



Canadian Digital Service  
Service numérique canadien

Canada

# Claim Tax Benefits

March 2020

<https://claim-tax-benefits.azurewebsites.net/start>

# Overview

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- Why the partnership began
- What we did
- What we found
- How we work
- What we built
- Would this improve services to tax-filers?

# **Why the partnership began**

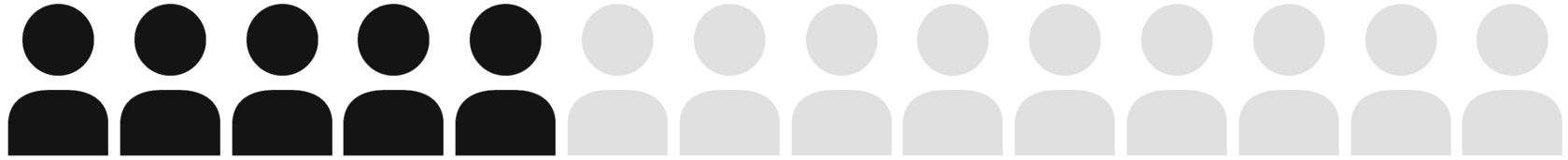
According to the 2016 Census, **there are 13.4 million individuals\* across Canada with income below \$35,000.**



Of those, in 2018, the volunteer tax clinics were able to help 741,460 individuals receive benefits they were owed.


\* Over 17 years of age

# Many individuals are still left behind.



For individuals and families with a limited income, benefits reduce poverty levels and improve quality of life.

# ***Our Challenge***



**How can we help  
people with low income  
file taxes to access CRA  
benefits and refunds?**

**What we *did***



# Conducted research



Reviewed existing  
CRA research.  
Collaborated with  
CRA service team.



Interviewed and  
tested with tax-filers  
at tax clinics, food  
banks and homes.

152

Surveyed

82

people interviewed

11

studies conducted

# **What we *found***

# 1. Tax-filers report great anxiety

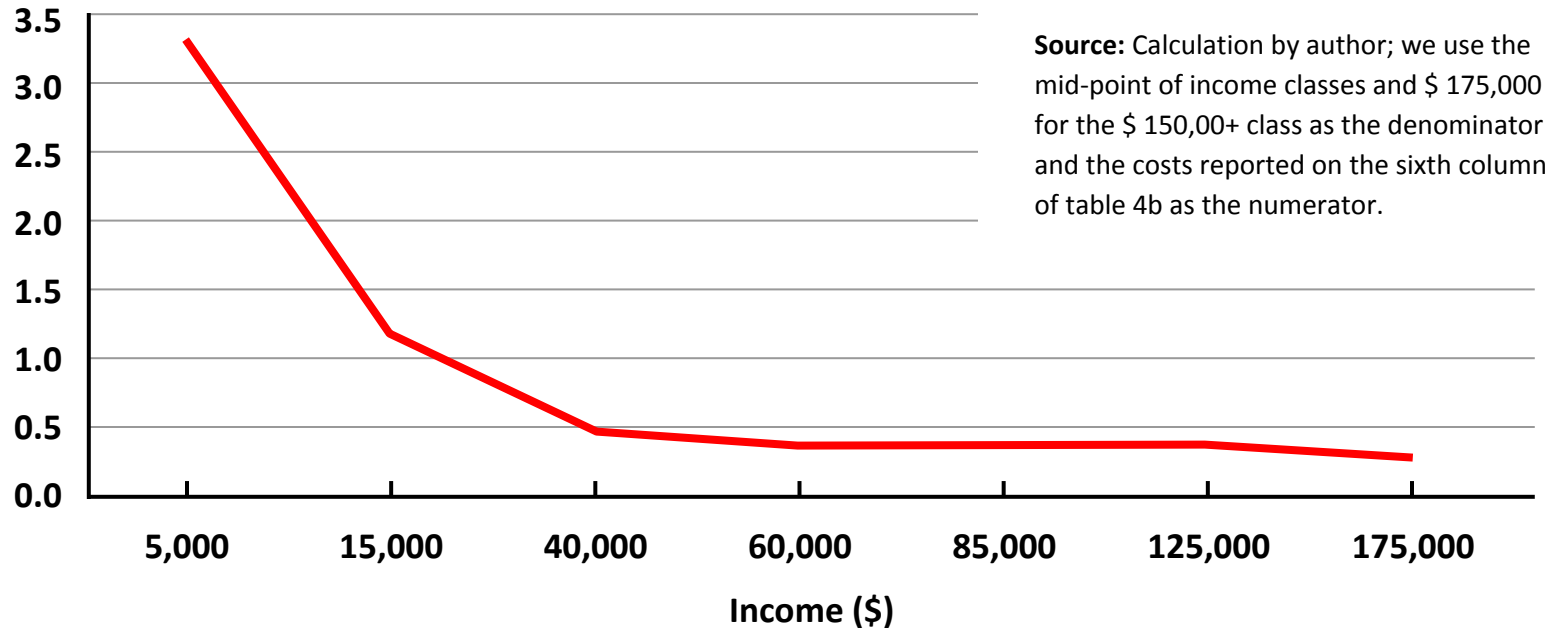


**“Panic. Oh— panic.  
Sheer Panic. I just wanted  
to get it over with...  
I didn’t want to deal  
with the conflict.”**

