<v>Thanks.</v> <v>Thank you for your help.</v>

<v>Hey, Ericka, how are you?</v> <v>Good, how are you?</v> <v>Good, thank you.</v>

<v>Hey-</v> <v>So you must be Vilma?</v>

<v>Yes, I’m Vilma.</v> <v>Hello,</v> 

<v>Nice to meet you. (laughs)</v> <v>Hello, Spanish... (laughs)</v>

<v>Yeah, I just came to welcome you.</v>

<v>So I know trying set up with your presentation, </v>

<v>but I would wanna have a chance to join you</v> and Donna

<v>I’m so late, so we can’t have that now.</v>

<v>Some other time.</v> <v>I’d love to hear more.</v> <v>We’re working on many things.</v> 

<v>I’d love to hear more.</v> <v>and of course I’ll learn a lot now, </v>

<v>I know you’re doing a lot of education-</v> <v>Well, you know...</v>

<v>I just wanna...</v>

<v>Yeah, that’s good.</v> <v>Some other time. </v> <v>Well, remember, </v> <v>it’s my treat. </v> <v>Okay, thanks very much.</v>

<v>I really appreciate.</v> <v>We’re ready to turn,</v>

1 00:00:00.000 --> 00:00:03.250 (attendees chattering)
2 00:00:14.974 --> 00:00:19.057 (attendees chattering continues)
3 00:00:22.566 --> 00:00:25.483 <v>Thanks.</v> <v>Thank you for your help.</v>
4 00:00:28.340 --> 00:00:30.606 <v>Hey, Ericka, how are you?</v>
5 00:00:30.606 --> 00:00:33.206 <v>Good, how are you?</v> <v>Good, thank you.</v>
6 00:00:33.206 --> 00:00:34.937 <v>Hey-</v> <v>So you must be Vilma?</v>
7 00:00:34.937 --> 00:00:36.840 <v>Yes, I’m Vilma.</v> <v>Hello,</v> 
8 00:00:36.840 --> 00:00:37.860 my name is Luke Davis.
9 00:00:37.860 --> 00:00:40.788 Nice to meet you. (laughs) <v>Hello, Spanish...</v> (laughs)
10 00:00:40.788 --> 00:00:42.903 <v>Yeah, I just came to welcome you.</v>
11 00:00:44.046 --> 00:00:47.560 So I know trying set up with your presentation, 
12 00:00:47.560 --> 00:00:49.726 but I would wanna have a chance to join you 
13 00:00:49.726 --> 00:00:51.309 for dinner tonight? 
14 00:00:52.173 --> 00:00:53.114 <v>Oh, but not today.</v> 
15 00:00:53.114 --> 00:00:56.339 I’m so late, so we can’t have that now. 
16 00:00:56.339 --> 00:00:58.033 <v>I’d love to hear more.</v> <v>We’re working on many things.</v> 
17 00:00:58.033 --> 00:00:59.749 many things. <v>I’d love to hear more.</v> 
18 00:00:59.749 --> 00:01:01.173 and of course I’ll learn a lot now, 
19 00:01:01.173 --> 00:01:02.368 and I know you’re doing a lot of education- 
20 00:01:02.368 --> 00:01:03.76 <v>Well, you know...</v> <v>I just wanna...</v> 
21 00:01:03.76 --> 00:01:04.818 <v>Yeah, that’s good.</v> 
22 00:01:04.818 --> 00:01:06.528 Some other time. <v>Well, remember,</v> 
23 00:01:06.528 --> 00:01:08.557 it’s my treat. <v>Okay, thanks very much.</v> 
24 00:01:08.557 --> 00:01:09.390 I really appreciate. <v>We’re ready to turn,</v>
25 00:01:09.390 --> 00:01:11.790 so if you wanna go to the podium and choose-
26 00:01:11.790 --> 00:01:12.660 <v ->Oh, I see.</v> <v ->You have to do it</v></p>
27 00:01:12.660 --> 00:01:14.604 at the podium, yeah. (laughs) (Vilma laughing)
28 00:01:14.604 --> 00:01:16.754 <v Vilma>All right, I’ll go to the podium then.</v> <v ->Yeah.</v>
29 00:01:16.754 --> 00:01:21.754 <v ->Oh, okay. (Vilma laughing)</v></p>
30 00:01:21.754 --> 00:01:23.834 <v ->So are you ready?</v> <v ->Yeah.</v> <v -></v>
31 00:01:23.834 --> 00:01:26.084 <v Donna>It’s only 12:01.</v>
