVO, 2020; Jordan & Lem, 2014; Panning et al, 2016). The team of human health professionals present at CVO outreach clinics include nurses, nurse practitioners, dental hygienists, pharmacists, social workers, and health care students (Lem, 2019). This team of healthcare professionals is then prepared to offer services including immunizations (COVID-19, influenza, Hepatitis C), primary care services (wound care, blood pressure checks), sexually transmitted infections (STI) testing, harm reduction (take home naloxone kits, injection supplies), dental

hygiene care (caries and oral cancer screening, cleaning, and fluoride treatment) and referrals to secondary, tertiary or emergency services (CVO, 2020). In Vancouver, CVO has partnered with organizations including Paws for Hope Animal Foundation (PFHAF) for providing veterinary care at One Health Clinics, and the British Columbia Society for the Prevention of Cruelty to Animals (BCSPCA), and Vancouver Humane Society (VHS) for supporting any follow-up veterinary care.

1.5.2 CVO Clinic Objectives:

The goal of CVO clinics is to promote health and wellness through access to integrated health services and building on the reported benefits of the human-animal bond. Data is collected at each clinic and success is then evaluated.

- *Access* is defined as the availability, usability, and appropriateness of services for the individual, and the opportunity for individuals to use the services with ease (CVO, 2020; Levesque, Harris & Russell, 2013).
- S*uccess* is measured in client engagement with human healthcare professionals, direct uptake in offered human health services (i.e. primary care or dental hygiene treatment), receptiveness to mental health and therapeutic support, knowledge of available community services, and referrals (CVO, 2020; Levesque, Harris & Russell, 2013)

1.6 Literature Review

From the literature, other regional program evaluations have been conducted by CVO and have been used to assess regional programs and improve service delivery, however, no formal evaluation on CVO Vancouver One Health Clinics has been completed. There is separate

literature published on “vulnerably housed populations and companion animals”, “Community Veterinary Outreach”, and “one health”. The published literature on these three areas were examined to identify the knowledge gap and develop the research questions for future studies.

1.6.1 Systematic Search

The initial search was kept broad and conducted to review all relevant literature in the CINAHL, PubMed, and Google Scholar on the research topic. The search teams “One Health” and “vulnerably housed populations” were used to generate the search. This search did not generate literature relevant to the area of research, so the systematic search was broadened using search terms with three main themes (vulnerably housed populations (homeless), pets, and health). The search was narrowed by using search terms “AND” and “OR”. Exclusion criteria to limit literature published in the last 15 years was applied. Even without implementing the time sensitive criterion, most of the related literature retrieved from the databases was published in the last 5 years. From the systematic search, it was found that the area of “One Health” with respect to vulnerably housed populations is a developing area where further research is required.

The output from each search engine and the literature review is included in the three search tables below.

1.6.2 Systematic Search Output

Table 1

Output generated from CINAHL database

Search #	Search Term/Terms	Number of Articles	Number Chosen
S1	"One Health"	1247	Content of interest not generated through search
S2	Marginalized population OR Homeless OR vulnerably housed AND One Health	144	Content of interest not generated through search
S3	Marginalized populations OR Homeless AND "One Health"	4	Content of interest not generated through search
S4	Marginalized population OR Homeless or vulnerably housed AND Pets or companion animals	18	8
S5	S4 AND One Health	1	1
S6	S4 AND primary OR preventative care	0	
S7	S4 AND health	9	7
S8	S5 AND wellness	11	6

Table 2

Output generated from PubMed database

Search #	Search Term/Terms	Number of Articles	Number Chosen
S1	"One Health"	5,290	Content of interest not generated through search
S2	Marginalized population OR Homeless OR vulnerably housed AND One Health	2402	Content of interest not generated through search
S3	Marginalized population OR Homeless OR vulnerably housed AND "One Health"	12	4
S4	Marginalized population OR Homeless or vulnerably housed AND Pets or companion animals	17,196	Content of interest narrowed through search
S5	S4 AND "One Health"	92	2
S6	Marginalized populations AND one health AND pets OR companion animals AND Primary care	166	6
S8	S5 AND wellness	11	2

Table 3

Output generated from Google Scholar

Search #	Search Term/Terms	Number of Articles	Number Chosen
S1	"One Health"	**343,000**	Content of interest not generated through search
S2	Marginalized population OR Homeless OR vulnerably housed AND One Health	37, 100	Content of interest not generated through search
S3	Marginalized population OR Homeless OR vulnerably housed AND "One Health"	872	4
S4	Marginalized population OR Homeless or vulnerably housed AND Pets or companion animals	1,480	15
S5	S4 AND "One Health"	74	13
S6	Marginalized populations AND one health AND pets OR companion animals AND Primary care	164	9
S8	S5 AND wellness	296	5
S9	"Community Veterinary Outreach"	48	22

1.7 Knowledge Gap

While the CVO One Health model demonstrates potential in connecting with marginalized populations improving public health, ongoing program evaluation is critical for program success, sustainability, and improvement (CDC, 2011).

1.8 Purpose of the Study

The purpose of this study was to evaluate the efficacy of the CVO Vancouver One Health Clinic model using the CDC Program Evaluation Framework. This evaluation was structured with the aim of answering the following research question:

Are the Vancouver CVO One Health Clinics effective in achieving its objectives of promoting health and wellness for clinic participants through access to integrated health services and building on the reported benefits of the human-animal bond?

Chapter 2: Evaluation Framework

2.1 CDC Program Evaluation Framework

This section reviews the steps of the Center for Disease Control program evaluation framework that have already been completed (i.e., Steps 1 and 2). The other steps of the framework are briefly described and will comprise the remainder of this study. The six steps to completing a program evaluation are depicted in Figure 4.0.

Table 4

Steps Involved in CDC Program Evaluation and the four-key standards

Step number	CDC Program Evaluation Step	Standards
1	Engage Stakeholders	Utility
2	Decribe the Prograom	Feasibility
3	Focus the Evaluation Design	Propriety
4	Gather Credible Evidence	Accuracy
5	Justify Conclusions	
5	Ensure use and share Lessons Learned	

Note: Table 4 was created using content from the Introduction to Program Evaluation for Public Health Programs: A Self-Study Guide (CDC, 2011)

2.2 Evaluation Standards

The CDC framework comprises standards for an effective evaluation for each step of the evaluation process (CDC, 2011). The standards are adopted from the Joint Committee on Educational Evaluation, which are approved by the American National Standards Institute (ANSI) and endorsed by the American Evaluation Association (Sanders, 1994). While there are more than 30 standards, the most important standards the CDC program evaluation include:

- **Utility:** the evaluation will used as guide and met information needs for user.
- **Feasibility:** the evaluation will be attainable, practical, diplomatic, and economical
- **Propriety:** the evaluation will be conducted lawfully, ethically and consider the welfare of both those involved in the evaluation and affected by its results.
- **Accuracy:** the evaluation will disclose suitable information about the components that determine value of the program being evaluated.

The standards help one choose amongst options presented in every step of the framework. The four standards will be referenced in each step of the evaluation with consultation with CVO stakeholder's community and academic partners (CDC, 2011).

2.3 Steps to CDC Program Evaluation

2.3.1 Step 1: Engage stakeholders

Stakeholders are the persons involved with implementing the program, people affected by the program or people who may use results of this evaluation (CDC, 2011). For CVO Vancouver One Health Clinics, the stakeholders are CVO Founder, CVO directors, volunteers, community, academic partners, One Health clinic participants and UBC healthcare students (Table 5)

Table 5

Identifying Key Stakeholders for CVO One Health Clinics

Outline of the stakeholders for CVO Vancouver One Health Clinics

Category	**Stakeholder**
Who is affected by the program?	-Vulnerably housed pet owners in Vancouver - Marginalized communities in Vancouver
Who is involved in the program operations?	-CVO Regional Directors - Paws for Hope Animal Foundation (PFHAF) - The British Columbia Society for the Protection of the Cruelty of Animals (BCSPCA) - The Vancouver Humane Society (VHS) -University of British Columbia (UBC) Community University Engagement Sustainability (CUES) - UBC School of Nursing - UBC School of Pharmaceutical Sciences -Funding Agencies
Who will use evaluation results?	-CVO Regional Directors and program coordinators - Funding Agencies -Community Partners -Local and national advocacy groups -UBC and other educational institutions

Table 6

Identifying Stakeholders- Who do we need to engage?

Outline of who we need to engage with identifying the stakeholders

Which of these are key stakeholders we need to engage?			
Increase credibility of our evaluation	**Implement the interventions that are central to this evaluation**	**Advocate for changes to institutionalize the evaluation findings**	**Fund/authorize the continuation or expansion of the program**
Clinic participants Community Associations	CVO Representatives who coordinate and direct events Community Partners that host clinics CVO volunteers that provide offered services at clinics	CVO Directors Advocacy and non-profit for groups DTES population Animal welfare groups (BCSPCA & PFHAF & VHS) Community Partners	Community partners Local Health Authorities Academic partners Private Industry Private donors Animal welfare groups

Refer to Appendices II for CDC Program Evaluation Framework Checklist and additional worksheet tables for Step 1.

The four standards have been considered in the first step for the program evaluation and are listed in the table below.

Table 7

Standards for Step 1: Engage Stakeholders

Application of the CDC Program Evaluation Framework Standards for Step 1

Standard	Question
Utility	**Who will use these results?** • CVO Directors • CVO Program coordinators and volunteers • Community partners • Academic partners • Funders
Feasibility	**How much time and effort can be devoted to stakeholder engagement?** A year long time frame of stakeholder engagement can be devoted to this evaluation
Propriety	**Which stakeholders need to be consulted to conduct an ethical evaluation, for example, to ensure we will identify negative as well as positive aspects of the program?** Clinic participants must be involved for the evaluation to be ethical
Accuracy	**How broadly do we need to engage stakeholders to paint an accurate picture of this program?** A qualitative descriptive design will be used to collect accurate information from stakeholders

2.3.2 Step 2: Describe the program

To describe the program theory and structure of the CVO Vancouver One Health clinics, a logic model was created for this study. A logic model provides a depiction of components of the program and their intended effects (CDC, 2011). The CVO logic model was developed in consultation with CVO key stakeholders (founder, directors, and program coordinators), along with academic partners who have expertise with developing logic models and performing program evaluations. The CVO One Health clinic logic model developed as a part of this study is shown in Table 2.4.

The CDC Program Evaluation Framework check list for step 2 was utilized in development of CVO One Health clinic logic model (refer to appendices II). The CDC Program Evaluation Framework check list for step 2 was to:

1. Gather information on the program, including but not limited to:
    a. Mission and vision
    b. Goals and objectives
    c. Current program descriptions from websites, peer-reviewed and grey literature
2. The program activities and outcomes are clarified with stakeholders to ensure:
        a. Appropriate classification
        b. No redundancy
        c. No major activities or outcomes are missing
3. To order the activities and outcomes sequentially
4. To ensure the activities and outcomes reflect their understanding of the program to authorize:
        a. The logical progression of activities and outcomes

b. To reaffirm the intended use of the logic model (i.e. assess implementation, assess effectiveness, performance measurement, strategic planning)

5. Review and affirm the elaborations of the logic model with stakeholders to ensure it accurately represents the program and the relationships among the components

The four standards have been considered in the second step for the program evaluation and are listed in the table below.

Table 8

Standards for Step 2: Describe the Program

Application of the CDC Program Evaluation Framework Standards for Step 2

Standard	Questions
Utility or adapt to a more active lifestyle because of the physical requirements of their pet (Panning et al, 2016)	**Thinking about how the model will be used, is the level of detail appropriate or is there too much or too little detail?** The model will be used to guide future Vancouver One Health clinics and CVO events in other regions **Are the program decisions/description intelligible to those who need to use it to make evaluation planning?** The program description is clear and comprehensive for those who need to use it to make evaluation planning
Feasibility	**Does the program description include at least some activities and outcomes that are in control of the program?** The program description includes activities that are in control of the program, such as interdisciplinary relationship that are pre-established, training sessions for volunteers and the delivery of One Health clinics promotes access to One Health services, education for volunteers and delivery of low barriers services through a strength-based approach
Propriety	**Is the evaluation complete and fair in assessing all aspects of the program, including its strengths and weaknesses?** The program evaluation will be completed by interviewing program participants to determine their perception of strengths and weaknesses of the program **Does the program description include enough detail to examine both strengths and weaknesses, and unintended as well as intended outcomes?** By collecting data from clinic participants, strengths, weaknesses, and intended as well as unintended outcomes will be examined
Accuracy	**Is the program description comprehensive?** The program description includes what goes on at all stages of a One Health Clinic from clinic preparation to delivery of services **Have you documented the context of the program so that likely influences on the program can be identified?** Context of the program has been documented under “moderators”

Table 9

Community Veterinary Outreach (CVO) Vancouver One Health Logic Model

CVO Vancouver Logic Model outlining the inputs required for the program activities, and the associated outputs and outcomes with the program.

INPUTS	ACTIVITIES	OUTPUTS	OUTCOMES		
			Short-term (12 weeks)	Intermediate term (6 months)	Long-term (12 months)
Funding Product sponsorship Community health Partners for referral Host agency providing Facilities for Clinics Academic Partnerships Volunteers (veterinary professionals, human health care professionals, students and community members) One Health leadership	**Prior to One Health Clinic** Create inter-professional and community partnerships Volunteer One Health Orientation and Training **One Health Community Clinic** Clients and their companion animals accepted on walk in and referral basis "One Health" education for clients by CVO volunteers Delivery of on-site ***animal care and veterinary services*** Delivery of on-site ***human health care services*** Referral to off-site health care service, as needed (i.e follow up primary and urgent care services)	**Prior to One Health Clinic** Community and inter-professional partnerships established 6 Training sessions completed for volunteers **One Health Community Clinic** Clients access 5-6 Community One Health Outreach Clinics 25-60 Clients per Clinics receive One Health Education 100% of companion animal receives preventative veterinary and animal care services 50-100% of participants receive on-site human health care services 30-100% of participants receive referrals to off-site secondary and tertiary health care	**Clinic Participants and their pets** Access One Health services Affirmation of socioeconomic and health challenges **Volunteers** Knowledge of factors contributing to ***SODH*** and homelessness Knowledge of One Health Model Knowledge and communication skills for supporting the unique needs and health risks of population **Community** Increased knowledge of One Health Delivery of low-barrier services and strength-based primary care programs	**Clinic Participants and their pets** Ongoing access to One Health Services Empowerment re: decision making surrounding health **Volunteers** Empathy and compassion for population Confidence in the delivery of One Health Services Enhanced strategies for supporting population **Community** Increased application of One Health model Early Intervention and health promotion	**Clinic Participants and their pets** Early intervention and increased access to primary care Improved health and wellness **Volunteers** Intrinsic motivation to support population Commitment to the One Health model Shift in delivery of services from medical model to client-centered and trauma-informed care **Community** Improved community health and wellness Reduction in emergency and acute care visits

Note: This report focuses on the evaluating short, intermediate, and long-term client outcomes at CVO Vancouver One Health Clinics. The square outline in the logic model highlights the focus of the study.