*— Feelings of a **Canadian tax-filer**  
about opening a letter from CRA*

## 2. People with low income pay a disproportionate cost

Ratio (%) of all compliance costs to income, seven income categories



### 3. People lack the confidence to file alone



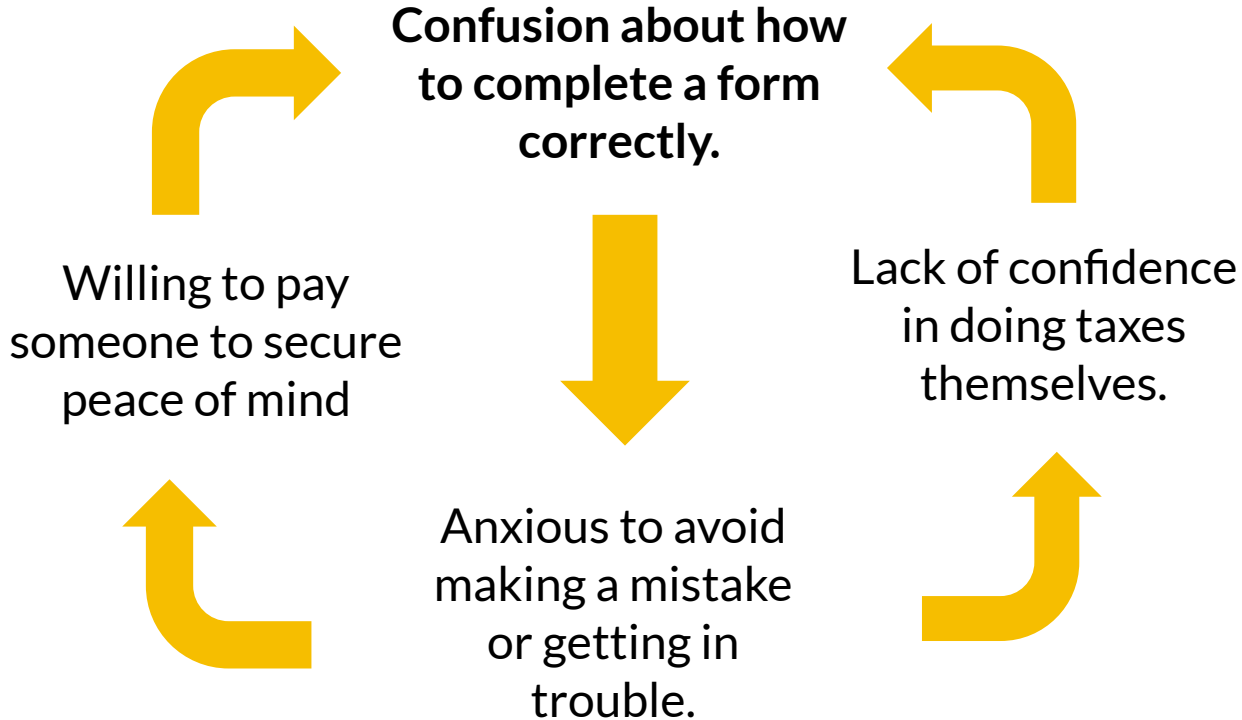
**“Good god, no.  
I might screw it up.  
The tax agency guy  
would be out there.”**