32 00:01:26.084 --> 00:01:30.139 <v Donna>It’s only 12:01. We usually give people a little more time to arrive. <v ->Okay, I mean, that’s</v>
33 00:01:30.139 --> 00:01:33.123 <v Donna>Okay, I mean, that’s good.</v> <v ->Okay.</v>
34 00:01:33.123 --> 00:01:36.270 <v Ericka>I can be do that now.</v>
35 00:01:36.270 --> 00:01:38.770 <v Donna>Yeah, we usually do.</v> <v ->Okay.</v> <v -></v>
36 00:01:38.770 --> 00:01:41.361 <v Donna>Hmm...</v> <v Donna>Hmm...</v>
37 00:01:41.361 --> 00:01:44.194 (papers rustling)
38 00:01:44.194 --> 00:01:47.718 <v Donna>Do you want me to put it in the chat</v>
39 00:01:47.718 --> 00:01:50.319 <v Donna>that we’ll start in about five minutes?</v>
40 00:01:50.319 --> 00:01:51.777 <v Donna>that we’ll start in about five minutes?</v> <v Donna>I can be do that now.</v></p>
41 00:01:51.777 --> 00:01:54.126 <v Donna>Can they hear us right now?</v> <v Donna>Can they hear us right now?</v>
42 00:01:54.126 --> 00:01:55.958 <v Donna>Yeah, we’re not muted.</v> <v Donna>Yeah, we’re not muted.</v>
43 00:01:55.958 --> 00:01:57.060 <v Donna>Okay, yeah, so hi, everyone.</v> <v Donna>Okay, yeah, so hi, everyone.</v>
44 00:01:57.060 --> 00:02:00.227 <v Donna>We’re just gonna give people a few more minutes to arrive.</v> <v Donna>We’re just gonna give people a few more minutes to arrive.</v>
45 00:02:00.227 --> 00:04:45.310 Hi, everyone, I’m Donna Spiegelman.
46 00:04:45.310 --> 00:04:55.230 I’m Director of the Center for Implementation and Prevention Science,
47 00:04:55.230 --> 00:05:01.290 and I’m very pleased today to introduce our speaker,
48 00:05:01.290 --> 00:05:04.350 Dr. Vilma Irazola, who is the Director
49 00:05:04.350 --> 00:05:06.660 of the South American Center of Excellence
50 00:05:06.660 --> 00:05:09.930 for Cardiovascular Health and the Institute
Vilma is a cardiologist and epidemiologist. Her research is focused on implementation science in the area of public health, health promotion and prevention and management of chronic diseases.

She has been involved in the design and evaluation of community-based and primary care programs and interventions related to cardiovascular disease, diabetes and aging.
In addition to her work in Argentina, where she also teaches Advanced Epidemiologic and Analytic Methods, she is Associate Professor of the Cross-Continental MPH at the College of Global Public Health at NYU, and a scholar and lecturer at the Harvard School of Public Health. I've known Vilma, I don't know, for how many years? 15, 20, maybe more. We originally met at Harvard in connection with the Lown Scholars Program, among other things, and I think the last time I saw her was in Guatemala before COVID, where we were both working in a consortium of projects to scale up and implement cardiovascular disease prevention, screening and treatment programs around the world, a consortium that was sponsored by NHLBI. So I'm happy to turn things over to Vilma, and I'm looking forward to your talk. Thank you, thank you very much, Donna. And thank you for invitation and for this opportunity to share some topics that we are working on and to listen to you and your experiences as well.
I will share a brief presentation about some topics that I’d like to share with you today, and I will share my screen in a minute.