Logic Model Description

a. Inputs

In the logic model, the "inputs" are the resources needed to implement the program activities (CDC, 2011). For CVO One Health Clinics, the inputs consist of funding and product sponsorship, community and academic partnerships, host site, volunteers, students, and One Health leadership.

b. Activities

The "activities" are what takes place with the resources (CDC, 2011). At CVO One Health Clinics, these are the partnerships that are created and the training sessions that take place prior to the clinics, along with the services offered at the clinics.

c. Outputs

The "outputs" are the program deliverables that result from the activities (CDC, 2011). At CVO Vancouver One Health Clinics, the outputs are the number of training sessions completed, the number of clinics that took place, number of clinic participants (humans and animals), and number of participants who accessed one or more human health services.

d. Outcomes

"Outcomes" are the changes that occur because of the program activities and outputs (CDC, 2011). In the developed logic model, these outcomes have been broken down into three categories: short-term, intermediate, and long-term. These three outcome categories apply to clinic participants (and their pets), volunteers and the community.

External Factors

Outside the logic model, program "impact" and possible "moderators" are defined. The impact is the most distal or long-term outcome, and the moderators are the contextual factors that may support or hinder the success of the program outcomes (CDC, 2011). The impact and moderators of CVO One Health Clinics are outlined below.

I) Program Impact:

i) Reduction in socioeconomic inequities contributing health disparities

ii) Improved health and wellbeing of population

iii) Improved public health and safety, and community wellness

II) Program Moderators

i) (+/-) Competing or supporting partnerships (i.e. veterinary care teams, health authorities)

ii) (+/-) Socioeconomic factors and health status of target population

iii) (+/-) Social norms and conditions that either support or hinder reaching the target population, such as psychosocial history and previous experiences

iv) Potential barriers or supports that influence clinic attendance (i.e. weather, physical location of clinic, transportation, cultural and relation factors, political factors e.g. government policies/funding of public health and social services etc.)

III) Assumptions of the Program

The following assumptions were made in generating the logic model:

i) Funding will be secure throughout program timeline

ii) Community partners will support outreach program and provide an appropriate space to host clinics

iii) Students, veterinary and human health care professionals will volunteer at clinics

iv) The one health model will be adopted into practice by volunteers

v) Implementation of the one health model in practice will improve community health and wellness

2.3.3 Step 3: Focus the evaluation design

The evaluation table from the CDC framework includes the evaluation questions, indicators, etc. for each of the CVO Vancouver One Health Model stakeholder groups.
In the previous step, the entire program is described. Step 3 determines the focus of the evaluation. The evaluation plan measurement table and program evaluation standards are listed in the tables below. Refer to appendices II for step III standards checklist.

Table 10

Qualitative Evaluation Plan Table

Evaluation Plan Measurement Table from CDC Program Evaluation Framework Checklist for Step 3

Evaluation Questions	Indicators	Data Sources	Data Collection Methods
Short-term (12 weeks) How do CVO One Health clinics provide access to One Health services? How do CVO One Health clinics offer contextual awareness, respect and understanding of people's lived experience?	Themes from question responses	Clinic Participants	Semi-structured interviews
Intermediate term (6 months) How do CVO One Health provide ongoing access to One Health services? How do CVO One Health empower clients regarding decision making surrounding health?	Themes from question responses	Clinic Participants	Semi-structured interviews
Long-term (12 months) How do CVO One Health clinics offer early intervention and increased access to primary care? How do CVO One Health clinics support improved health and wellness?	Themes from question responses	Clinic Participants	Semi-structured interviews

Table 11

Standards for Step Focus the Evaluation Design

Application of the CDC Program Evaluation Framework Standards for Step 3

Standard	Questions
Utility	**What is the purpose of the evaluation?** The purpose of the evaluation is to determine short, intermediate, and long-term outcomes of CVO Vancouver One Health Clinics. **Who will use the evaluation results and how will they use them?** CVO directors will use the results to guide the program for One Health clinic development, expansion, and quality improvement **What special needs of any other stakeholders must be addressed?** Special consideration must be taken for clinic participants, as this is who the program is designed to support
Feasibility	**What is the program's stage of development?** Maintenance **How intense is the program?** CVO One Health Clinics are wide-ranging and multifaceted. In Vancouver, they occur as "pop-up" clinics, when funding and resources permit **How measurable are the components in the proposed focus?** Data will be collected from clinic participants to determine how attendance to a One Health Clinic supported access to primary healthcare services and influenced their health and wellbeing
Propriety	**Will the focus and design adequately detect any unintended consequences?** Data from clinic participants is collected to examine both intended and unintended outcomes of the program **Will the focus and design include examination of the experience of those who are affected by the program?** The experiences of clinic participants will be examined through semi-structured interviews
Accuracy	**Is the focus broad enough to detect success or failure of the program?** The evaluation focus on short, intermediate, and long-term outcomes which are either intended or unintended by the program **Is the design the right one to respond to the questions—such as attribution—that are being asked by stakeholders?** The design of the evaluation focused on short, intermediate, and long-term public health outcomes for clinic participants

2.3.4 Step 4: Gather credible evidence

Gathering credible evidence involves collecting information that stakeholders define as trustworthy and pertinent (CDC, 2011). Credibility of evidence may depend on sources of information, conditions of data collection, reliability of measurement, validity of interpretations, and quality control procedures (CDC, 2011). Information will be gathered from peer-reviewed and grey literature, clinical documentation, training logs, and via the use of semi-structured interviews with clinic participants. A list of the data information source as it relates to the logic model is listed in the table below. The "Registration information" from CVO Vancouver Clinics was used to capture the demographic information of clinic participants.

Table 12

Indicators for Evaluation Questions and Data Collection Methods

Indicators and Data Collection Method/Source

Logic Model Components in Evaluation Focus	Indicator or Evaluation Questions	Date Method(s)/Source(s)
Outreach	Vulnerably housed pet owners have been reached with relevant information	Logs of outreach encounters
Establishment of interprofessional partnerships	Organizations have agreed to partnership and determined each group's role and responsibilities	Partnership Memorandum of Understanding (MOU) Written documentation of agreement between partners
Training sessions for volunteers	One Health training models are completed for One Health Clinic volunteers	Training Logs
Clients and their companion animals accepted on walk in and referral basis at One Health Clinic	Vulnerably housed people and their pets attend Vancouver One Health Clinics	Registration Information
"One Health" education for clients by CVO volunteers	Healthcare volunteers provide education on the interconnection of health of companion animals and their people	Clinical documentation
Delivery of on-site animal care and veterinary services	Animal care volunteers provide pro-bono veterinary care to companion animals at One Health Clinic	Clinical documentation
Delivery of on-site human health care services	Human healthcare and dental professionals provide services to pet owners and other clinic attendees	Clinical documentation
Referral to off-site health care service, as needed (i.e. follow up primary and urgent care services)	Referral form has been completed for follow up services	Clinical documentation

The CDC Program Evaluation Framework have also been considered for Step 4 and are summarized in the table below.

Standards for Step 4 Gather Credible Evidence

Table 13

Application of the CDC Program Evaluation Framework Standards for Step 4

Standard	Questions
Utility	**Have key stakeholders who can assist with access to respondents been consulted?** Key stakeholders who can assist with access to respondent have been identified and included in the study **Are methods and sources appropriate to the intended purpose and use of the data?** The methods and sources are appropriate to evaluate the short, intermediate, and long-terms outcomes of the program **Have key stakeholders been consulted to ensure there are no preferences for or obstacles to selected methods or sources?** Stakeholders from CVO, UBC, clients and community partners of the program have been identified to ensure there are no preferences for or obstacles to selected methods or sources **Are there specific methods or sources that will enhance the credibility of the data with key users and stakeholders?** Consultation with CVO, academic and community partners will enhance credibility of research design and data collection from clients
Feasibility	**Can the data methods and sources be implemented within the time and budget for the project?** Data methods and sources will be implemented within the time and budget for the project **Does the evaluation team have the expertise to implement the chosen methods?** The evaluation team is a combination of experts with CVO program, program evaluation and qualitative research design

	Are the methods and sources consistent with the culture and characteristics of the respondents, such as language and literacy level? The interview questions were reviewed by the research team to ensure the language and literacy level is appropriate for research participants **Are logistics and protocols realistic given the time and resources that can be devoted to data collection?** Logistics and protocols are realistic given the time and resources that can be devoted to data collection
Propriety	**Will data collection be unduly disruptive?** Data collection took place during April and May 2021 **Are there issues of safety of respondents or confidentiality that must be addressed?** UBC BREB approved this study **Are the methods and sources appropriate to the culture and characteristics of the respondents—will they understand what they are being asked** CVO and academic stakeholders reviewed methods and sources to ensure appropriateness for study participants
Accuracy	**Are appropriate QA procedures in place to ensure quality of data collection?** As a qualitative descriptive design **Are enough data being collected—i.e., to support chosen confidence levels or statistical power?** A convenience sample of 9 participants has been recruited to ensure rich data collection **Are methods and sources consistent with the nature of the problem, the sensitivity of the issue, and the knowledge level of the respondents?** Yes- approved by the thesis committee.

2.3.5 Step 5: Justify conclusions

This step entails generating deductions about the program based on the data, with consultation of stakeholders and evaluation standards (CDC, 2018). Questions used for justifying conclusions are listed in the table below.

Table 14

Questions and Responses used for guiding Step 5

Question	**Response**
Who will analyze the data (and who will coordinate this effort)?	Jessamine, with assistance from supervisor, MacPhee
How will data be analyzed and displayed?	Qualitative, thematic coding
Against what standards will you compare your interpretations in forming your judgments?	Qualitative methods standards for rigor
Who will be involved in making interpretations and judgments and what process will be employed?	Jessamine and thesis committee
How will you deal with conflicting interpretations and judgments?	Conflicts with data interpretation will be resolved through discussions with committee members
Are your results similar to what you expected? If not, why do you think they are different?	The following questions pertain to considerations of data findings are coding and interpretation are completed
Are there alternative explanations for your result?	Yes, the are alternative explanation for the results
How do your results compare with those of similar programs?	The results are consistent and expand on previous studies on the CVO One Health model
What are the limitations of your data analysis and interpretation process (e.g., potential biases, generalizability of results, reliability, and validity)?	Limitations of the data analysis are consistent with limitations of qualitative research. Potential biases arise due to the study being conducted during COVID-19 pandemic
If you used multiple indicators to answer the same evaluation question, did you get similar results?	Results from analysis were reviewed with committee members to promote creditability of the results
Will others interpret the findings in an appropriate manner?	Data analysis was independently completed by both Jessamine and MacPhee to support confirmability of the results

The CDC Program Evaluation Framework has also been considered for Step 5 and is summarized in the table below. A checklist for Step 5 and additional tables from CDC Program Evaluation Worksheets are included in Appendices I.

Standards for Step 5: Ensure Use and Share Lessons Learned

Table 15

Application of the CDC Program Evaluation Framework Standards for Step 5

Standard	**Questions**
Utility	**Have you carefully described the perspectives, procedures, and rationale used to interpret the findings?** Perspectives, procedures and rationale used to interpret the findings are described in the methodology, analysis, results and discussion sections below **Have stakeholders considered different approaches for interpreting the findings?** Different approaches for interpreting findings have been considered and discussed with academic and community stakeholders. Data analysis was independently completed by both MacPhee and Jessamine to consider different approaches for interpreting the findings
Feasibility	**Is the approach to analysis and interpretation appropriate to the level of expertise and resources?** The approach to analysis and interpretation is appropriate to the level of expertise and resources
Propriety	**Have the standards and values of those less powerful or those most affected by the program been considered in determining standards for success?** The standards and values of those less powerful and most affected by the program have been considered by interviewing clinic participants. To evaluate the program and determine standards for success, clinic participants were asked to provide their perspectives regarding short, intermediate and long term outcomes of CVO Vancouver One Health clinics.
Accuracy	**Can you explicitly justify your conclusions?** Conclusions about the program can be explicitly justified, as stakeholders were consulted through the process of data analysis and deduction to ensure the conclusions accurately reflect the data. **Are the conclusions fully understandable to stakeholders?** The conclusions have been communicated with stakeholders throughout their developments to ensure they are clear, understandable, and accurate. Communication avenues with stakeholders have included in-person meetings, online video call, and email to confirm that the results are understandable to stakeholders.

2.3.6 Step 6: Ensure use and share lesson learned

The final step of the CDC Program Evaluation framework includes the following three steps: 1) informing stakeholders of the evaluation procedures and findings, 2) considering the findings in decisions that affect the program and disseminating results (i.e., findings use); and 3) seeking feed-back from stakeholders involved in the evaluation (i.e., process use). As above, these steps will need to be completed with support by the thesis committee after data have been analyzed and interpreted. See Appendices II for CDC Program Evaluation Framework Step 6 Checklist and worksheets.

The CDC Program Evaluation Framework has also been considered for Step 6 and are summarized in the table below.

Standards for Step 6: Ensure Use and Share Lessons Learned

Table 16

Application of the CDC Program Evaluation Framework Standards for Step 6

Standard	Questions
Utility	**Do reports clearly describe the program, including its context, and the evaluation's purposes, procedures, and findings?** The reports clearly describe the program, its context, and the evaluation purposes, procedures and findings so they can be implemented by stakeholders and accessed by academic and community partners. Findings will be summarized in a one-page handout for stakeholders **Have you shared significant mid-course findings and reports with users so that the findings can be used in a timely fashion?** Mid-course findings and reports were shared with CVO founder and Vancouver Veterinary Director so findings can be used in a timely fashion **Have you planned, conducted, and reported the evaluation in ways that encourage follow-through by stakeholders?** The evaluation has been planned, conducted, and reported for findings and recommendations to be accessible and for CVO stakeholders, along with academic and community partners. Findings will be summarized in a one-page handout for stakeholders, which will include recommendations
Feasibility	**Is the format appropriate to your resources and to the time and resources of the audience?** The format is appropriate to the available resources. A one-page hand out will be created to accommodate to the time and resources of the audience
Propriety	**Have you ensured that the evaluation findings (including the limitations) are made accessible to everyone affected by the evaluation and others who have the right to receive the results?** Evaluation findings, including recommendation and limitations, will be shared CVO stakeholders, academic and community partners, and clinic participants. A one-page summary will be shared with study participants
Accuracy	**Have you tried to avoid the distortions that can be caused by personal feelings and other biases?** Distortions caused by personal feelings have been reduced through the use of an independent separate analysis performed by MacPhee and with consideration and feedback from research team **Do evaluation reports impartially and fairly reflect evaluation findings?** Evaluation reports will impartially and fairly reflect evaluation findings, as other stakeholders will collaborate and consult with this process. Limitations and recommendation will as be reported

Chapter 3: Methodology

3.1 Research Design

A qualitative descriptive design was used to evaluate the impact of the CVO Vancouver One Health Clinics from January 2019 to February 2020. A qualitative descriptive study was selected to provide broad insight into client's experiences and evaluate perceived clinical outcomes from attending CVO Vancouver One Health Clinics (Shakir, 2002; Sandelowski, 2010). A qualitative description design was also chosen to offer rich exploratory information and provide insight for further research (Doyle et al., 2016).