**— *Canadian tax-filer***

*(When asked if they would  
file by themselves)*

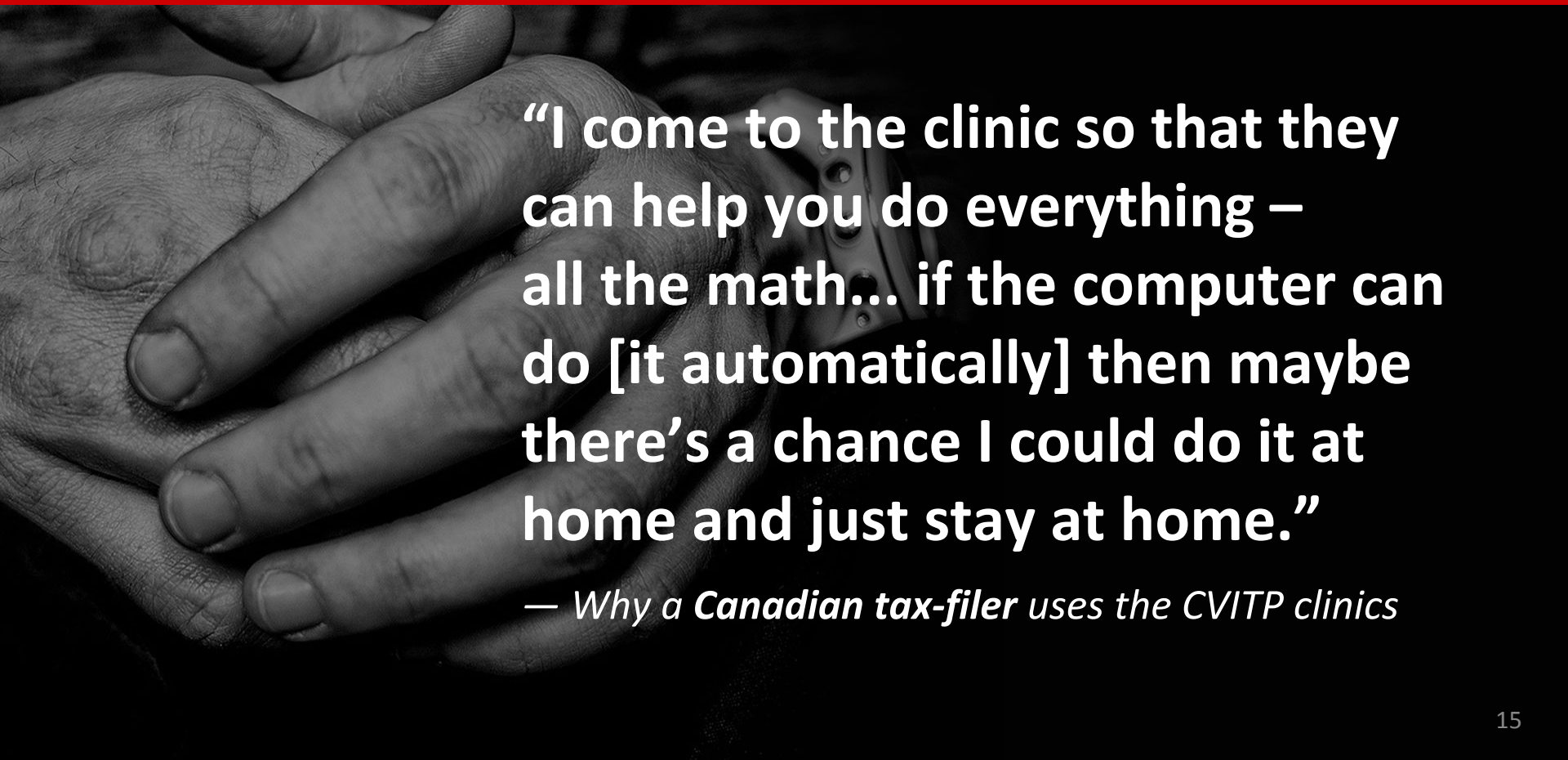
## Result: A vicious cycle

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## 4. Filers want either clinics or a simplified service

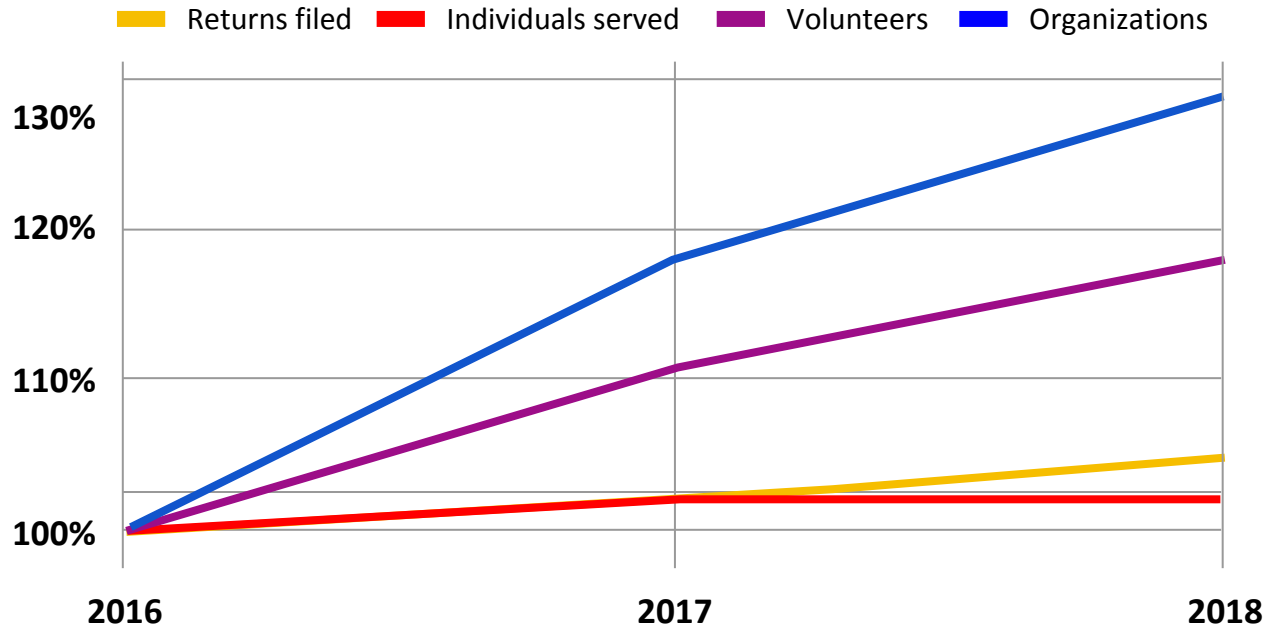


**“I come to the clinic so that they can help you do everything – all the math... if the computer can do [it automatically] then maybe there’s a chance I could do it at home and just stay at home.”**

**— *Why a Canadian tax-filer uses the CVITP clinics***

## 5. Tax clinics do not scale

% of growth in volunteers,  
organizations, people served and returns filed



Adding clinics and volunteers does not translate to a proportionate increase in the number of returns filed or people helped.