Oh, there it is.

Okay, so what’s the idea today?

This morning actually, Donna and I were talking about some aspects that are so relevant for our work in implementation science, and about which we don’t have, still, maybe all the methods and tools that we may need to approach that.

So the idea is, today, to talk about the role of the control group and how to evaluate the control group in our implementation science studies, the role of context evaluation in this approach and the concept of usual care and enhanced usual care in our project.

To do this, I will use two examples from our work in Argentina connected with hypertension control.

These are two cluster-randomized controlled trials that we have conducted.

One of them is finished and the other one is ongoing.

Well, in terms of context evaluation,
we all are familiar with the different frameworks that we usually use to approach this topic, like CFIR, for example, which is one of the first ones that approach, in depth, the evaluation of outer and inner settings. I am sure you are also familiar with the RE-AIM-PRISM framework, you know, that Dr. Glasgow, who is the developer of the framework, I’d say expanded this framework into RE-AIM-PRISM to include more aspects related to the context evaluation for this framework, which in the past was more focused only on evaluation and the different aspects of evaluation, in terms of reach, effectiveness, adoption, implementation among many. With RE-AIM-PRISM, we working today several projects in Argentina and Brazil and Guatemala, and we find it really useful for all these other topics that were added to the original RE-AIM framework. And also, I’d like to share with you this framework, which is the CIIP. This is a framework that, as far as I know, is not very commonly used in implementation research.
it is more commonly used in training, in training projects and programs.
And I think that there are several things in this framework that may be useful for us, as implementation researchers, to adopt and to incorporate to our methods. And one thing that I find really interesting about CIIP is that the context evaluation, which is the first step in this framework, is then translated into the different stages in the framework. So according to this framework, we keep evaluating the context throughout the project. In this case, they are usually education or training projects, but the proposal here is to keep evaluating these dynamic contexts throughout the project and beyond. So that’s something that might be really useful and interesting for us as implementation researchers. And this brief introduction about context evaluation is connected with the role that this type of evaluation might have in the description and approach to the definition of usual care or enhanced usual care in our project. And to go into this topic,
I’d like to share with you an example of a trial, a cluster-randomized controlled trial, that we conducted in Argentina a few years ago. It was about testing a comprehensive intervention for improving hypertension control in vulnerable population in our country. You know that hypertension is a leading global risk factor for cardiovascular disease and death, and about 75% of people with hypertension live in low- and middle income countries. And this, again, is pre-pandemic. After the pandemic, it’s even worse. The other thing that is very important and critical for us is that less than 10% hypertensive patients in our countries are under control, or have their blood pressure under control. In the case of Argentina, the control rate is about 18%. According to our last estimations, again, pre-pandemic. We have some data from 2021 and early this year which indicates that the control rate is even worse. Well, so briefly, in this trial we selected 18 primary care clinics in different provinces in the country,
and included participants who were adults with hypertension,
who were really controlled,
and defined full control of hypertension as having a systolic blood pressure of 140 millimeters of mercury, or above that number,
and/or a diastolic blood pressure of 90 millimeters of mercury.
We included these patients, their spouses, with or without hypertension, because part of the intervention was related to the role of peers,
family members and people living with these hypertensive patients,
and also, any other adult hypertensive family member living in the same household.
That was the population of the study.
And this is, again, briefly the flow chart of the trial.
We included 18 public primary care clinics that were randomized to the intervention or the control.
And here is the topic, the control arm.
We conducted measurements at baseline six, 12 and 18 months,
the outcomes of the study,
for changes in systolic and diastolic blood pressure and hypertension control rate at 18 months.
And this is a summary of the intervention.
We defined three main components.
The most important one was connected with the role of community health workers working as part of the primary care team and working with the participants, with the patients, at their homes.