3.2 Sampling

Convenience sampling was used to obtain a sample of nine CVO Vancouver One Health Clinic participants. Convenience sampling is a type of nonprobability sampling in which the researcher selects any or all available subjects who meet the inclusion and exclusion criteria of the study (Powers, Knapp & Knapp, 2010). Convenience sampling was chosen because of its practicality for collecting data from the population of interest during the year timeline of the study (Powers, Knapp & Knapp, 2010). A contact list of CVO One Health participant contact data, who consented to participate in future research studies, was released and shared with the researcher for the purposes of this study. Potential study participants were drawn from CVO clinical data, in chronological order from the list of participants, beginning with most recent clinic attendance.

3.2.1 Inclusion Criteria

Study participants were selected from the CVO One Health participant contact list based on clinic attendance between January 2019 and February 2020.

Inclusion criteria for the study consists of:

- participants who were 18 years of age and older at time of interview
- participants who had access to a phone for interview purposes
- attended a CVO Vancouver One Health clinic between January 2019-February 2020
- provided consent to participate in future research

3.2.2 Data Collection

Retrospective data was collected using semi-structured interviews over the phone by the primary researcher. Participation in the study was voluntary and participants could withdraw from the study at any time. If participants chose to withdraw from the study, all data would then be destroyed.

Interviews were conducted over an approximately one-hour phone call and were audio-recorded via “TapeACall” application. Audio-recorded interviews were then transcribed verbatim by the primary researcher within one week’s time and deleted from the recorder following transcription.

3.3 Ethical Considerations

This study was approved by UBC Behavioral Research Ethics Board (BREB) March-2021.

3.3.1 Consent

Verbal consent was obtained prior to the study. An information sheet which summarizes the purpose of the study was provided to study participants prior to the study via email. Informed consent was ongoing and maintained throughout the research process and participants were free to withdraw at any time. Consent forms and study information sheets are in Appendices III.

3.3.2 Confidentiality

All data collected from clinic participants were kept anonymous and confidential. No identifying information of participants has been reported. Participants were asked to select a pseudonym for purposes of data collection and recording.

3.3.3 Privacy

Interviews took place over the phone and were audio recorded on the password protected phone of the primary researcher. Any phone numbers or voice messages collected were promptly deleted from call history. The audio files were numerically numbered and uploaded onto the researcher's password protected computer. Audio interview recordings were then deleted from the researcher's phone within 24 hours

All interviews were transcribed manually within one week of completing the interview by the primary researcher. Finally, all interview data was uploaded and securely stored on UBC Workspace. Only the author and thesis supervisor have access to the data. Data will be kept securely for 5 years and then destroyed by the thesis supervisor.

3.3.4 Incentive

Following the interview, participants were provided with a bag of veterinary grade (Royal Canin) pet food, approximately $60 CAD value. This food became available to research participants in-person at CVO Vancouver clinics.

3.3.5 Potential Risks

The study population comprises of vulnerably housed individuals who reside in the inner-city of Vancouver. To minimize risk to this sample population, the interview questions are specific to their perceived health benefits after attending One Health Clinics. Only information relevant to specific research questions was obtained and analyzed. Participants were informed during the review of the study information that they would not need to disclose any sensitive information or any information that they would not feel comfortable in sharing. Clients were informed that they were free to withdraw from the study at any time and would still receive the incentive.

3.3.6 Potential Benefits

There were no identified direct benefits to research study participants. Indirectly, the study has been used to evaluate the value of CVO Vancouver One Health clinics with respect to the delivery of primary care services and health promotion in vulnerable communities. Participants were aware that completion of this study may help with clinic sustainability and improve delivery of services to meet population needs.

3.3.7 COVID-19 Considerations.

No in-person interviews were conducted due to risks and restrictions associated with COVID-19. All interviews took place over the phone to ensure safety of research participants, primary researchers, and consistency with the provincial public health order.

3.4 Analysis

Data analysis was completed using thematic analysis via iterative approach. Thematic analysis is a method for identifying, analyzing, organizing, describing, and reporting themes found within a data set (Braun & Clarke, 2006). Thematic analysis was chosen for analysis, as it provides a rich account of the data by organizing it into small units, outlining similarities and differences, and highlighting nuanced insights (Braun & Clarke, 2006; King, 2004).

3.4.1 The Phases and their Description of Thematic Analysis

Table 17

The steps and their descriptions of Thematic Analysis

Steps used to analyze the interviews from study participants

Analysis phases and their description
Thematic analysis and their description (Braun & Clarke, 2006: 87)
Familiarising with data Transcribing data, reading and rereading the data, noting down initial ideas
Generating initial codes Coding interesting features of the data systematically across the entire data set, collating data relevant to each code
Searching for Themes Collating codes into potential themes, gathering all data relevant to each potential theme
Reviewing Themes Checking if the themes work in relation to the coded extracts and the entire data set, generating a thematic map
Defining and naming Themes Ongoing analysis for refining the specifics of each theme and the overall story that the analysis tells, generating clear definitions and names for each theme
Producing the report The final opportunity for analysis. Selection of vivid, compelling extracts, relating back of the analysis to the research question and literature, producing a report of the analysis

Note: Table 17 was created using content from Braun & Clarke, 2006

To generate a reliable analysis of the data, Lincoln and Guba's (1985) criteria for trustworthiness was utilized in conjunction with the analysis (Connelly, 2016; Cope, 2014; Krefting, 1991; Lincoln & Guba, 1985). Lincoln and Guba define trustworthiness as the measure of the rigor of a qualitative study and outlines the level of confidence in the research process (Lincoln & Guba, 1985; Pilot & Beck, 2014). Trustworthiness is broken down into the following criteria: credibility, transferability, dependability, and conformability (Lincoln & Guba, 1985). How the CVO Vancouver One Health Clinics met each of the four criteria is examined in the discussion section below.

3.5 Establishing Trustworthiness During Each Phase of Thematic Analysis

Table 18

How Trustworthiness is Established During Each Phase of Thematic Analysis

Phase 1: Familiarizing yourself with the data	▪ Prolonged engagement with data ▪ Triangulate different data collection modes ▪ Document theoretical and reflective thoughts ▪ Document thoughts about potential codes/themes ▪ Store raw data in well-organized archives ▪ Keep records of all data field notes, transcripts, and reflexive journals
Phase 2: Generating initial codes	▪ Peer debriefing ▪ Researcher triangulation ▪ Reflexive journaling ▪ Use of a coding framework ▪ Audit trail of code generation ▪ Documentation of all team meetings and peer debriefings
Phase 3: Searching for themes	▪ Researcher triangulation ▪ Diagramming to make sense of theme connections ▪ Keep detailed notes about development and hierarchies of concepts and themes
Phase 4: Reviewing themes	▪ Researcher triangulation ▪ Themes and subthemes vetted by team members ▪ Test for referential adequacy by returning to raw data
Phase 5: Defining and naming themes	▪ Researcher triangulation ▪ Peer debriefing ▪ Team consensus on themes ▪ Documentation of team meetings regarding themes ▪ Documentation of theme naming
Phase 6: Producing the report	▪ Member checking ▪ Peer debriefing ▪ Describing process of coding and analysis in sufficient details ▪ Thick description of context ▪ Description of the audit trail ▪ Report on reasons for theoretical, methodological, and analytical choices throughout the entire study

Note: Table 18 highlights how the researcher addressed the criteria for trustworthiness during each phase of thematic analysis (Nowell et al., 2017)

Trustworthiness as defined by Lincoln and Guba (1985) comprises the following principles: credibility, transferability, dependability, and conformability. Although the steps for thematic analysis in Table 5.1 are presented as a linear, six-phased method, thematic analysis is an iterative and reflective process that involves bidirectional movement between the phases (Nowell et al., 2016). How each principle of trustworthiness was met is outlined below:

3.5.1 Credibility

Credibility of a study addresses the accuracy of the researcher's representation of the qualitative data (Tobin & Begley, 2004). Techniques used to enhance credibility of the study included prolonged engagement with the data, data collection triangulation, and researcher triangulation (Tobin & Begley, 2004). Peer debriefing was also used to provide an external check on the research process and to verify the findings and interpretations (Lincoln & Guba, 1985).

3.5.2 Transferability

Transferability applies to the generalizability of the findings of the study (Tobin & Begley, 2004). In qualitative research, transferability is only applicable case-to-case (Tobin & Begley, 2004). Rich descriptions of the methodology of this study are provided, so that other researchers, clinicians, program directors and other study interpreters with the capacity to evaluate transferability of the findings from the CVO Vancouver One Health Program Evaluation to other programs and projects (Lincoln & Guba, 1985).

3.5.3 Dependability

Dependability of the study is appraised when the researcher is able to examine how the researcher came to the findings of the study (Lincoln & Guba, 1985). To achieve

dependability of the CVO Vancouver Program Evaluation, the research process is logical, traceable, and clearly documented (Tobin & Begley, 2004). Dependability of this study was further enhanced through the use of reflexivity and an audit trail by the PI (Tobin & Begley, 2004).

3.5.4 Reflexivity

Reflexivity was achieved in this study through the use of a reflexive journal, where the researcher documented subjective observations during the course or the study (Tobin & Begley, 2004). This was accomplished by the researcher documenting reflections of their values and insights, along with rationales for methodological decisions throughout the research process (Lincoln & Guba, 1985).

3.5.5 Audit Trails

An audit trail was used to enhance dependability by providing readers with records of the raw data, field notes, transcripts, and a reflexive journal (Tobin & Begley, 2004). This supported a trustworthy analysis through cross reference data, as well as providing evidence of the decision made by the researcher (Tobin & Begley, 2004).

3.5.6 Confirmability

Lastly, confirmability is established when the other three criteria of trustworthiness, (credibility, transferability, and dependability), are all attained (Guba & Lincoln, 1989). Confirmability of this study is established by including the justifications for theoretical, methodological, and analytical decisions, which demonstrates how conclusions from the study are made (Tobin & Begley, 2004).

Chapter 4: Results

The results are presented as themes and sub-themes that emerged from interviews with clinic participants, which generated the data for this study. Pseudonyms are used for clients' names to ensure confidentiality. Qualitative data findings were used to evaluate program outcomes in the Logic Model (Table 4.4).

CVO Vancouver One Heath Clinic Logic Model summarizes the inputs required for the program activities, and the associated outputs and outcomes with the program. The themes are organized by short-term, intermediate, and long-term outcomes as described by clients who have attended one or more CVO Vancouver One Health Clinics. The client perceived outcomes are summarized in the table below.

Outcome Evaluation of Vancouver One Health Clinic as Perceived by Each Participant

Table 19

Participant perceived outcomes of Vancouver One Health Clinics

	Short-Term		Intermediate		Long-term	
Participant	CVO One Health clinics provide access to One Health services	CVO One Affirmation of Socioeconomic and Health Challenges	CVO One Health provide ongoing access to One Health services	CVO One Health empower clients regarding decision making surrounding health	CVO One Health clinics offer early intervention and increased access to primary care	CVO One Health clinics support improved health and wellness
1	X	X	X	X	X	X
2	X	X	X	X	X	X
3	X	X	X	X	X	X
4	X	X	X	X	X	X
5	X	X	X	X	X	X
6	X	X		X	X	X
7	X	X	X	X	X	X

Note: Each "X" represents participant perceived outcome with attending One Health Clinic Results from the interview questions that support outcome evaluation are included in Appendices III.

4.1.1 Short-Term Outcomes

CVO defines short-term outcomes that are outlined in the logic model and were evaluated in this study are as follows:

- Access to One Health Services
- Affirmation of socioeconomic and health challenges

How the results of the study support or oppose the short-term outcomes are highlighted through clients' narratives below.

1. Access to One Health Services

According to the CVO program objectives and logic model, access is defined as the availability, usability, and appropriateness of services for the individual, and the opportunity for individuals to use the services with ease (CVO, 2020; Levesque, Harris & Russell, 2013). Furthermore, access to CVO One Health services involves providing relevant health care resources in a culturally sensitive manner to support the health of person and animal, as they are related to their shared environment. All nine participants reported that CVO One Health Clinics promote access to One Health services through the provision of low-barrier veterinary and human health services. The following quotes support the importance of access for clinic participants,

Lou shares,

> "I honestly really like the idea of One Health...Whether or not I do utilize the services... I know a lot of people do utilize the services for themselves... And I think **it's a great way of getting their needs met at the same time as getting their pets' needs met**... Especially since people will often put off their own needs for their pets, so being able to get both of those covered and not having to worry about costs... It's uh pretty great."

Barb added,

> "I think it's a good idea because you can at least get some of those people you may not necessarily otherwise get to see... So, in that aspect I think it's a good idea... like I said, I don't know if everybody would use it because some people already have doctors or what have you. **For people that are low income or homeless... it might be the only time they get to see a dentist or ya know a doctor,** to know that was accessible, they get to take the pets as well and you know they get to do it all-in one-shot kind of thing, I think it's a good idea."

Three of the nine participants did not access services from the human health care team. All three of these participants reported that they liked the care model of One Health Clinics and were appreciative of the offered human health services available to them, but they did not feel the need to access the services the day of the clinic. Nevertheless, these three participants reported that if they needed care the day of the CVO event, they would have also accessed the available human health services.

Sandy explains,

> "I didn't [access offered human health care services] because I really didn't need them, so I thought more for someone else. But **it was nice to know that if I did have an issue that I could say 'hey, should I see a doctor about this?**' Thought that was just amazing, I really did."

Rose adds,

"I did not see the need for the services at the time. I have a dentist downtown, but **I am very appreciative that they were offered**."

When asked about physical accessibility of the One Health Clinic,

Brianna shared,

> "Yeah well, physically... It's good ya know to get out and walk... It's [the One Health Clinic] **not far, it's easy to get to... There are no stairs.** So, they always have a place where you can walk in or an elevator. They even take that into consideration".

In general, participants commented on how accessibility of One Health clinics could be improved with more frequently scheduled clinics, earlier advertising of events, and transportation services for clients and their pets to get to events. When exploring the individual reasons as to why participants did not access the offered human health care services, two participants reported to already being well connected to primary care services through their Community Health Center (CHC) and the other participant reported to have not been aware that human health services were offered.

One of the connected CHC clients reported that if their wound care was scheduled on the day of the One Health Clinic, they would have seen a nurse for a dressing change while waiting for their cat to be seen by the animal care team. The other participant, who reported not accessing the available human health services as they felt they did not need anything, also reported that if they felt they had needed something, they would have accessed the services available to them.

Sandy shares,

> "I didn't [access the available human health services], because I am well looked after [at my CHC] already but **there was nothing precluding me if I felt that I needed to"**

The third participant who did not access the human health services reported to have not been aware of the available human health services embedded into the CVO One Health Clinic.

Barb explains,

> "My kids may have [accessed the available human] services if something was going on at the time. They might of, if they needed anything at the time... **but had they needed anything and I known it was available, I would have**"

2. Affirmation of Socioeconomic and Health Challenges

In serving vulnerably housed pet owners, CVO aims to minimize the social, political, and economic factors that contribute social inequalities and barriers to care (Lem, 2019). The CVO One Health Model is founded on the principle that clients are the experts of their own lives and to understand clients' experiences through a Social Determinants of Health Framework (Lem, 2019). All nine participants reported that CVO One Health Clinics offer affirmation of socioeconomic and health challenges through contextual awareness and understanding of people's lived experiences.