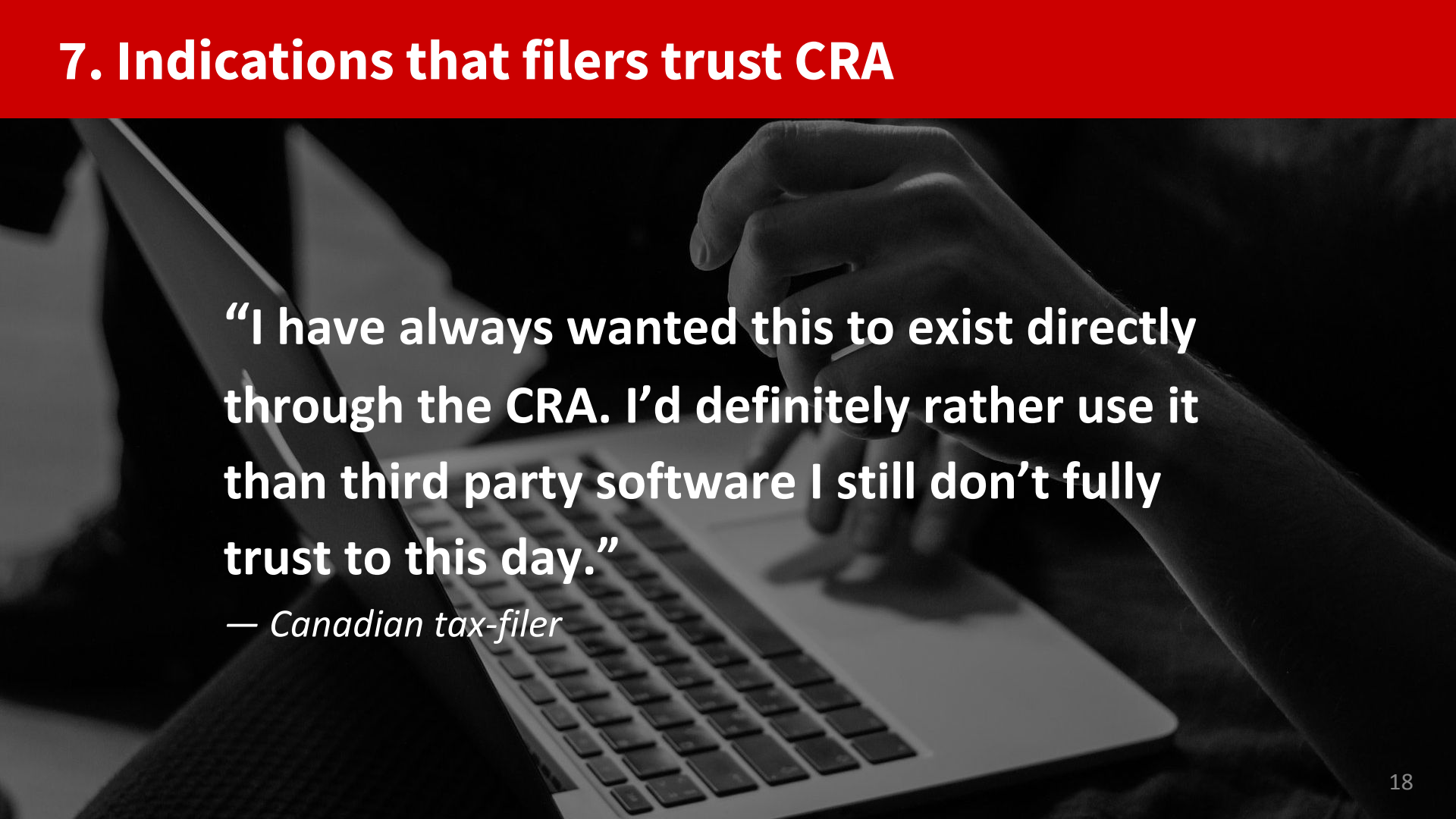


## 6. Tax clinics are not accessible to everyone

**“I don’t get to the mail very much because it’s difficult to get out especially if it’s icy. For me it’s hard and I tend to not go out for that reason.”**

**— *Canadian tax-filer***

## 7. Indications that filers trust CRA



**“I have always wanted this to exist directly through the CRA. I’d definitely rather use it than third party software I still don’t fully trust to this day.”**

*— Canadian tax-filer*

## The importance of our findings were further validated by:

- 2019 CRA consultations, which concluded that **Canadians want to see real change**
- 2019 Minister of National Revenue Mandate Letter...