In this intervention, community health workers visited patients at their homes, working with their family as well. Patients were provided with BP monitors to self-monitor their blood pressure. Community health workers trained them on how to use these devices and to monitor their blood pressure. They, community health workers, also provided information and tools, different tools to improve medication adherence and lifestyle modifications.

So mainly this part of the intervention was very important and was led by community health workers that were trained to do that. The other component was an mHealth component. We sent messages, text messages, to participants about lifestyle modifications, mainly diet and physical activity, that was the focus, and again, medication adherence.

And the third component was directed to physicians,
252 00:18:00.211 --> 00:18:02.740 Primary care physicians.
253 00:18:02.740 --> 00:18:05.724 Primary care physicians were trained in the use of clinical practice guidelines.
254 00:18:05.724 --> 00:18:09.290 and they also received information, feedback,
255 00:18:09.290 --> 00:18:13.040 about the blood pressure values of their patients.
256 00:18:14.340 --> 00:18:18.633 What they did when they saw the blood pressure values
257 00:18:20.100 --> 00:18:25.100 of their patients was something that they decided.
258 00:18:29.790 --> 00:18:34.770 Apart from an initial training on the use
259 00:18:34.770 --> 00:18:35.603 and contents of clinical practice guidelines,
260 00:18:38.140 --> 00:18:41.940 the second component.
261 00:18:41.940 --> 00:18:45.720 we did not do anything else with decisions.
262 00:18:45.720 --> 00:18:50.310 So they decided what to do, how to manage their patients,
263 00:18:50.310 --> 00:18:55.107 but they received this information that is not part of the initial care.
264 00:18:55.107 --> 00:18:58.075 Vilma, I have a question.
265 00:18:58.075 --> 00:19:01.158 Yes.
266 00:19:02.207 --> 00:19:03.120 Donna Can you say.
267 00:19:03.120 --> 00:19:03.953 Yes.
268 00:19:03.953 --> 00:19:07.080 What blood pressure audit and feedback is?
269 00:19:07.080 --> 00:19:09.660 Yes.
270 00:19:09.660 --> 00:19:11.973 Yes, that’s the second component.
271 00:19:12.930 --> 00:19:16.390 What we did is the community health worker
272 00:19:18.240 --> 00:19:20.730 visited patient’s home each month.
273 00:19:20.730 --> 00:19:23.913 during the first six months, and then bi-monthly.
274 00:19:25.440 --> 00:19:28.830 When they went to a patient’s home,
275 00:19:28.830 --> 00:19:31.250 they reviewed, with the patient,
276 00:19:31.250 --> 00:19:35.336 all the values of their blood pressure,
277 00:19:35.336 --> 00:19:37.188 according to a log.
that the participants were asked to complete.
And that information was shared
by the community health worker with the physician.
That’s the feedback,
that’s the component of sharing data with the physician.
And that’s all what we did in that component.
Some physicians were very proactive,
and they take action and adjust medication, et cetera,
and others not.
We haven’t had nothing to do directly
through the trial with that.
So that was that component.
And it’s important to your question, Donna,
because at the time,
there were no electronic medical records in these clinics.
Now, in these provinces, the situation is different,
so we would be able to do this differently now.
And I can tell you what’s happening now
in these provinces as well.
Well, so these are briefly the three components
of the intervention.
This is, for example, a picture of the training sessions
for community health workers at the university,
and these are some examples of the tools
that the community health worker share with participants,
for example, pill boxes, to help improving adherence to medication and other tools that they share with patients as well. They, community health workers, trained participants on how to measure and monitor their blood pressure as well. And everything happened at home. Well, some of the results, what happened with this trial? In this table, we describe the main characteristics of our participants. As you can see, the mean age was around 56 years old, half of them were women and what else I’d like to highlight here were patients were poorly controlled, that was a criteria to enter the study. You can see also in this table that the use of antihypertensive medication was very high. This is the public system in Argentina and medication is provided for free to patients. The problem is that there are periods of time where the centers don’t have enough medication for patients. That’s very frequent, that’s very frequent. So in spite of being a high percentage, high proportion of patients being treated, the problem here was more connected
with continuity of treatment, in part because of lack of medication during some months.