Sandy explained,

"The girl told me what the event was all about, care for your pet, care for you...um if you need this, you need that, if **they can't help you there, they can refer you.** I thought, holy cow it's for everybody.' It was amazing!"

Lou adds,

"When there was juice and sandwiches... **sometimes that may be my first meal of the day**…"

Similarly, CVO programs are rooted in building on strong attachments vulnerably housed pet owners have with their pets and how the health of the animal and person are interconnected (Lem, 2019). Eight out of nine participants reported that they would not be able to afford veterinary care otherwise and one participant reported that they would have to go without certain personal items to be able to pay for the services which they accessed at the One Health Clinic.

Bonnie reported,

> "It [One Health Clinic] was good… I was grateful Heatley had it [One Health Clinic] **… I can't afford to take him [cat] to the hospital or doctors…**"

Similarly, Barb shared,

> "That clinic…was good, everyone was friendly, and they were nice, very helpful with the animals... they had free things that you could take like collars and leashes and such... so, **it was helpful."**

When asked how attending the One Health Clinic made them feel, Brianna reported,

> "Well good because I knew Buddha was ok. That's a **big relief. Especially if that's your only close family is your pet**… the kids on the street, that's their only protection and everything... They keep them warm...you know... [CVO One Health Clinics] it's even more important than it is or me probably"

Matt adds,

> "[I felt] good because knowing that I am able to get veterinary services through these clinics, it **puts me at ease**… by me going there, I am being a responsible pet owner and it benefits Vito, which benefits me 10,000 times more... through all the free therapy I get from him. Also being responsible for another life, keeps me more responsible for myself. Making sure he gets water, then I drink water too, make sure he's got food, then I make food. And then we go for walks three times a day. These are all good reminders, and he does it in not a nagging way."

Furthermore, all nine participants reported that the clinic staff were friendly, respectful, and offered care through a person-centered approach.

Rose explains,

> "I got there at the tail end of the event. Some of the stations were packed up and closing down. Somebody came and looked at my dog, somebody came and asked me questions. Even though there were **s**ome stations that were closed down, there were still people there that were wanting to help…I really liked it [the One Health Clinic]. I really liked the volunteers; they were really good with everyone. **They make you feel welcome**"

In addition to receiving animal care**,** six out of nine participants reported that they engaged with the human health team and accessed the ancillary services available to support their own health.

Bonnie shared,

> "Yeah, I really liked it [One Health Clinic]. They [clinic staff] are very helpful. I **really like how there were pets and how they helped us**. That was good."

Rose added,

> "The healthcare that my dog received… they check her teeth, they umm, I said they needed her anal glands done and they did that. **Like I said, there were health nurses that were asking me my needs** and if they were stuff, they could help me with."

4.2 Intermediate Outcomes

CVO defined intermediate-term outcomes that are outlined in the logic model and were evaluated in this study are as follows:

- Ongoing Access to One Health Services
- Empower Clients Regarding Decision-Making Surrounding Health

How the results of the study support or oppose the intermediate outcomes are highlighted in participants' narratives below.

1. Ongoing Access to One Health Services

Prior to starting clinics in Vancouver, CVO aimed to collaboratively create a sustainable care model with community stakeholder to offer ongoing care to marginalized clients and their companion animals. In evaluating ongoing access to One Health Services, repeated clinic attendance and continued utilization were considered in evaluating this intermediate outcome. Of the nine participants, six reported to have attended more than

one CVO Vancouver One Health Clinic and all nine participants reported that they would attend another.

Lou who has been to "at least 15 One Health Clinics" shares,

> "I love animals... I like talking to people... And also like not having to worry about healthcare costs. Like we are lucky… **Made it a lot easier… like. I'm not sure what I would have done at that point in time if I didn't have the clinics to go to**...like there was a time when there was no way I would have been able to afford it and my brother had already helped me once."

Similarly, Ted who has been to three clinics says,

> "It's been really great, especially the ones at Directions Youth Services Centre, because I find they are really organized there. Um and **when I go to these clinics, it's literally because I didn't have the money to go anywhere else.** I couldn't save up enough to get the spay or anything done… and you guys referred me through to the SPCA to get her spayed, which is fantastic, I don't have to worry."

At CVO Vancouver One Health Clinics, all nine participants reported to have accessed free veterinary and animal care services. Nine out of nine participants reported that they would not have been able to easily access these services otherwise.

Ted shares,

> "I got her [my cat] shots there, like the vaccinations that she needed… and they gave her a flea treatment, and **every time I go in there, they clip her nails**, which is really nice, cause I can't seem to do that…"

Similarly, Matt reports,

> "They inserted his microchip… they trimmed his nails; they gave him a complete physical and then **they also gave me advice at each of the different ones** [One Health Clinics] I was at. I had just had him a couple weeks when I went to the first one, that's when the doctor was advising me about the neuter, and I had a voucher sent to me for the procedure."

Of the nine participants, six reported to have engaged with the human health care team and accessed the available services while attending CVO Vancouver One Health Clinics. These six participants reported that they felt comfortable and enjoyed following up with the human health care team. In addition, all nine participants reported that if they felt that they had any health concerns the day of the clinic they would have accessed required services.

Lou explains,

> "um yeah... for the most part [the CVO One Health Clinic was] not for myself… but for him, as I was already getting services from my clinic [CHC], but like I was aware... like there was basic nursing care... There was some wound care… Not so much… Not anything that required urgent care… **I like following up with dental care**… I definitely took advantage of the snacks"

When asked for feedback on the One Health clinics, nine out of nine participants reported that the available services met their needs.

Ted shared,

> "I think **you provided really thorough services for everything I need**."

When asked what was missing at the clinic, six out of nine clients reported nothing.

Bard shared,

> "Nothing. I wouldn't say necessarily like **there was nothing I could pinpoint**. Like it seemed to run particularly smoothly. Like everyone was happy, you know"

Lou added,

> "**Nothing, not a thing**."

When asked what improvements could be made at One Health clinics to improve access to services, clients reported a range of suggestions that included medication

samples, separating cats and dogs in the waiting room, transportation for clients, and a hairdresser for people. Two of the nine participants reported having scheduled clinic dates, booked appointments and earlier advertising would be helpful.

Ted shares,

> "Maybe earlier advertising. I know **I missed a couple cause I didn't know the clinic was coming** until like two days after"

Matt adds,

> "I would **prefer to have booked appointments** but recognize that it does work for everyone".

Barb who has two teenage children shares,

> "I think there should be **a clinic that is accessible for teenagers** so that they can come in and talk about their mental health or um like sexually transmitted diseases or birth control that they might not be able to access without a parent taking them to a doctor, you know what I mean… because I noticed there are quite a few younger people on the streets these days... I don't think they, especially being younger, know where to go to find anything or know where to look... If they don't, they don't have anyone to guide them."

All nine clients reported that One Health clinics should be held more frequently to make the offered services more readily available.

2. Empower Clients Regarding Decision Making Surrounding Health

Empowerment is defined as "a process through which people gain greater control over decisions and actions affecting their health" (WHO. 2021). At CVO One Health clinics clients are viewed as health partners and principles of self-determination and client agency are valued. Clients are offered both animal and human health services where they can navigate the available services and choose to access those that are perceived to be of value to them. Clients are supported through this process via a strength-based model of

care, honouring each person's resilience and their ability to provide care for both themselves and their animal. Through their attendance at the CVO One Health Clinics, all nine participants reported feeling empowered regarding decision-making surrounding their health.

Matt shares,

> "I thought it [the One Health Clinic] was really, really good. I went with a couple of other people from my building who also have pets. We were in one space and then another, and they did, like, interviews. There was the part about the pet, and while they were doing something with him, **they were talking to me about access to healthcare services, and if there were things that I needed**. At that point, I was being able to access [human healthcare services] things fairly well, but I appreciate that if it had come like 3 or 4 years before, it would have been really welcomed [when Matt was homeless]. Of course I didn't have a pet then, [laughing] but I could see how people who have pets and maybe involved in drugs and other substances would benefit, again as I say, we tend to think of our pets as something very important to us and we will do what we can to make sure they are really healthy, but we may not take that same care for ourselves, and it's immediately adjacent to the pet's care. Some people [CVO volunteers] there modeled it as, 'it's also taking care of your pet to take care of yourself.' Like an unhealthy owner doesn't walk, doesn't bring them water... not because they don't want to but because they are sick…. And the fact that it was free, was amazing!"

When asked how attending the CVO One Health Clinic mad them feel, Rose reports,

> "Like I mattered. Like my dog mattered. **Like our health mattered**."

Similarly, Sandy shares,

> "It [the One Health Clinic] **lifted my spirits; it warmed my heart**"

CVO One Health Clinics aim to empower clients through a trauma-informed and harm reduction approach, where clients are supported to make decisions that best support their own health-related goals.

Brianna explains,

> "It [the One Health Clinic] was great. They [volunteers] were really nice, but I didn't have any [health] issues. They **give you a form to fill out before and after**. So that probably depends on who you see. So, if you put down you want medical care, they probably fast line you to the medical care."

In addition to the empowerment clients felt around decision surrounding their health, two out of nine participants reported feeling empowered to give back to their community and motivated to volunteer at CVO One Health clinic.

Lou explains,

> "It was really nice seeing all kinds of people and their pets. People who work there, yourself included, were really nice…it's nice talking to people and having people kind of ask about you and how you're doing and how your pet is doing and being able to show off your pet a little bit...part of me really wanted to uh maybe **get into volunteering one time myself".**

Bonnie adds,

"Sometimes it **makes me feel like I would want to help with that [the One Health Clinics**."

4.3 Long-term Outcomes

CVO defined long-term outcomes that are defined in the logic model and have been evaluated through the study are as follows:

- Early Intervention and Increased Access to Primary Care
- Support Improved Health and Wellness

How the results of the study support or oppose the long-term outcomes are highlighted in participants' narratives below.

1. Early Intervention and Increased Access to Primary Care

Early intervention and access to primary care involve providing early support to promote wellness and minimize the risk of poor health outcomes. All of the nine participants reported that CVO Vancouver One Health Clinics offer early intervention and increased access to primary care.

Matt explains,

> "I think **it's [One Health Clinic] really beneficial because I know a lot of other people may not be able to access health care services because of where they are at in life**…. while the pet owner may be there for their pet, a doctor or nurse looking at them or interacting with them may identify health concerns that are not being addressed and maybe they can be diverted into getting treatment and help…. even running a parallel flu clinic, I would imagine not a lot of people get a flu shot, even in my building, don't necessarily get a flu shot… but if it was there [at the One Health Clinic], they might. I think it's often people aren't incentivized to get **it or there are barriers to get it"**

Barb adds,

> "I think its [One Health] a good idea because **you can at least get some of those people you may not necessarily otherwise get to see**... So, in that aspect I think it's a good idea. Umm...like I said, I don't know if everybody would use it cause some people already have doctors or what have you. For people that are low income or homeless or what have you or stuff like that... it might be the only time they get to see a dentist or ya know a doctor, to know that was accessible, they get to take the pets as well and you know they get to do it all-in one-shot kind of thing, I think it's a good idea."

Through attendance at the One Health Clinics, five out of nine participants reported that they directly accessed the offered human health services at the time of the clinic.

Lou shares,

> "Umm... I have spoken with them [One Health Human Health Clinical volunteers] … and like... in **the past I might have gotten toothpaste and such... And I think at one time I even checked my blood pressure...** I do that sometimes... Because when I don't eat…my blood pressure ends up being pretty low**..."**

Ted adds,

> "At the [CVO One Health] clinics they **were testing for HIV and everything, so I got that done"**

Furthermore, four out of nine participants did not access human health services the day of the clinic, but all reported that they felt the services are needed to support others in their community. Brianna explains,

> "Oh no, I didn't see anybody. They asked me but I am pretty healthy. I mean I've got two hip replacements, but I don't have any trouble walking. And I have fibromyalgia, but I've had it for so long I don't really need any nursing care. But I didn't see anyone [human health volunteers], but a lot of people did. So that was good to see because **I am sure the young people that live on the streets, they are probably really hesitant**... **They probably have only been to a methadone clinic**… they come and they [the One Health Clinic staff] are there until really late at night so that's good, yeah"

Matt adds,

> "I think I spoke to a nurse, but at that time I already had a doctor that was tracking me for my HIV and my CHC was offering me mental health support… but because I was already connected, I didn't need to… but **I can totally see the benefit of having all of those things there, because it's a point where you can potentially intervene in people's lives and get them access to healthcare**. Even if there was a vaccine that needed to be administered in a community for something."

Additionally, Sally shares,

> "I thought it lovely that CVO offered such great care for people too. I didn't happen to need anything myself but **there were people there that were getting**

> **dental stuff and all kinds of things like tha**t. It was so great the way it was all-encompassing."

When asked what would help promote access to care for people experiencing homelessness, Matt shared,

> "I think, like, pop-up clinics, like the one you were involved with CVO. Things like that or more like street-level services. **I** know when I was my worst, my world was very small. If you didn't come into my world, I was going [not] out looking for you**.** I was also paranoid that everything was against me. And at that point, a pet would have helped as well. I always felt very responsible when I had a pet. I think the type of clinic that you were involved in, with like healthcare for me and for my pet, is like very beneficial. **Oftentimes, in, like, people in the kind of situation like I was in, they will take care of their pet, and if you if kind of, almost in a subversive way, have health care services there for them, then they will probably access them. Because now you have two things that come togethe**r…. I know my family doctor lets me bring my dog in with me. Even though, he's not an official therapy dog."

Bonnie adds,

> "My dressing change is every other day… **if my dressing change was that day [the day of the One Health Clinic], I would have done it**… **I like the idea that I can bring Blackie and also get care**."

2. Support improved health and wellness

Health and wellness are terms that often interchanged but differ in meaning and origin. WHO defines health as "the state of complete physical, mental and social wellbeing and not merely the absence of disease" (WHO, 2021). Separately, wellness is defined as "an active process through which people become aware of, and choices toward a more successful existence" (NHI, 2020). While the terms health and wellness differ in their meaning, they are connected, and one influences the other. CVO's model of care is based on the Social Determinants of Health Framework and improving both health and wellness by minimizing disparities to care amongst marginalized community members.

When examining narratives, nine out nine participants reported CVO One Health Clinics positively support health and wellness of both the person and pet.

Rose explains,

> "**I think that having a health nurse, person nurse, helping with a vet is very beneficial. We will go to vets; we will go to all kinds of events that we can get to for our pets. We are less likely to go to the ones for ourselves**… It's just a little cut on our leg, its fine, its fine, ya know...but for our pets are…we would be there in a minute. But ourselves, I know when I was in the shelter, I am more apt to go to something for my pet than myself, so having the two together is so beneficial, is such a great idea! …Like I said, I was there because of the healthcare I could get for my dog. When I was living downtown, the SPCA was having free clinics at Oppenheimer Park, I would go there because I needed things for my dog… but it took me months, months to down to the free clinic for myself. In my building I know a dozen people right now who would benefit from this type of service [CVO One Health Clinics]"

When examining components of individual health and wellness, four out of nine participants reported feeling relieved after attending the One Health Clinic.