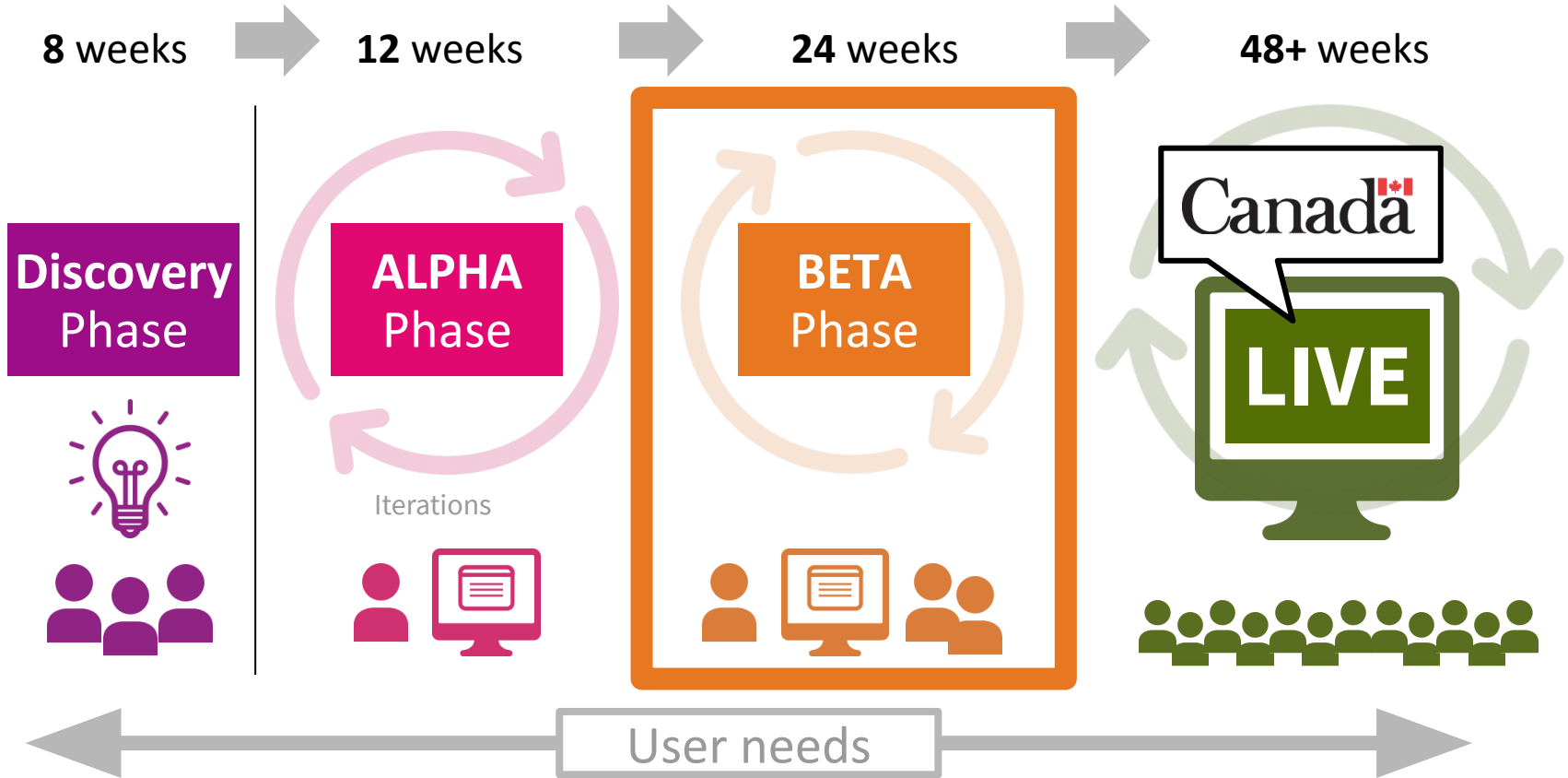
I will expect you to work with your colleagues and through established legislative, regulatory and Cabinet processes to deliver on your top priorities. In particular, you will:

- Continue your work to modernize the Canada Revenue Agency (CRA) and make it client-based, including to:
  - Reduce the burden on Canadians by leveraging data and emerging technologies;
  - Proactively contact Canadians who are entitled to, but are not receiving, tax benefits;
  - Offer to complete returns for some clients, particularly lower-income Canadians and those on fixed incomes whose financial situation is unchanged year to year;
  - Support more Canadians who wish to file taxes using no paper forms; and
  - Ensure correspondence and other communications are straightforward and easy to read.

# **Our *Goal***

To build a service that  
**people with low  
income can use  
themselves** to file taxes.

# How we *Work*

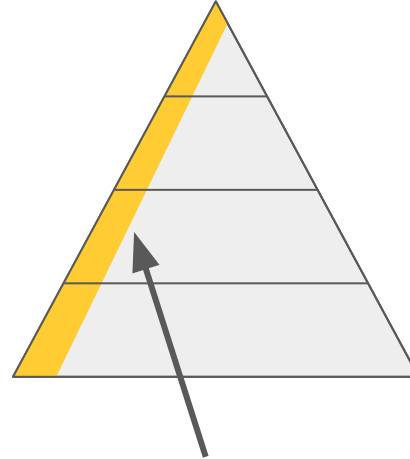




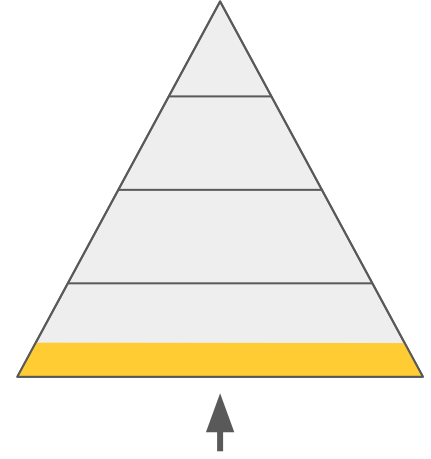
# For our Minimum Viable Product we started small