<v Donna>Can I make a comment right here on this?</v>

Yes, sure.<v So I see that you</v>

sort of started off in a bad-luck situation, where the intervention group had significantly higher history of CVD and higher systolic and diastolic blood pressure.

It’s not huge differences, but usually with sample sizes like that, you don’t see significant differences in a randomized trial.

But maybe it’s because the cluster randomization and there might have been...

I don’t know what the ICC was with the clusters,

but maybe there was a lot of variation in the clusters, so that it’s much easier to have a bad-luck randomization like this. <v Yes.</v>

And in our calculation, our sample size, we estimated an ICC of 0.06, that was our sample size calculation, but then, after conducting the trial, the actual ICC was 0.15.
Wow, yeah that is very high.

Well, so this is the population and what happened with our outcomes, systolic, diastolic blood pressure and hypertension control.

Before going into that, I'd like to remind you that...

Or not remind, I think I didn't say it.

If can go back to the previous slide...

But it doesn’t matter.

One important thing here, in terms of our topic today, which is the control group and how to evaluate the control group, is that we conducted evaluation visits, study evaluation visits, at baseline six, 12 and 18 months.

And who conducted those visits?

We trained the study nurses who were part of the medical staff of the primary care team in each clinic, that is, the nurses in charge of conducting the evaluation visits were part of the primary care team.

And this is important later for the interpretation of our results.

Vilma, are you saying that...

Was that by design or in retrospect?

Maybe you wouldn’t have preferred that?
I mean, it seems like if they’re part of the group, it might be hard for them to be objective. Is that the point that you’re making? <v>Yes, yes.</v> Yes, but it was so by design really, because in my view, there is a trade-off here, you know? This is very warm, our population. So sometimes it’s difficult to enter the neighborhood and be accepted by people. People have to open their door for you to conduct these evaluations, and for them, it’s very important that they know these people. So we thought a lot about that and said, "Well, we can hire nurses and do this absolutely independent of the primary care team, but in our opinion, it would have been very difficult for them to enter many of these houses." So we say, "Well, we trained, in depth and intensively, these nurses on how to make the evaluations, how to collect the data. They were trained not to do anything else when they conducted these evaluation visits, but they were part of the primary care team, and people know that, so that’s important, yeah, Well, what happened then with our outcomes?
We can see here the effect of the intervention on systolic blood pressure. There was a significant reduction in the intervention group early at six months, and this effect was present until the end of the study as well. So we have these positive results, in terms of systolic blood pressure. But if you look at the control group here, the control group also presented improvement in the systolic blood pressure of their patients. The reduction was significantly different between the two groups, but again, in the control group, there was an improvement, a significant improvement, within this arm. And same thing when we look into the proportion of participants with their blood pressure under control. Again, the difference was significant between the arms, but there was improvement in the control group. Well these are some data about mediators, like adherence to medication, which was improved over time, and the same happened with adjustment of medication by physicians. And here we come to the topic now.
that we want to discuss today. There was this improvement in the control
group, and trying to interpret, the best way we can, these results.
So we conducted several in-depth interviews with participants from the control group.
Usually we conduct interviews with a particular focus on participants in the intervention group, you know?
Because we want to learn about the perceptions of our study.
In this case, and seeing those results, we conducted these interviews, and we found that first, patients valued, really, being visited by nurses from their clinics, from their primary care centers.
They felt care, you know?
They valued that and that was something positive for them and for their own healthcare.
The other thing that happened was that nurses provided some counseling, you know?
I mean, they were in contact with these patients, they knew them and they provided counseling about, for example, how to get medication. You have travel when you go to the primary care center.

What can you do? "I can help you with this," and comments of this kind. And the nurses did that and that’s a great thing, of course, that help us understand better the results.