Brianna shares,

> "It [attending the One Health Clinic] **made me feel good that there is someone there for us**. Cause I always worry about paying for the vet. Or for the dog to see somebody. That was a big relief. I told people in my building about it…I promote them [One Health Clinics] anyway I can. I think they are fantastic; I tell everyone about them. …. I hope they start up again soon!"

Ted adds,

> "Right along with the **relief and everything**, when you're stressed it affects your sleep and mental health"

When analyzing the data, themes of belonging and connection to their community also emerged from the data. Six of nine participants reported that CVO One Health Clinics promote community health and wellness.

Barb explains,

> "[attending the One Health Clinic] **I felt good, I liked it [One Health Clinic]. I thought it was a good experience.** You got to see other dogs, you got to talk to other people. You know other people with their pets, it was fairly open if you know what I mean... like everyone kind of hung out in one area."

Ted also shared,

> "Well um, besides improving my pet's health for sure, um I guess going through there **you get to see a lot of other people who are in the same situation as you, you don't feel quite as alone,** you're not the only one who has a pet that they can't quite pay for all those expensive services for right now, but still value having an animal in their life. I never need much of the items that they donated to people, but I do know that it was very beneficial to other people there."

Similarly, Matt adds,

> "It felt good **because I felt like I was connected to my community, and it felt good to be doing something positive for my pet and also for me**."

Chapter 5: Discussion

This study evaluated whether or not CVO Vancouver One Health Clinics achieved their intended short, intermediate, and long-term outcomes for clinic participants. The CDC Program Evaluation Framework guided the development of a testable logic model for the CVO Vancouver One Health Clinics. Interview data from research participants demonstrated that CVO One Health Clinics achieved intended outcomes, such as access to care and affirmation of socioeconomic and health challenges (short term); client empowerment surrounding decision making on their own health, access to primary care and preventative services (intermediate term), and ultimately support the health and wellness of the person and their pet, through early intervention and access to primary care (long term).

5.1 Short Term Outcomes

The CVO One Health model of care provides low barrier integrated veterinary and human health services that support both the health of person and their pet. The application of this care model is strength based and builds on the strong attachments vulnerably housed populations have with their companion animals. Study participants described their pets as “my only family member”, “my everything”, “the reason I get out of bed at all”, and “my lifeline”. These narratives were consistent with the literature and provide further evidence of the strong attachment between vulnerably housed people and their pets, which is often stronger than that of the general population (Lem et al., 2016; Irvine et al., 2012; Rhoades et al., 2015; Taylor, et al., 2004; Kidd & Kidd, 1994).

Participants in this study reported that providing care for their pet is a priority and there is no hesitation when it comes to seeking out resources for their animals. Participants also

described times when they would compromise their own care needs to support the health of their pet. Participants described how access to care for their pets was much greater than their desire to seek out health services for themselves. This theme is reported in the literature as "pet before self" (Lem et al. 2015) and was found to be universal amongst study participants in this evaluation who prioritized their pets' health over their own. (Lem et al. 2015).

The impact of this bond and the strong motivation vulnerably housed populations demonstrate to care for their pets contributes to the origin of the CVO One Health model and the value of integrating veterinary and interdisciplinary human health services to positively influence clients' health and wellbeing through a holistic model of care (CVO, 2020; Panning et al., 2016). Participants in this study reported that CVO Vancouver One Health Clinics provide access to one health services and offer affirmation of socioeconomic and health challenges through a strength-based approach to care.

5.2 Intermediate Term Outcomes

Findings from this evaluation expand on previous research conducted in Ontario on the CVO model of care, which demonstrated that access to veterinary care can act as a direct avenue and catalyst to connect vulnerably housed populations to human health and social services by building rapport and trust with the client through concern for the pet (Lem et al., 2013; Lem 2019; Panning et al., 2016). During relationship-building, veterinarians and other healthcare service providers are then placed in pivotal positions to start general health teaching and to offer clients potential access to supports for their own health and wellbeing. This is achieved through trauma-informed practice and harm reduction approach, by meeting people and their pets wherever they are at in their care trajectory.

Through attendance to CVO One Health Clinics, study participants reported to feel empowered to make decisions surrounding their health and denied any hesitation or concerns related to attending future CVO events. These findings build on what is already reported in the literature on the CVO One Health model and the degree to which these outreach clinics can empower and promote ongoing access to services for underserved populations (Jordan & Lem, 2014).

5.3.1 Long Term Outcomes

In addition to empowering underserved populations and promoting ongoing access to care services, CVO One Health Clinics offer early intervention to care and promote health and wellbeing for vulnerably housed people and their pets. At CVO One Health Clinics, participants have the opportunity to access low barrier healthcare and social services for themselves and their pet. Participants in this study reported to access animal care services such as, a veterinary examination, grooming services, preventative flea treatment, spay and neuter consults, core vaccines and referrals for follow up care for their pet. While clients access these services for their pets, they reported to have also spoken with a nurse, pharmacist, dental hygienist, or social worker for themselves. Through the offered human health services, participants received influenza immunizations, dental hygiene consults and products, mental health support, primary care, harm reduction supplies and community referrals.

The findings from this evaluation were consistent with previous qualitative studies and support the efficacy of the CVO One Health care model. This evaluation of CVO Vancouver One Health Clinics further strengthens what has been reported from previous studies on existing CVO programs and the one health care model. For example, a pilot study of CVO Ottawa and

Toronto Clinics demonstrated that veterinarians had the ability to amplify human health messages and positively influence people's behaviours in relation to their health (Kilborn et al.,2019). This was established through veterinarians offering education to pet owners about the effects of second-hand smoke on animal companions (Kilborn et al., 2019). From this education, and out of consideration for the health of their companion animal, CVO clinic participants self-reported a reduction or cessation in tobacco smoking (Kilborn et al., 2019). Additionally, CVO One Health Clinics demonstrated greater influenza vaccination rates for vulnerably housed populations than vaccination rates at pop-up clinics without paired animal care services (Panning et al., 2016). CVO One Health Clinic, for example, reported a vaccination rate (range 45.4% to 58.6%) that doubled the documented rate (range 7% to 25%) for this population (Butcher et al., 2006; Panning et al., 2016; Young et al., 2015) These findings suggest that CVO Vancouver One Health Clinics improve the health of community members, who may not be able to access the services otherwise.

5.4 Limitations

While these findings are noteworthy, there are also limitations to this evaluation. Limitation of this study are consistent with qualitative research and the degree for the results to be generalized to the target population. The small sample size of nine participants limits the transferability of the findings to CVO One Health Clinics outside Vancouver. Likewise, self-reported data also contributed to the limitations of the findings, as the data was interpreted at face value and could not be independently verified by the researcher. Any inaccuracies of self-reported data are expected to be linked to socially desirability and recall biases, which may have further contributed to the limitations of the findings.

Social desirability bias is the propensity for people to present themselves in a socially favourable manner (Latkin et al., 2016). This bias may have contributed to participants altering their answers to interview questions out of fear of potential judgement from the interviewer or that their answers would interfere with future access to One Health Clinics. Social desirability bias was reduced through thorough explanation that interview answers would remain confidential and would in no way affect access to future services. Similarly, recall bias further contributed to the limitations of the evaluation through variances in the way participants remember or report events from how they took place (Couglin, 1990). Recall bias is an expected limitation to this evaluation, as interviews were conducted a year or more after clinic attendance (Couglin, 1990). Recall bias was minimized through the use of semi-structured interview questions (Couglin, 1990).

Additionally, this research study took place during the COVID-19 pandemic, therefore, in consideration of the public health guidelines and social distancing measures, all interviews took place over the phone. Participants were therefore required to have access to a phone to be consider for an interview. Furthermore, participants were recruited for the study via the phone number that they provided during their attendance at a One Health Clinic. Given inclusion criteria, the most vulnerable groups would be excluded from the study (i.e. people who do not have access to a phone or their phone number may have changed from the time of attending clinic to when study took place). To further understand the degree to which CVO Vancouver One Health Clinics support the health of vulnerable populations, exit survey data or in person interviews should be arranged to include people who don't have access to a phone or the capacity to follow-up for an interview. This approach to data collection would reduce barriers for CVO

clients to participate in the study and research findings to be more representative of people who attend CVO One Health Clinics.

Chapter 6: Conclusion

6.1 Implications for Future Research

Further investigation of CVO One Health Clinics in Vancouver is recommended to understand the efficacy of the care model to support the health of the vulnerably housed population and their pets. Additional studies with broader sampling techniques may be utilized to capture the range in vulnerability of the clients attending the One Health Clinic and extend the transferability of the results. Moreover, interviewing other stakeholders involved in the program such as students, volunteers, and community members will provide added insights to the impact of the programs and evaluate whether the program meets its outcomes for these groups. Formal evaluation and focused studies on CVO One Health Clinics in other regions, along with cross community program comparisons, will also improve the general success of the program through protocols and policy standardization for care delivery. This will support best practice and improve program outcomes in Vancouver and other communities where CVO programs operate.

6.2 Knowledge Translation

The finding of this evaluation will be presented to the CVO board members for quality improvement and to help direct future clinics and projects in Vancouver. These results will also be shared locally with academic and clinical stakeholders to guide policy and promote best practice for providing care for vulnerably housed pet owners. The aim is to reduce barriers and build on the reported benefits of the human animal bond within this population of Vancouver.

The results of this evaluation will also be used to help guide CVO programs in other regions and facilitate change in practice. With collaboration from CVO board members, results and recommendations from this evaluation will be shared with CVO Directors across Canada

and the USA. This evaluation can be used to inform research and standardize CVO programs in other regions. The findings will then be published in peer-reviewed journals to promote knowledge dissemination and synthesis with the academic community. The findings will also be presented at an academic conference and shared leaders in amongst the academic, medical, and social service community to generate awareness and narrow the division from knowledge to practice.

6.3 Conclusion

The bond between vulnerably housed people and their pets is associated with unique health implications and challenges related to access to care and social services. Given the strength of this relationship and related health outcomes, an innovative approach to care is required to support the health of both the person and their animal. CVO Vancouver One Health Clinics aim to break down these systemic barriers to uniquely provide integrated services that support public health and improve access to care, for both the person and their pet.

Through the use of the CDC program evaluation framework, it was demonstrated that CVO Vancouver One Health Clinics achieve their short, intermediate, and long-term outcomes through the provision of ongoing access to care, affirmation of socioeconomic and health challenges, client empowerment surrounding decision-making on their own health, and access to primary care and preventative services. The outcomes of CVO One Health Clinic activities collectively promote health and wellness of the person and their pet. These findings support the efficacy of CVO Vancouver One Health Clinic, which is considered to inform research, guide practice, and drive changes in policy to improve the health of the most vulnerable community members and their pets.

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Appendices

Appendix A - CDC Program Evaluation Framework Checklists and Worksheets

A.1 CDC Program Evaluation Framework Checklist for Step 1

CDC Program Evaluation Framework Checklist for Step 1

Engage Stakeholders

The first step in the CDC Framework approach to program evaluation is to engage the stakeholders. Stakeholders are people or organizations that are invested in the program, are interested in the results of the evaluation, and/or have a stake in what will be done with the results of the evaluation. Representing their needs and interests throughout the process is fundamental to good program evaluation. A program may have just a few or many stakeholders, and each of those stakeholders may seek to be involved in some steps or all six steps. This checklist helps identify stakeholders and understand their involvement in the evaluation.

Although "Engaging Stakeholders" is the first of the 6 steps, the first three steps of the CDC Framework are iterative and can happen in any sequence. For instance, identifying the right stakeholders may make more sense to do for your evaluation after drafting the purpose, user, and use of the evaluation that happens in Step 3. That said, this checklist will help you think through the key points in identifying and engaging stakeholders throughout your evaluation.

☐ Brainstorm potential stakeholders. These may include, among others:
- ☐ People affected by your program
- ☐ People involved in implementing the program or conducting the evaluation
- ☐ People who will use the results of the evaluation. These may include internal staff, partners, program participants, community members, and other organizations, among others

In brainstorming the list be sure to think broadly, including in your list:
- ☐ People in the above categories who share your priorities, and people who don't
- ☐ People in the above categories who are critics as well as supporters

☐ Especially if the list is very long, try to extract the subset of most important stakeholders. Some helpful criteria for identifying whether a person or organization is a key stakeholder include that they:
- ☐ Increase the credibility of your program or your evaluation
- ☐ Are responsible for day-to-day implementation of the program activities that are being evaluated and will need to implement any changes
- ☐ Can advocate for the changes to the program that the evaluation may recommend, OR actively oppose the recommended changes
- ☐ Fund or authorize the continuation or expansion of the program

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☐ Discuss with key stakeholders individually the best way to engage them—in person, phone, email etc. Regardless of chosen medium, in the engagement discussions get clarity on the following questions: [NOTE: If a preliminary logic model for the program has been completed, then use it to help frame and target the questions.]

- ☐ What do you see as the main outcomes of the program?
- ☐ What do you see as the main activities of the program?
- ☐ Which of the activities and outcomes are most important to you? That is, to retain your involvement and support, which activities must be effectively implemented and/or which outcomes achieved?
- ☐ What do you see as the most important evaluation questions at this time?
- ☐ [If outcomes are included] How rigorous must the design be?
- ☐ Do you have preferences regarding the types of data that are collected (e.g., quantitative, qualitative)?
- ☐ What resources (e.g., time, funds, evaluation expertise, access to respondents, and access to policymakers) might you contribute to this evaluation effort?
- ☐ In what parts or steps of this evaluation would you want to be involved? All or just some specific ones?
- ☐ How would you like to be kept apprised of this evaluation? How best to engage you in the steps in which you want to be involved?
- ☐ (How) will **you** use the results of this evaluation?

☐ Examine the results of the stakeholder discussion for insights related to development/refinement of the program description and logic model. Also examine for a starter set of important evaluation questions, which will be elaborated during Step 3.

☐ Especially if there are many stakeholders, summarize the results of the engagement discussions with a [simple or detailed as you prefer] plan for stakeholder involvement, including which stakeholders will participate/provide input during the major stages of the project and what their roles and responsibilities will be for each step.

A.2 Worksheet 1A: Identifying the stakeholders and the program activities and outcome that matter most to them

Stakeholders	**What activities and/or outcomes of this program matter most to them?**
CVO Founder	Efforts lead to improved health outcomes for vulnerably housed populations and their companion as a result of CVO program
CVO directors and clinic coordinators	Efforts lead to high clinic attendance and uptake in services for vulnerably housed participants and their companion animals
Volunteers	Delivery of clinical services to clinic participants and their pets
Clinic participants	Access to veterinary and human health services
Veterinary and Healthcare students	Clinical experience with population of interest and delivery of primary care services
Academic partners	Efforts lead to improved health outcomes for vulnerably housed populations and their companion
Community partners	Efforts lead to engagement with individuals who are disconnected from healthcare and social services
Animals Welfare groups	Efforts lead to improved welfare of companion animals and diversion of animals from shelters

A.3 CDC Program Evaluation Framework Checklist for Step 2

CDC Program Evaluation Framework Checklist for Step 2

Describe the Program

A **logic model** is a graphic depiction (road map) that presents the shared relationships among the resources, activities, outputs, and outcomes/impacts for your program. It depicts the relationship between your program's activities and its intended effects, in an implicit 'if-then' relationship among the program elements — if I do this activity, then I expect this outcome. Among other things, a logic model helps clarify the boundary between 'what' the program is doing and 'so what'—the changes that are intended to result from strong implementation of the "what."