## We targeted individuals who

- Have no taxable income
- Are single/divorced/widowed
- Have no dependent children
- Are not students
- Live in Ontario



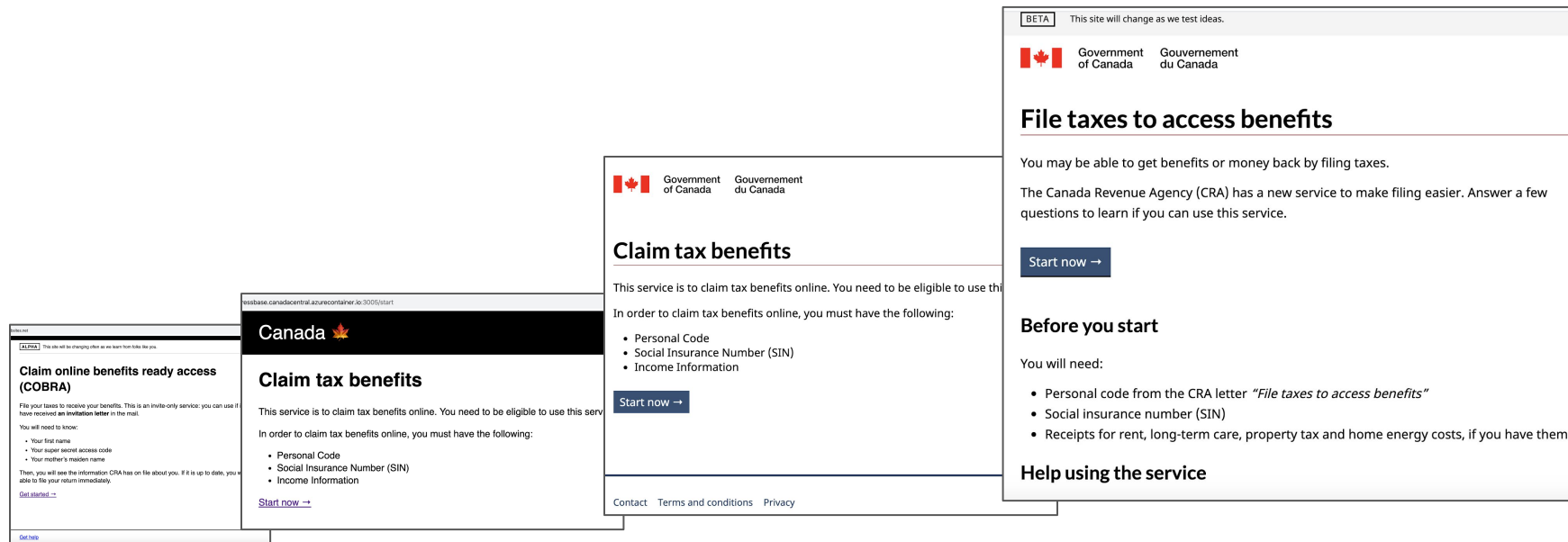
**THIS**  
(mvp)



**NOT THIS**  
(Traditional approach)

We could help up over **500,000** individuals by releasing our MVP service.

# Build client-centered service through iteration



April

July

September

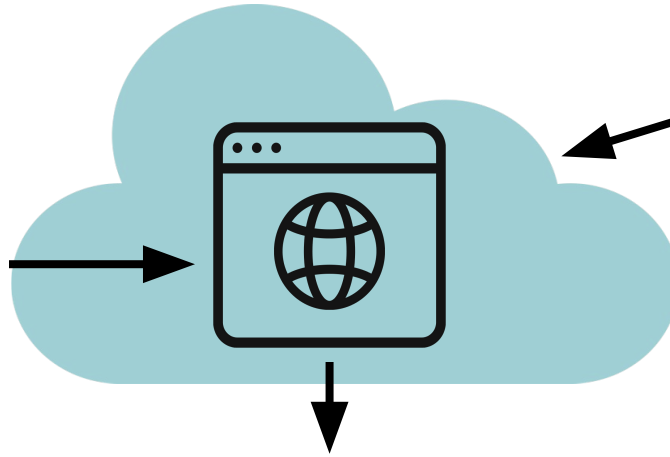
January

# Tech choices



Tax-filer (internet)

Uses this service



Frontend interface

*Cloud web application (MS Azure) to incorporate with CRA back-end API*

*Allows for frequent deployments*

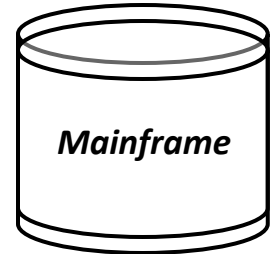
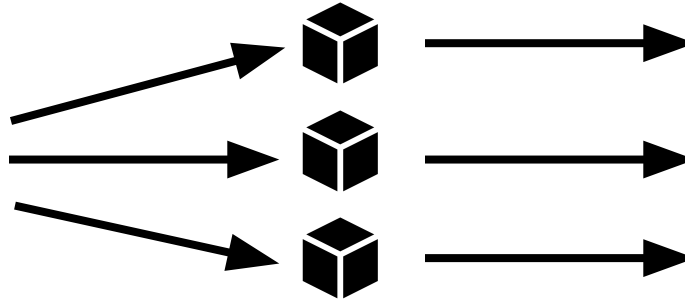
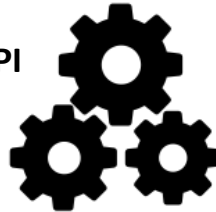
GC Cloud access point  
(GC-CAP)