Patients in the control group increased the number of visits to the clinic, for example, without any other intervention because of this qualitative approach. It was a very limited qualitative approach that we were able to do in this case, but my question for you, and my reflection on that, is how to better design the qualitative phase, the qualitative components of our research, to get information, not only on the intervention perceptions, the intervention group, et cetera, but also what is happening with the usual care group, or standard care group, and what people in this arm feel and is exposed to
479 00:33:14.340 --> 00:33:17.670 during the study in general.
480 00:33:17.670 --> 00:33:18.540 And the other thing
481 00:33:18.540 --> 00:33:22.143 that I was talking to Dr. Raphael yesterday
482 00:33:24.330 --> 00:33:27.750 was about the use of existing databases
483 00:33:27.750 --> 00:33:32.700 to get information about not only the control arm,
484 00:33:32.700 --> 00:33:35.010 but all the other centers
485 00:33:35.010 --> 00:33:38.520 that are a part of our target population, and therefore,
486 00:33:38.520 --> 00:33:40.620 not included in the study,
487 00:33:40.620 --> 00:33:43.893 because that would be usual care, really.
488 00:33:45.060 --> 00:33:47.430 And I was talking with Donna this morning,
489 00:33:47.430 --> 00:33:52.340 how to incorporate those things, if those data exist,
490 00:33:53.490 --> 00:33:56.280 how to incorporate them to better understand
491 00:33:56.280 --> 00:33:58.673 what is usual care of centers
492 00:33:59.652 --> 00:34:02.852 that are not part of a clinical trial,
493 00:34:02.852 --> 00:34:05.152 like in this case, for example.
494 00:34:05.152 --> 00:34:10.152 So that’s something that we can study and
develop, you know,
495 00:34:13.540 --> 00:34:16.197 in that type of approach.
496 00:34:16.197 --> 00:34:18.060 We’re trying to do that
497 00:34:18.060 --> 00:34:21.465 in another cluster-randomized controlled trial
498 00:34:21.465 --> 00:34:25.380 that we are conducting now in Guatemala.
499 00:34:25.380 --> 00:34:27.093 Based on these results,
500 00:34:28.740 --> 00:34:33.427 we started a new project with our team in
Guatemala.
501 00:34:33.453 --> 00:34:36.570 We adapted this intervention
502 00:34:36.570 --> 00:34:39.040 that I presented a few minutes ago
503 00:34:42.230 --> 00:34:44.907 to the context of Guatemala.
504 00:34:45.938 --> 00:34:47.550 There were a lot of adaptations,
505 00:34:47.550 --> 00:34:51.518 and we don’t have time today to go into much
detail,
but we designed, in this cluster-randomized controlled trial in Guatemala, we included 32 primary care clinics in different districts in Guatemala, and they were randomized to the intervention or the usual care arm of the study. And the intervention, as I said before, was based on the experience in Argentina, but we did a lot of adaptations. These are the final components of the intervention in Guatemala.

How was it adapted? It kinda looks the same to me. I'm sorry? Because it looks very similar, or even the same, as the Argentina intervention components? Yes, there are a lot of similarities. There are a lot of similarities. But for example, the mHealth component, which was text messages in Argentina, is not here. is not part of the trial in Guatemala, because of the very high proportion of illiteracy in Guatemala. So there is a high proportion of people who cannot read and write, so we did a lot of work trying to adapt, with visual aids, the messages, but we didn’t find a way to do it.
to make it feasible here, so that’s not part of the trial.
There, home blood pressure monitoring is quite the same.
What we adapted here is the training, or the education of patients,
on how to use these devices, again, for the same reason.
So we used pictures, for example, for patients and we did a lot of training with the patient,
just to be sure that they were able to use those devices.
And here, about the team collaborative approach,
in Guatemala, the system is organized in a different way,
compared to Argentina,
so we have to work with more levels.
For example, in this clinic, there is no doctor.
In Argentina, each primary care clinic has a primary care team with at least a doctor,
in general, a general practitioner,
one nurse and one community health worker.
That’s more or less a rule,
and in some clinics there are more people and more doctors.
In Guatemala, in each clinic, there is one auxiliary nurse at least,
and maybe that’s the only personnel at the clinic.
In the higher level of clinics,
they have also a nurse,
and then they have centers where they have doctors. These are interconnected, but you have to work with these different pieces. So this collaborative team approach was different as the ones in Argentina. A lot of other things are very similar, very similar. So this is the intervention in Guatemala. In Guatemala, and this maybe is a topic for another meeting, we have other types of challenges connected with the different ethnic groups. In Guatemala, there are many different populations, that, for example, some of them speak Spanish, some of them are bilingual, so they speak Spanish and a Mayan language, and some of them speak only in Mayan languages, and some Mayan languages have a written form and others not. So there we have another very, very challenging situation and we work a lot with the materials and according to these different populations. (participants speaking in foreign language) (participants speaking in foreign language continues) Okay, so well, this is study in Guatemala and the field work.
Equity, this is another topic. (laughs)