A logic model can focus on any level of an enterprise or program: the entire organization, one of its component departments or programs, or just specific parts of that department or a program. Of course, the boundary between "what" and "so what" will vary accordingly.

Related Terms

Logic models are the most common, but not the only, name applied to a visual depiction of a program. Here are some names of others approaches that either replicate or closely resemble logic models in their format and intent. There are occasions where one approach/format is a better fit than another, but often any of these will work equally well:

- Program Roadmaps
- Theory of Change
- Theory of Cause
- Theory of Action
- Concept(ual) Maps
- Outcome Maps
- Logical Frameworks (LogFrames)

Logic models differ widely in format and level of detail. Here are some key terms used in logic models, although not all are employed in any given model:

- Inputs: The resources needed to implement the activities
- Activities: What the program and its staff do with those resources
- Outputs: Tangible products, capacities, or deliverables that result from the activities
- Outcomes: Changes that occur in other people or conditions because of the activities and outputs
- Impacts: [Sometimes] The most distal/long-term outcomes
- Moderators: Contextual factors that are out of control of the program but may help or hinder achievement of the outcomes

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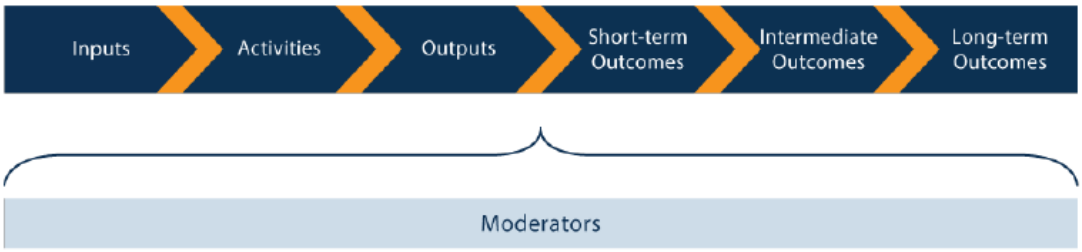


Let's get started. Here are the key steps to developing a useful logic model:

- ☐ Gather information available on the program, including but not limited to:
  - ☐ Mission and vision
  - ☐ Goals and objectives
  - ☐ Current program descriptions such as websites, program descriptions, fact sheets
  - ☐ Strategic plans
  - ☐ Business, communication, and marketing plans
  - ☐ Existing/previous logic models
  - ☐ Existing performance measures and/or program reviews

- ☐ Review the information and extract from it to create a two-column table including:
  - ☐ Column 1: Activities: What the program and its staff do.
  - ☐ Column 2: Outcomes: Who or what beyond the program and its staff needs to change and how. In generating outcomes, it helps to Identify the target audiences for program activities and the action they must take in order for the activities to be successful.
  - ☐ Within the list in column 2, identify the most distal outcome: What is the big public health problem you aim to address with your program?

- ☐ Clarify the activities and outcomes with stakeholders* to ensure:
  - ☐ Appropriate classification; no activities are actually outcomes and no outcomes listed are actually activities
  - ☐ No major redundancy in list of activities or list of outcomes
  - ☐ No major missing activities or outcomes

☐ Decide whether the activities should be ordered sequentially. If so:
- ☐ Think about the "logical" relationship among the activities—which may or may not be the same as how they unfold over time— and determine if some activities need to occur before others can be implemented
- ☐ Order the activities within the columns into earlier or later activities to reflect the sequential relationships

☐ Decide whether the outcomes should be ordered sequentially
- ☐ Think about the "logical" relationship among the outcomes-- will some outcomes logically need to occur before others can be achieved?
- ☐ Move the outcomes into columns to reflect the sequence in which the outcomes should occur. Label the columns as needed (i.e., short-, mid, long-term; or [proximal, intermediate, distal)

☐ Check in with your stakeholders
- ☐ To ensure the activities and outcomes reflect their understanding of the program to ensure:
  - There are no major missing activities or outcomes
  - The logical progression of activities
  - The logical progression of the outcomes
- ☐ To (re)affirm the intended uses of the logic model (i.e., assess implementation, assess effectiveness, performance measurement, strategic planning)

The intended uses of the logic model, will determine which, if any, of the elaborations below would make the logic model more useful.

☐ If **depicting the program logic** in a roadmap format is desirable, then:
- ☐ Write each of the existing activities and outcomes on a sticky note, or equivalent
- ☐ Move the notes around to allow for drawing of lines to depict logical relationships
- ☐ Draw in lines remembering that lines may go from:
  - One or more activities to a subsequent activity
  - One or more activities to an outcome
  - One or more proximal outcomes to a more distal outcome

☐ If **outputs** are desired because stakeholders would like clarification of the direct result of the activities, then using the logic model table or (better) the roadmap:
- ☐ Identify the activities for which outputs are desired
- ☐ Identify the link between those activities and their successor activities or outcomes
- ☐ Thinking about that logical link, what are the key attributes of the activity that must be present for it to produce its successor activity or outcome
- ☐ Place the outputs in the appropriate place in the logic model table or roadmap

☐ If **inputs** are desired because stakeholders would like clarification of necessary resources to implement the program, then:
- ☐ Identify the key inputs without which the program cannot be implemented. Think about broad categories such as staff, equipment, data, funds, and partnerships.
- ☐ Place the inputs into a column to the left of the activities in the logic model.
- ☐ If it is important to see the link between each input and the activity it affects, then draw arrows from each input to the related activity

☐ If **moderators** are desired because—in the view of stakeholders and users—clarification of potential facilitators or barriers in the larger environment is necessary:
- ☐ Identify the key moderators, thinking of broad categories such as political, economic, social, and technological
- ☐ Identify what links in the program logic will be facilitated or impeded by the presence or absence of sufficient levels of the moderator. Remember moderators can facilitate or impede the ability of one activity/output to generate a successor activity/output, one activity/output to generate an outcome, a proximal outcome to generate a more distal outcome
- ☐ Be especially conscious of key moderators without which the program cannot be implemented
- ☐ Place the moderators into the appropriate place in the logic model table or roadmap.
- ☐ If using a roadmap, decide whether to leave the moderators in one block at the bottom of the logic model or draw lines from each moderator to the logical link it will facilitate or hinder
- ☐ Review and affirm or further refine with stakeholders, especially those who will use the logic model

☐ Review and affirm the elaborations of the logic model with stakeholders to ensure it accurately represents the program and the relationships among the components

☐ Create a narrative to go with the logic model. A one-page logic model will not be able to capture all the nuances of the program. The narrative will help explain the components of the logic model and how they work together to accomplish the outcomes. The narrative should include the following:
- ☐ An expanded description of the activities, outcomes, and other components of the logic model
- ☐ Any key linkages between activities, between activities and outcomes, and between different outcomes
- ☐ Attribution v. contribution to outcomes, etc.
- ☐ Stakeholder expectations for what will be accomplished, etc.

*Stakeholders are people or organizations that are invested in the program, are interested in the results of the evaluation, and/or have a stake in what will be done with the results of the evaluation. This definition is found in *Checklist for Step 1: Engage Stakeholders.*

A.4 Worksheet 2A - Raw Material for Your Logic Model

Activities	**Outcomes**
What will the program and its staff actually do?	What changes do we hope will result in someone or something other than the program and its staff?
• Outreach • Establishment of interprofessional partnerships • Training sessions for volunteers • Clients and their companion animals accepted on walk in and referral basis at One Health Clinic • "One Health" education for clients by CVO volunteers • Delivery of on-site animal care and veterinary services • Delivery of on-site human health care services • Case management • Referral to off-site health care service, as needed (i.e. follow up primary and urgent care services)	• Connection to care • Early intervention and increased access to primary care • Improved community health and wellness • Reduction in emergency and acute care visits • Volunteer commitment to the One Health model • Shift in delivery of services from medical model to client-centered and trauma-informed care

A.5 Worksheet 2B - Sequencing Activities and Outcomes

Activities		Outcomes	
Early	Later	Early	Later
Outreach Establishment of interprofessional partnerships Training sessions for volunteers Clients and their companion animals accepted on walk in and referral basis at One Health Clinic	"One Health" education for clients by CVO volunteers Delivery of on-site animal care and veterinary services Delivery of on-site human health care services Referral to off-site health care service, as needed (i.e follow up primary and urgent care services)	**<u>Clinic Participants and their pets</u>** Access One Health services Receive healthcare services through a strength-based approach **<u>Volunteers</u>** Knowledge of factors contributing to **SODH** and homelessness Knowledge of One Health Model Knowledge and communication skills for supporting the unique needs and health risks of population **<u>Community</u>** Increased knowledge of One Health Delivery of low-barrier services and strength-based primary care programs	**<u>Clinic Participants and their pets</u>** Early intervention and increased access to primary care Improved health and wellness **<u>Volunteers</u>** Intrinsic motivation to support population Commitment to the One Health model Shift in delivery of services from medical model to client-centered and trauma-informed care **<u>Community</u>** Improved community health and wellness Reduction in emergency and acute care visits

A.6 CDC Program Evaluation Framework Checklist for Step 3

CDC Program Evaluation Framework Checklist for Step 3

Focus the Evaluation

In Step 2 you described the entire program, but usually the entire program is not the focus of a given evaluation. Step 3 is a systematic approach to determining where to focus this evaluation, this time. Where the focus lies in the logic model is determined, in conjunction with stakeholders, through application of some of the evaluation standards. While there are more than 30 standards, the most important ones fall into the following four clusters:

- **Utility:** Who needs the information from this evaluation and how will they use it?
- **Feasibility:** How much money, time, skill, and effort can be devoted to this evaluation?
- **Propriety:** Who needs to be involved in the evaluation to be ethical?
- **Accuracy:** What design will lead to accurate information?

☐ The standards help you assess and choose among options at every step of the framework, but some standards are more influential for some steps than others. The two standards most important in setting the focus are "utility" and "feasibility." Ensure that all stakeholders have common understandings of the phases (formative/summative) and types of evaluations (needs assessment/process/outcome/impact).

☐ Using the logic model, think through where you want to focus your evaluation, using the principles in the "utility" standard:

- ☐ Purpose(s) of the evaluation: implementation assessment, accountability, continuous program improvement, generate new knowledge, or some other purpose
- ☐ User(s): the individuals or organizations that will employ the evaluation findings
- ☐ Use(s): how will users employ the results of the evaluation, e.g., make modifications as needed, monitor progress toward program goals, make decisions about continuing/refunding
- ☐ Review and refine the purpose, user, and use with stakeholders, especially those who will use the evaluation findings

☐ Identify the program components that should be part of the focus of the evaluation, based on the utility discussion:

- ☐ Specific activities that should be examined
- ☐ Specific outcomes that should be examined
- ☐ Specific pathways from activities to specific outcomes or outcomes to more distal outcomes
- ☐ Specific inputs or moderating factors that may or may not have played a role in success or failure of the program

Centers for Disease Control

☐ Refine/expand the focus to include additional areas of interest, if any, identified in Steps 1 and 2
- ☐ Does the focus address key issues of interest to important stakeholders?
- ☐ Did the program description discussion identify issues in the program logic that may influence the program logic?
- ☐ Are issues of cost, efficiency, and/or cost-effectiveness important to some or all stakeholders?

☐ Refine/expand the focus to include additional areas of interest based on the propriety and accuracy evaluation standards
- ☐ Are there components of the program—activities, outcomes, pathways, or inputs/moderators that must be included for reasons of "ethics" or propriety?
- ☐ Are there components of the program—activities, outcomes, pathways, or inputs/moderators that must be included to ensure that the resulting focus is "accurate"?

☐ "Reality check" the expanded focus using the principles embedded in the "feasibility" evaluation standard
- ☐ The program's stage of development: Is the focus appropriate given how long the program has been in existence?
- ☐ Program intensity: Is the focus appropriate given the size and scope of the program, even at maturity?
- ☐ Resources: Has a realistic assessment of necessary resources been done? If so, are there sufficient resources devoted to the evaluation to address the most desired items in the evaluation focus?

☐ At this point the focus may still be expressed in very general terms—this activity, this outcome, this pathway. Now, convert those into more specific evaluation questions. Some examples of evaluation questions are:
- ☐ Was [specific] activity implemented as planned?
- ☐ Did [specific] outcomes occur and at an acceptable level?
- ☐ Were the changes in [specific] outcomes due to activities as opposed to something else?
- ☐ What factors prevented the activities in the focus from being implemented as planned? Were [specific inputs and moderating factors] responsible?
- ☐ What factors prevented (more) progress on the outcomes in the focus? Were [specific moderating factors] responsible?
- ☐ What was the cost for implementing the activities?
- ☐ What was the cost-benefit or cost-effectiveness of the outcomes that were achieved?

☐ Consider the most appropriate evaluation design, using the four evaluation standards—especially utility and feasibility—to decide on the most appropriate design. The three most common designs are:

- ☐ Experimental: Participants are randomly assigned to either the experimental or control group. Only the experimental group gets the intervention. Measures of the outcomes of interest are (usually) taken before and after the intervention in both groups.
- ☐ Quasi-experimental: Same specifications as an experimental design, except the participants are not randomly assigned to a "comparison" group.
- ☐ Non-experimental: Because the assignment of subjects cannot be manipulated by the experimenter, there is no comparison or control group. Hence, other routes must be used to draw conclusions, such as correlation, survey or case study.

Some factors to consider in selecting the most appropriate design include:

- ☐ With what level of rigor must decisions about "causal attribution" be made?
- ☐ How important is ability to translate the program to other settings?
- ☐ How much money and skill are available to devote to implementing the evaluation?
- ☐ Are there naturally occurring control or comparison groups? If not, will selection of these be very costly and/or disruptive to the programs being studied?

☐ Start the draft of the evaluation plan. You will complete the plan in Step 4. But at this point begin to populate the measurement table (see example below) with:

- ☐ Program component from logic model (activity, outcome, pathway)
- ☐ Evaluation question(s) for each component

Evaluation Questions	Indicators	Data Source(s)	Data Collection Methods

Figure 1: Evaluation Plan Measurement Table

☐ Review and refine the evaluation focus and the starter elements of the evaluation plan with stakeholders, especially those who will use the evaluation results.