Canada Revenue Agency

*API to interoperate with existing CRA downstream services*

API



Mainframe

# We moved quickly

Operation name	Status	Time	Time stamp
> ⓘ Update web sites config	Succeeded	2 h ago	Tue Mar 03 2020 ...
> ⓘ Update web sites config	Succeeded	2 h ago	Tue Mar 03 2020 ...
> ⓘ Update web sites config	Succeeded	19 h ago	Mon Mar 02 2020...
> ⓘ Update web sites config	Succeeded	19 h ago	Mon Mar 02 2020...
> ⓘ Update web sites config	Succeeded	23 h ago	Mon Mar 02 2020...
> ⓘ Update web sites config	Succeeded	23 h ago	Mon Mar 02 2020...
> ⓘ Update web sites config	Succeeded	1 d ago	Mon Mar 02 2020...
> ⓘ Update web sites config	Succeeded	1 d ago	Mon Mar 02 2020...
> ⓘ Update web sites config	Succeeded	4 d ago	Fri Feb 28 2020 1...
> ⓘ Update web sites config	Succeeded	4 d ago	Fri Feb 28 2020 1...

**multiple  
deployments  
per day**

**~12 mins  
to release  
a new version**

# We moved quickly *in a safe way*

With every change, we did



## 1. Automated tests

- **600+** logic tests
- Accessibility tests on **40** pages
- User flow tests on **4** different journeys

## 2. A final manual test to make sure it worked as expected

6 checks passed		
✓	Lint Dockerfile	<a href="#">Details</a>
✓	Scan for secrets	<a href="#">Details</a>
✓	Run tests (10.x)	<a href="#">Details</a>
✓	Run tests (12.x)	<a href="#">Details</a>
✓	LGTM analysis: JavaScript No new or fixed alerts	<a href="#">Details</a>
✓	security/snyk (obrien-j) No manifest changes detected	<a href="#">Details</a>

```
Test Suites: 17 passed, 17 total
Tests:      630 passed, 630 total
Snapshots:  0 total
Time:       27.963s
Ran all test suites.
```

 nmakuch approved these changes 17 minutes ago

nmakuch left a comment

Member + 😊 ...


nice, looks good to me 👍

**By moving quickly *we got better data***



In the **2 days** between user testing sessions  
we were able to build and deploy **13**  
**improvements.**

This resulted in new research findings that gave us better insight into how our users would use this service.

A thick yellow vertical bar is positioned on the left side of the slide, spanning most of the height of the text area.

At all stages of  
development, **we need**  
to be able to **react**  
**quickly**

# What we *Built*





## File taxes to access benefits

You may be able to get benefits or money back by filing taxes.

The Canada Revenue Agency (CRA) has a new service to make filing easier. Answer a few questions to learn if you can use this service.

Start now →

### Before you start

You will need:

- Personal code from the CRA letter *"File taxes to access benefits"*
- Social insurance number (SIN)
- Receipts for rent, long-term care, property tax and home energy costs, if you have them

**We use plain language.**  
We layout the pages clearly.

BETA This site will change as we test ideas.

 Government of Canada / Gouvernement du Canada [Français](#)

[Go back](#)

Screening questions (Step 1 of 7)

## 2019 income

Was your 2019 income less than \$12,070?

☐ Yes

☐ No

[Continue](#) [Cancel](#)

**We put one question per page.**

We only present the questions that are relevant to this population.

We use a consistent pattern of yes or no questions.

*Current iteration*

BETA

This site will change as we test ideas.



Government  
of Canada

Gouvernement  
du Canada

Français

[Go back](#)

## Rent for the home where you usually lived

The next pages ask about your "principal residence". "Principal residence" means your main home, where you usually lived.

If you paid costs for several homes at the same time, only include costs for the main home where you usually lived.

The questions start with rent.

At any time in 2019, did you pay rent for your principal residence?

☒ Yes

☐ No

[Learn about principal residence](#)

Continue

[Cancel](#)

[Contact](#) • [Terms and conditions](#) • [Privacy](#)


Canada

**We ask questions  
people can answer.**

People easily stuck on tax  
questions.

We ask questions about them  
not about taxes.

*Current iteration*



Canada Revenue  
Agency

Agence du revenu  
du Canada

File taxes

Step 1: Give your personal information

Name: Timmy T

Mailing address: 123 Fake Apt 12, R Toronto, A1B 2C3

Province or territory:

☐ You live here
 ☐ You live about

Social insurance number (SIN):

Year

Date of birth:

Your marital status on December 31, 2018:

☐ Married
 ☐ Divorced

Spouses or common-law partners: each spouse must file a separate tax form or a regular tax form.

Give your spouse or partner's information:

Partner's first name and initial:

Partner's last name:

Partner's SIN:

File taxes

Need help?