This is another big topic.

So what’s the state of the study in Guatemala?

We finished the field work last week, so we are just starting cleaning the database and preparing it for analysis.

We will have the results in a few months, so we can share those results with you, but what I’d like to share here, in terms of the control group and how to approach the control group, is based on our learnings from Argentina, from the design phase of the study planned for different evaluations, not only of the control arm of the trial, but also on other clinical posts and centers that were not included in the study, so I hope we have more data to evaluate this usual care at the end of this study.

And this has also budget implications. So for us researchers, it is important to have that in mind and plan in advance, because it’s different, it’s really difficult, as it happens in Guatemala and in many other countries, information is not so easily obtained, and it’s not so easy to access this information from other centers.
So there is a lot of work there as well. So that’s what I’d like to share with you and to put on the table, you know? What can we do as researchers to improve our study and evaluation of the so-called usual care in our studies.

Yes? That was a wonderful talk.

You talked a little bit with the first study in Argentina about some of your hypotheses about the improvement in the control group with regards to these individuals making house visits. I was also interested in to what degree, in either study, there might be cluster-level differences between the different clinics that you’re randomizing, and whether you account for those when you do randomization, say by stratified randomization or restricted randomization, if you think those factors might lead to systematic differences between the two groups? That’s something that I’ve struggled a lot with in my research and I’m curious how you think about it.

That’s a great question. We struggled (laughs) a lot as well. We have eligibility criteria for the individuals, I showed you those criteria,
but also for the clinics, trying to, you know, have a set of...

I mean, trying to reduce variability between the clinics that we invited to participate in the study.

So that was one thing, in terms of resources, size, et cetera.

The other thing is that we live in a federal country, so each province in our country, in Argentina, has their own rules, regulations and let’s say, organization of the healthcare system.

We were working with several provinces, so we stratified by province, for example, to take into account that, to try to adjust for that variable.

And there was no other stratification in this trial.

We tried to manage variability through this eligibility criteria, in terms of...

I don’t remember exactly, I think it was three or four variables, factors we took into account.