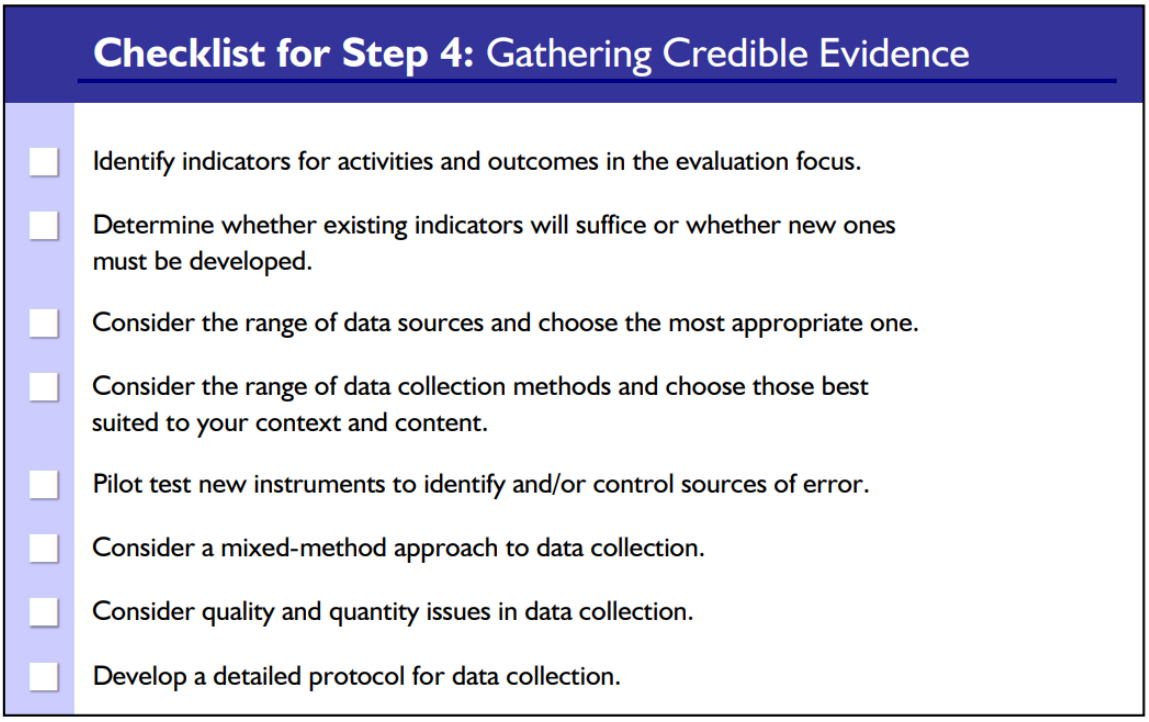
A.7 Worksheet 3A - Focusing the Evaluation on the Logic Model

If this is the situation …	Then these are the parts of the logic model, I would include in my evaluation focus:
Who is asking evaluation questions of the program?	CVO program coordinators and directors UBC academic partners
Who will use the evaluation results and for what purpose?	CVO directors will use the results to guide the program for One Health clinic development, expansion, and quality improvement
In Step 1, did we identify interests of other stakeholders that we must consider?	All stakeholders are considered through this evaluation

A.8 Worksheet 3B - "Reality Checking" the Evaluation Focus

If this is my answer to these questions…	Then I would conclude the questions in my evaluation focus are/are not reasonable ones to ask right now.
How long has the intervention been underway?	CVO has been operating in Vancouver since December 2016
How intensive/ambitious is the intervention? Multi-faceted effort or simple intervention?	CVO partnered One Health Clinics are a multifaceted effort
How much (time and money) can be devoted to evaluation of this effort?	A year's time will be devoted to this evaluation

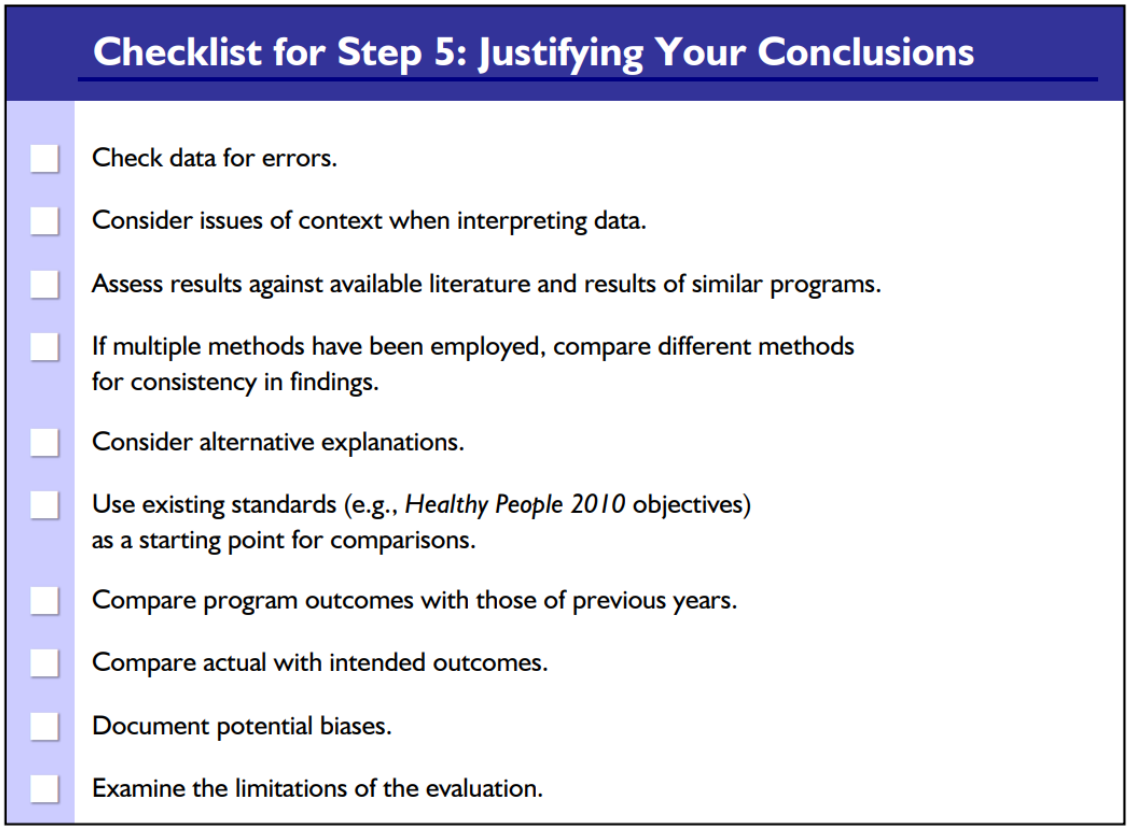
A.9 Checklist for Step 4: Gathering Credible Evidence



A.10 Worksheet 4B – Data Collection Logistics

Data Collection Method/Source	**From whom will these data be collected**	**By whom will these data be collected and when**	**Security or confidentiality steps**
Semi-structured Interviews	Clinic participants	Primary researcher (Kelsi Jessamine)	UBC Ethics

A.11 Checklist for Step 5: Justifying Your Conclusions



A.12 Checklist for Step 6: Ensuring the Evaluation Finding Are Used and Sharing Lessons Learned

Checklist for Step 6: Ensuring That Evaluation Findings Are Used and Sharing Lessons Learned

- [ ] Identify strategies to increase the likelihood that evaluation findings will be used.
- [ ] Identify strategies to reduce the likelihood that information will be misinterpreted.
- [ ] Provide continuous feedback to the program.
- [ ] Prepare stakeholders for the eventual use of evaluation findings.
- [ ] Identify training and technical assistance needs.
- [ ] Use evaluation findings to support annual and long-range planning.
- [ ] Use evaluation findings to promote your program.
- [ ] Use evaluation findings to enhance the public image of your program.
- [ ] Schedule follow-up meetings to facilitate the transfer of evaluation conclusions.
- [ ] Disseminate procedures used and lessons learned to stakeholders.
- [ ] Consider interim reports to key audiences.
- [ ] Tailor evaluation reports to audience(s.)
- [ ] Revisit the purpose(s) of the evaluation when preparing recommendations.
- [ ] Present clear and succinct findings in a timely manner.
- [ ] Avoid jargon when preparing or presenting information to stakeholders.
- [ ] Disseminate evaluation findings in several ways.

A.13 Worksheet 6A – Communicating Results

I need to communicate to this audience	This format would be most appropriate	This channel(s) would be most effective

A.14 Worksheet 6B – Ensuring Follow-up

The following will follow up with users of the evaluation findings	In this manner	This support is available for follow-up

Appendix B: UBC BREB Documents

B.1 CVO Vancouver Program Evaluation Study Information Sheet

Study Title: Evaluation of Community Veterinary Outreach (CVO) Vancouver One Health Clinics

The purpose of this study is to explore participants' healthcare experiences at Vancouver's CVO clinics between January 2019 and March 2020.

What is involved in participating?

After verbally consenting to be part of the study, each participant will be asked a series of questions about their CVO clinic healthcare experiences. Individual interviews will be conducted over the phone. The researcher will be in a private, confidential space during the interview and will record the phone conversation. Recordings of each participant's verbal consent and their interview will be stored in a UBC password-protected computer.

The interview recordings will be transcribed, and all personal information will be removed from participants' answers to the study questions. Only "de-identified" research study documents, with no personal information, will be used by the researchers for this study.

Here are the **research questions** we will ask study participants about their healthcare experiences at the CVO clinics in Vancouver:

1. Can you tell me a little about your pet(s)?
    - Ask for name, breed, age, how long they have had it, any special traits?
2. Tell me about the relationship you have with your pet(s)?
3. Can you tell me about your current housing situation?
4. Do you face any barriers in relation to your pet(s) to accessing housing?
5. Do you face any barriers in relation to your pet(s) to see a doctor, nurse, or dentist?
6. Do you face any barriers in relation to your pet(s)to go/stay in hospital?
7. How do you think your pet(s) affects your health and well-being? How does your health affect your pet?
8. Tell me about your experience at the One Health Clinic?
9. How did you hear about CVO One Health clinics?
10. What CVO One Health services have you used for your pet(s)? For yourself?

11. At the One Health clinic, did you see a nurse, pharmacist, or dental hygienist for yourself? Why or why not?

12. If you saw a nurse, pharmacist, or dental hygienist at the One Health Clinic, what care did you receive?

13. How did attending the One Health Clinic make you feel?

14. How did attending the One Health Clinic influence your own physical health?

15. How did attending the One Health Clinic influence your mental health?

16. What was missing at the One Health Clinic?

17. What can be improved at the One Health Clinics to better support the health of you and your pet?

18. Anything else you would like to add?

19. Questions?

Potential benefits

There are no known individual benefits to participating in this study. A possible community benefit is to find out how CVO clinics can improve their services for clients.

Potential risks

This study does not involve any known emotional risks.

Withdrawal from participation

You are free to choose to participate or not. If you choose not to participate or do not complete the interview, your access to CVO services will not change. You do not have to answer any questions that you not want to. You will have the right to end your participation in the study at any time, for any reason. If you choose to withdraw, all the information you have provided will be deleted. You are free to keep the thank you participation incentive if you withdraw from the study.

Participation incentive

As a token of appreciation, each participant will receive a free large bag of pet food (for their pet) when CVO clinics resume.

Confidentiality

All research data, including audio-recordings and any notes will be protected by password. No real names will be used. Electronic data will be encrypted and password-protected and stored on a UBC password-protected computer. Research documents will only be seen by the researcher (Jessamine) and the research supervisor (MacPhee).

Once the project is completed, all research data will be kept for five years on the UBC password-protected computer. At the end of five years, all research data will be permanently deleted.

Ethics

This research has been approved by UBC Research Ethics Board. If you have any questions or concerns about this study, please contact Dr. Maura MacPhee. You may also contact the UBC Office of Research Services with any research-related questions or concerns.

If you would like to participate in this research project, or have any questions or concerns, please contact Kelsi Jessamine.

B.2 CVO Vancouver Program Evaluation Phone Script

Hello, _____

This is Kelsi Jessamine, one of the coordinators and nurse volunteers for Community Veterinary Outreach (CVO) clinics in Vancouver. I am calling you because you indicated your interest in participating in research projects about the clinics.

I am a Master of Nursing Student at the University of British Columbia (UBC), and I am contacting you about a research study I am doing. I am being supervised by one of the professors at UBC, Dr. Maura MacPhee School of Nursing.

The study I am doing is an interview study. I am doing interviews by phone during COVID-19. I am interested in finding out about clients' experiences with healthcare services at the CVO clinics.

Would you like to hear more about this project?

[If yes, the following is read to the potential participant]

Participating in this study is totally voluntary. You do not need to participate. If you don't want to participate in the study, your use of CVO clinic services will not be affected.

If you agree to be in a phone interview, it will be no more than one hour. I will record your consent to be in the study, and I'll record the interview. This information will be stored in a password protected UBC research computer. Any personal information will not be part of the research study. All personal information, such as your name and contact information, will be removed from any research study documents. Only my supervisor and I will have access to research study information

The questions will be specific to the CVO clinic services. You do not have to answer any questions that you do not want to. You have the right to end your participation in the study at any time, for any reason.

There are no personal benefits from being in this study. A community benefit is finding out more about the CVO clinic services for future improvements.

Once CVO clinics are back in operation, I would like to thank you for your participation by giving you a large bag of pet food. Even if you choose to withdraw from the study, I would like to thank you for your time and consideration by giving you bag of pet food when in-person clinics resume.

This research study has been approved by the University of British Columbia Human Ethics Board-A (108141).

If you have questions, you can contact Dr Maura MacPhee at her research office. You can leave secure messages on her phone if you have questions or concerns. You can also contact the UBC Office of Research services if you have any questions or concerns about this study. I can give you the phone numbers and email addresses for you to contact Dr. MacPhee and the UBC Office of Research.

Thank you for your time. If you would like to participate in the study, I will set up a time with you to record your consent and the interview.

I would be happy to email you a copy of the study description, if you have an email address to share.

B.3 CVO Program Evaluation Email Script

Subject: Invitation to participate in a CVO clinic research project

Dear _____,

The University of British Columbia (UBC) is working in partnership with Community Veterinary Outreach (CVO) to complete a program evaluation of the Vancouver One Health Clinics. This research study is part of a Master of Nursing Degree thesis project and is supervised by Dr. Maura MacPhee at the UBC School of Nursing (SoN).

I am inviting you to participate in a research study that is part of a Master of Nursing thesis project at the University of British Columbia. Dr. Maura MacPhee at the UBC School of Nursing is my thesis supervisor.

I would like to know about client experiences at the Community Veterinary Outreach (CVO) clinics in Vancouver. I am contacting you because when you visited one of the CVO clinics between January 2019 and March 2020, you indicated that you would be interested in research study participation.

If you would like to participate in this study, I will contact you by phone and discuss the study with you. I will ask for your consent over the phone to be part of the study. I'll set up a day and time that's convenient for you, and I'll ask you questions over the phone.

If you agree to be part of the study, I will record our phone conversation for research purposes. I am only interested in your experiences with healthcare services at the CVO clinic.

You are free to choose to participate or not. If you choose not to participate or do not complete the interview, your access to CVO clinic services will not change. You do not have to answer any questions that you do not want to. You will have the right to end your participation in the study at any time, for any reason.

I have attached the Study Information sheet with more details about the study. This research has been approved by University of British Columbia Research Ethics Board. If you would like to participate in this research project, or have any questions, please contact me.