Visit: [canada.ca/taxes-help](https://canada.ca/taxes-help)

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TTY (text telephone): 1-800-665-0354

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**We provide a Paper  
and a Digital channel  
for the service.**

**Let's take a *look***

<https://claim-tax-benefits.azurewebsites.net/start>

**Would this improve  
services *to tax-filers*?**

# We tested our proposed service through mixed methods research



## Assessed through a quantitative study

- Online test of 72 tax-filers with an income less than \$13K

## Refined through qualitative studies

- Content test of current design
- Multiple rounds of usability tests including a test using tax-filers **own data**

# Research *findings*



Most people would consider or definitely switch:

80%

Of people who currently file themselves\*

---

74%

Of those who currently get help

\* Both figures +/-12%

- Tax-filers find it easy to know how to file with the service (4.5 / 5)
- **60%** of respondents spontaneously commented that the service is easy to use.

**“Was  
extremely  
easy and  
quick.”**

— *Canadian tax-filer*

**«Très simple et pas d'autre  
intermédiaire facile et direct.»**

— *Canadian tax-filer*

**“It was short, easy to understand,  
easy to fill out. I love it!”**

— *Canadian tax-filer*

- Tax-filers report high confidence that they can do their taxes themselves with this service (4.2 / 5).

**“I like this.  
I'd get someone  
to help me but  
if I was on my  
own, I'd do this.”**

— *Canadian tax-filer*

**“I would want to switch,  
it is easier, faster and cheaper.  
could do it myself no problems.”**

— *Canadian tax-filer*

---

**“ridiculously easy”**

— *Canadian tax-filer*

**“I like getting my taxes done as fast as possible but then have to go to the post office, buy the stamp. I have financial issues and mobility issues. But this way it's done through a CRA service and it's free.”**

*— Canadian tax-filer*

8%

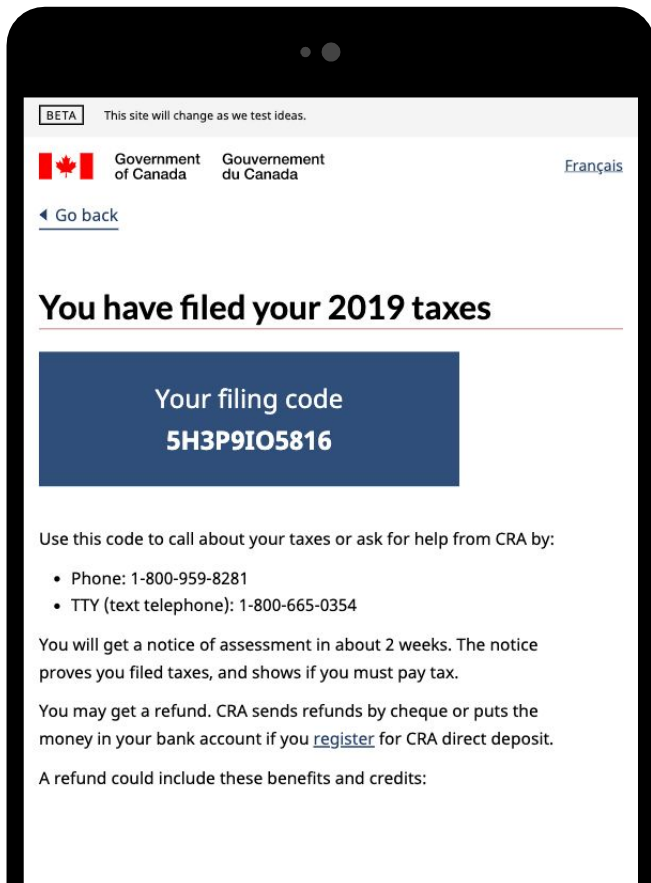
Of people **spontaneously** wrote into a comment box that **the reason they would switch** to this service is that it is from CRA.

**“I like that the CRA provides this survey. It gives me more confidence that everything is proper and accurate. I like that it's a free service that I can also trust because it's the CRA itself. I would be more skeptical of a third party providing a free service for taxes.”**

*— Canadian tax-filer*



# Vicious cycle broken



“It appears to be easy to use and understand. I would prefer not to have to spend the increase [amount] each year when filing for my income tax. The form appears to be quick to finalize the refund and a print out. **If it were this simple even I could do this income tax return.**”

— *Canadian tax-filer*



To start helping people,  
we would need *a clear  
path to production*

# What could happen next ?

---

**If all blockers to the partnership were removed, we could:**

- Complete the build of the MVP service
- Conduct a controlled pilot in a tax clinic to further refine the service
- Assess results and iterate as needed
- Pilot a first release with 1000 pre-identified late filers



Questions?



Canadian Digital Service  
Service numérique canadien

Canada

## Connect with us:



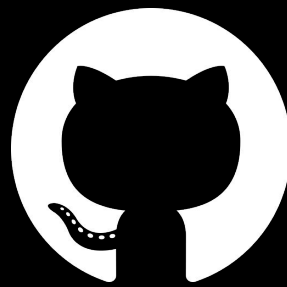
**Website**

[digital.canada.ca](https://digital.canada.ca)



**Twitter**

[@CDS\\_GC](https://twitter.com/CDS_GC)



**GitHub**

[github.com/cds-snc](https://github.com/cds-snc)



**LinkedIn**

[linkedin.com/  
company/cds-snc](https://linkedin.com/company/cds-snc)