Sincerely,
Kelsi Jessamine

B.4 CVO Vancouver Program Evaluation Verbal Consent

VERBAL CONSENT FORM

Due to COVID-19, verbal consent will be obtained after sharing the study cover letter by email whenever possible. At least 48 hours will be allowed for potential participants to review the study documents sent via email or discussed over the phone before obtaining verbal consent for the study and conducting phone interviews. A goal is to obtain verbal consent and to conduct the interview at the same time.

Background information for verbal consent:

Title: Evaluation of Community Veterinary Outreach (CVO) Vancouver One Health Clinics

Purpose: This study will explore the healthcare experiences of clients at Community Veterinary Outreach (CVO) Vancouver clinics between January 2019 and March 2020.

Researchers: The researcher for this study is Kelsi Jessamine, a graduate nursing student being supervised of Dr. Maura MacPhee in the University of British Columbia (UBC) School of Nursing.

Ethics approval was obtained in March 2021 and expires in March 2022.

Study Details: A phone interview will be no longer than one hour. I (Jessamine) will record your verbal consent to participate and your interview using a digital recorder and my phone as a back-up. These recordings will be encrypted and transferred to a UBC password-protected computer. I will delete the recordings from the digital recorder and phone after transfer is done.

Potential Benefits

There are no known individual benefits from being in this study. A potential community benefit is learning ways to improve CVO clinic services.

Potential Risks

All personal information will be removed from our research documents. Only the research supervisor and I, the student researcher, will have access to password-protected data on the UBC research computer. No information resulting from the study will have any personal information. The questions only pertain to clients' healthcare experiences at CVO clinics.

Withdrawal from participation

You are free to choose to participate or not. If you choose not to participate or do not complete the interview, your access to CVO services will not change. You do not have to answer any questions that you do not want to. You have the right to end your participation in the study at any time, for any reason. If you choose to withdraw, all the information you have provided will be destroyed.

Participation incentive

As a thank you, participants will receive a large bag of pet food (for their pet) when the CVO clinics resume operation. If you choose to withdraw from the study at any time, you will still receive the free bag of pet food.

Confidentiality

All electronic data are encrypted, and password protected. Data will be stored on a password protected UBC computer. Once the project is completed, all research data will be kept for five years on the research computer and will be permanently deleted at the end of the five years.

Use and availability of final research

This research is part of my Master of Nursing thesis work. Electronic and hard copies of the thesis and brief summaries will be available to participants and to other interested parties after successful approval of the thesis by my thesis committee.

Research Questions

If readers have questions or feedback regarding this study, you may contact Dr. Maura MacPhee. You may also contact the UBC Behavioural Review Ethics Board (BREB) by phone or via email.

[Participants will be asked by the researcher if they have any questions or concerns prior to asking for their consent.]

Audio-recorded consent to participate in this research:

If you agree to participate in this study, please say "I [Name of Participant] agree to participate in this research project."

Oral consents of recorded by

_____

[Name of Researcher]

_____

Signature of researcher Date:

B.5 CVO Vancouver Program Evaluation Interview Guide

Introductions, review of purpose of interview, confidentiality, audio recording and consent

To ensure confidentiality, we will be using fake names in our transcripts. Is there is a name you would like us to use for you or do you prefer we make one up?

2. Can you tell me a little about your pet(s)?
    - Ask for name, breed, age, how long they have had it, any special traits?

20. Tell me about the relationship you have with your pet(s)?

21. Can you tell me about your current housing situation?

22. Do you face any barriers in relation to your pet(s) to accessing housing?

23. Do you face any barriers in relation to your pet(s) to see a doctor, nurse, or dentist?

24. Do you face any barriers in relation to your pet(s)to go/stay in hospital?

25. How do you think your pet(s) affects your health and well-being? How does your health affect your pet?

26. Tell me about your experience at the One Health Clinic?

27. How did you hear about CVO One Health clinics?

28. What CVO One Health services have you used for your pet(s)? For yourself?

29. At the One Health clinic, did you see a nurse, pharmacist, or dental hygienist for yourself? Why or why not?

30. If you saw a nurse, pharmacist, or dental hygienist at the One Health Clinic, what care did you receive?

31. How did attending the One Health Clinic make you feel?

32. How did attending the One Health Clinic influence your own physical health?

33. How did attending the One Health Clinic influence your mental health?

34. What was missing at the One Health Clinic?

35. What can be improved at the One Health Clinics to better support the health of you and your pet?

36. Anything else you would like to add?

37. Questions?

Appendix C Data from Interview Questions

C.1 Participant Demographic Information (1/2)

Participant name	Age	Pronoun	Race	Marital Status	Income Source	Health Concerns	Flu Vaccine	COVID Vaccine
Supergirl	74	she/her/hers	European decent	single	CPP	depression, previous broken injury, artificial hips	No	No
	30	they/them/theirs	middle eastern	Single	Disability	depression, back pain	No	No
	25	he/him/his	European decent	Single	Disability	depression, sex change	Yes	Yes
	56	she/her/hers	European decent	Single	Disability	depression, anxiety	No	Yes
	64	she/her/hers	Indigenous	Single	Disability	depression, anxiety	No	Unsure
	55	she/her/hers	Indigenous	Single	Disability	fibromyalgia and arthritis, anxiety	No	Unsure
	60	she/her/hers	Indigenous	Single	CPP and PWD	depression, anxiety	No	Unsure
	56	he/him/his	European decent	Single	Disability	depression, anxiety, HIV	Yes	Yes
	64	she/her/hers	European decent			bronchitis, hip replacement,	No	Yes
Average age	53.8							

C.2 Participant Demographic Information (2/2)

Participant name	Housing	Length of time at address (years)	Unstable housing	# of ppl financially responsible for	Family Doctor	Healthcare in last 6 months
	Permanent	Unknown	1997-2200 (friend's basement after back injury)	1	No	walk-in clinic, pharmacy, eye care
	Temporary	2 years	currently	1	No	CHC, dental clinic, pharmacy
	Permanent	1 year	3 years ago - shelter in Calgary and then SRO in Vancouver	1	Yes- NP	CHC, hospital, pharmacy, gender outpatient clinic
	Permanent	16 years	n/a	1	Yes- NP	CHC
	Permanent	31 years	n/a- abusive partner	1	Yes-NP	N/A
	Permanent	8 years	house fire 10 years ago --> shelter	3	Yes	GP, pharmacy, non-profit, crisis line, suicide support
	Permanent	5 years	2020- 5 years in shelter (eviction due to dog)	1	Yes	GP, pharmacy, non-profit, crisis line
	Permanent	4 years	4 year ago, prison	1	Yes	CHC, pharmacy, dental clinic, HIV specialist, RT
	Permanent	5 years	5 years ago	1	Yes	CHC, pharmacy, hospital, ems

C.3 Pet Demographics

Name	Age	Species	Length of ownership	Adoption location
Buddha	15	dog		found through FB - rescue from Mexico
Lucky	15	dog	5	craigslist
Sunshine		cat		
SchNOWzer	11	dog	7	rescues while previous owner was incarcerated
Camellia, Diego, Salida, and Prosetto	7	cat	7	sister purchased cat for client while in hospital
Spiritbear, Button. Lilo	4, 10, 1.	dog /cat /cat	10, 4, 1.	
Bella	12	dog	11.5	daughter's friend with an abusive boyfriend
Vito	2	dog	2	rescue from Mexico
Blackie	7	cat	7	kitten in building

C. 4 Perceived Relationship with Pet (1/2)

Positive			Negative
Family	**Purpose**	**Comfort**	**Liability**
only close family	"hey, they totally change your life, ya know"	they are just the best thing	chronic health conditions
best buddy	"didn't go outside before the dog"		
kid		"he's a little fluff ball and I like his company"	separation anxiety
"Especially if your only close by family is your pet’			hand feed
			diaper
			"a lot of me taking care of him"
			"demanding of my attention sometimes"
"my everything, my whole world"	"my everything, my whole world"	"he's perfect"	
			go without for his meds
family	"He’s my whole life.”	"I just like to have him with me at all times"	
company	"I can’t disappear for days"	"less lonely"	
"he’s uh really important to me to have around the house"	It makes me more responsible for sure, because I have to care for her and her needs""		

C.5 Perceived Relationship with Pet (2/2)

Positive			Negative
Family	**Purpose**	**Comfort**	**Liability**
"my daughter is so attached to her cats, and my son the same thing, his dog is always with him. They love their animals”		attachment	
		emotional support	
		emotional regulator	
constant companion	little bit of responsibility for all he gives me	"I'd be lost without him"	
reward for sobriety	"All I know is I’d be lost without him."	"Helped keep me sober"	
he's my kid			
“My children, my human children are really jealous of fur babies”		keeps me happy	
		my emotional support animal	
		See her reaction to what I am feeling, straightens me up. She will come snuggle me if I am feeling sad at night or day, she will come sit with me. She is really quiet about her movements which is really nice.”	

C.6 Perceived Impact of Pet on Health (1/2)

Positive		Negative	
Mental Health	Physical Health	Mental Health	Physical Health
Supporter	Motivator	Barrier	Barrier
"depression is better"	"didn't go outside before the dog"		
"therapy dog"	Gets me outside		
"healthier person"	"I participate in things more"		
"I participant in things more, like this thing you're doing"			
			".. I'll have to admit it might be negative in some ways. Where ugh I prioritize his health over mine… but at the same time getting up to feed him is a reason for me to get up at all."
"Reason to get out of bed at all"	"Reason to get out of bed at all"		Prioritize pet's health
"Gets me outdoors"	"Gets me outdoors"		
companionship, "he's perfect"	"we go for family walks. It's helping with the diet too and the exercise"		"sometimes I go without certain things to afford his medication"
structure			
"not as lonely when she is around"			
social facilitator	"go out to walk around""		
"know when I am not feeling good"	"exercise"		
"sensitive to my mood"			
"calms me"			

C.7 Perceived Impact of Pet on Health (2/2)

Positive		Negative	
Mental Health	Physical Health	Mental Health	Physical Health
Supporter	Motivator	Barrier	Barrier
"little securities"	"get me outside"		
"helps my daughter with her anxiety and her stress"	"get me moving"		
"She has night terrors and…. so I really think her cats really help her"			
something to love			
"keeps the kids grounded"			
"keeps them healthy because they have something to love and to do and to take care of "			
"keeps me happy"	"we go for walks"		
"she’s turned into my emotional support animal"			
	more mobile""		
"good for my mental health""	"have to go out for walks"		
"stabilized my MH"			
emotional regulator			

C.8 Reported Impact of Pet on Housing

	Positive	No effect	Negative
Participant	**Facilitator**		**Barrier**
1			doctors note for pet 1-year time to get the dog into housing
2			evicted unstable housing
3		has no been an issue	
4			can only have 1 cat couldn't have a cat in shelter or SRO pet policy
5			one pet policy
6			could not have a pet while in shelter or SRO
7		has not been an issue	
8			could not have a pet while in shelter or SRO one pet policy
9		has not been an issue	

C. 9 Perceived impact of Pet During COVID

	Positive	**Negative**
Participant	**Support**	**Stressor**
1	company	
2	companion: reason to get out of bed	
3	"I don't want to know what it would have been like without him"	
4	mitigates loneliness	
5	keeps us grounded	worried about health of cat
6	reason I go out at all	
8	constant companion emotional regulator	
9	company talks to me	

C.10 Perceived Accessibly to Human Health Care Services

	Positive	**Negative**
Participant	**Facilitator**	**Barrier**
1	Nice staff	Transportation
		EMS accessing building
		Wait times
2	Can bring my dog	Distance
	One stop shop	
	CHC/MH team	Transportation
		Weekend care
		Pet care during hospitalization
3	CHC	Surgical wait times
	bring dog to clinic	
	improved care in Canada in comparison to Lebanon	
4	LGBTQ group	no STI testing w COVID
	transit pass	services d/c with COIVD
	CHC	fee for doctors note in Calgary
		undiagnosed medical condition as kid
	youth drop in	
	NP at youth services	
5	good care in hospital	location
		pet care
6	one health model	accessible is difficult
		wait times
		don't know where to turn for help
		no transportation
7	one health model	doctor judgmental
		location

C.11 Experience at CVO Clinic

Participant	Structure of Clinic	Quality of Care	Staff Interactions
1		I always worry about paying for the vet	really nice
2	really like the idea of One Health great way of people getting their needs met		really nice
3	staff was amazing	"lifted my spirits, warmed my heart"	
4	organized great	appreciate the offered services	
5	One Health is fantastic and makes so much sense	helpful	good with everyone
6	smooth	relatively quick	happy
7	Wonderful One Health is A great idea	"Took care of me, even though I was late"	wanting to help helpful
8	really good	really good	
9	good	good	nice

C.12 How Clients Learned about Vancouver One Health Clinic

Participant	Poster	Friend	Social Media	Email	Phone	Community Centre
1	X					
2	X					
3	X					
4	X					
5	X					
6	X					
7	X	X	X			
8	X					
9	X					

C.13 Pet care Received at Vancouver One Health Clinic

Participant	Exam	Vaccines	Nail trim	Pet Food	Pet Supplies	Treatment	S/N
1	X		X	X	X	X	
2	X		X	X		X	
3		X		X		X	
4	X	X	X	X		X	
5		X	X	x	X	X	
6	X			X	X	X	
7		X	X	X		X	
8	X	X	X	X	X	X	
9							

C.14 Accessed Human Health Care Services at Vancouver One Health Clinic

Participant	Nurse	Pharmacist	Dental Hygienist	Clothing and Food
1	X			
2	X		X	X
3	X		X	X
4				
5	X			
6				
7	X			
8	X			X
9	X			

C.15 Reported Impact of Attending Vancouver One Health Clinic

Participant	Supported	Cared for	Connected
1	X	X	X
2	X	X	X
3	X	X	X
4	X	X	X
5	X	X	X
6	X	X	X
7	X	X	X
8	X	X	X
9	X	X	X

C.16 Participant Perceived Impact of Attendance to One Health Clinic on Physical Health

Participant	Motivator	No effect	Negative
1	X		
2	X		
3		X	
4	X		
5		X	
6		X	
7		X	
8	X		
9		X	

C.17 Participant Perceived Impact of Attendance to One Health Clinic on Mental Health

Participant	Connection	Relief
1	x	x
2	x	x
3	x	x
4	x	x
5	x	x
6	x	x
7	x	x
8	x	x
9	x	x

C.18 Perceived Value of One Health Clinics

Participant	What was missing	Additions
1		medication samples
2	nothing	scheduled clinic date bus tickets/transpiration
3	“nothing, not a thing”	earlier advertising
4	nothing	earlier advertising
5	“absolutely nothing”	separating cats and dogs in waiting area
6	“can’t think of anything”	
7		they should have them more often
8	nothing	hairdresser
9	nothing	

C.19 Re-attendance to One Health Clinic

Participant	Yes	No
1	of course	
2	yes, my roommate was even asking	
3	"I have been waiting for when they will reopen."	
4	absolutely, as soon as you have one let me know	
5	yes, I would	
6	YES!	
7	yes	
8	yes	
9	yes	