One was size of the clinic, the composition of the primary care team in each clinic, not to mix, you know, maybe big clinics with a lot of personnel, versus other ones that were smaller, so we took that in account.
provision of medication, because although medication is provided for free in our country, for people who has only public insurance, only public insurance and not other type of coverage, the quantity and delivery of medication is different from different clinics or districts within each product. So we took that in account as well. That was another way of trying to balance clinics before randomization. And after that, it was simple randomization of clinics, stratified by province and no more than that. But I agree with you. It may be for sure something that could have influence in these differences that we found. In implementation research, you know that it’s always difficult, this balance and this trade-off, between what is feasible and what we, from a design point of view, want for our trial. It’s difficult, really. One suggestion on a statistical level One suggestion on a statistical level for this issue would be secondary analysis, where you control for baseline patient and clinical-level characteristics,
and then see how that changes the contrast.
That’s a great subject. Yes, we explore.
Yeah, exactly. We explored that.
Yes, we explored that.
We didn’t have much data, you know,
just in terms of the clinics,
but we did exploration about that.
We didn’t find differences in the results.
So that’s something that I proposed to work on
in the future.
I’m curious, Vilma,
has the TREIN/HyTREC consortium discussed this issue at all?
Has the other projects also seen the same sort of,
maybe not necessarily in the same magnitude,
but the direction of improvements in control groups?
Like, was it a consortium-wide phenomena?
Do we know?
No, I don’t know, but it hasn’t been discussed yet.
We have a meeting in September, I think,
and our idea is to share these results
and see what is happening
in other studies in the consortium,
but it hasn’t been discussed yet.
I know we’ve seen a similar phenomena.
in our work site intervention studies,
where we’re trying to improve food and physical activity environment at work sites, to reduce cardiometabolic risk, and then we find, just simply by screening and then waiting six months, we see big improvements in blood pressure and smaller ones in blood sugar and so forth, which I think has been seen. Screening itself is a public health intervention, but I’ve also read it’s not a durable one, without additional supports. So you might see some additional... People may improve when they find out, but then, they’ll go back, maybe, if we don’t have these other things. So there’s maybe short-term... Like, would the short-term improvements in the control group be sustainable, say for two years or five years, or would they start to go away, whereas the intervention group can maintain their improvements and maybe even continue to improve?

I agree. I fully agree and I think that... Actually, we prepare a proposal to measure sustainability of the resource in Argentina and we didn’t make it, but I think that’s something
to talk with funders about, you know? Because there is a lot of effort and resources put in each of these trials that we conduct, and we don’t know, in general, what happened half the time.

I have some data about this trial in particular, because this program was adopted by one of the provinces and it was scaled up through the province, one of the province that I showed in the first map.

So I have data on that, and they are very, very successful. That’s good data. The difference is not so big as in the trial, as usual, but they keep improving. I don’t know what happens in the other provinces, but I think that’s something that would be really great if we can do that.

In terms of the time, I mean, the timeline of our project, in general, we cannot do that. So it’s time budget, but I think it would be great if, really, it’s possible now, to see what happened with these.

These programs, these projects, are adopted by the government. You have data afterwards, but if not, in general, it’s difficult to know what happened.
How did the randomization work out in Guatemala? In terms of the clinic? Of the balance?

Yeah, like, in table one, like you showed us-

And did you have significant differences between-

No. Oh, good.

In that sense, it was better. (laughs)

Yeah, it was more balanced. Uh-huh.

Yeah, and I don’t have the table now,

but in Guatemala, it was more balanced.

Uh-huh.

So I’m monitoring the chat,

and it seems that people are being a little shy.

Oh, I have another question.

I have some too,

but I didn’t wanna hog the whole discussion.

So do you know to what degree

the interventions worked in the intervention arm?

Because I’m just wondering, A, how successful they were,

of other factors

that restricted the ability to improve?

For example, you were mentioning about a lack of medications

in the health facilities.
I can imagine that no matter what you do with all those interventions, if there aren’t drugs, things might not get better.

Do you have any information on the fidelity, basically, of the intervention, or factors that might have impeded the fidelity?

Yes, we have quite a lot of information from the Argentina trial. We have quite a lot of information from the Argentina trial.

But there is something I would like to comment connected with your question in Guatemala.

In Guatemala, the Ministry of Health was part of the trial, of the project, from the very beginning.

They were involved in the design of the intervention, in the monitoring of the intervention, so they were very much involved.

And they committed themselves to assure that there would be medication at the health posts at least during the trial or duration of the trial.

And they did it. With some periods, you know, they have problems, limitations, shortage of medication, but they did it, and they work a lot to provide medication and to prioritize these centers, part of the study,
in the provision of medication.
So something that we...
Again, I don’t have the data to talk about, but we know that there was improvement in both arms in Guatemala,
something similar to what happened in Argentina,
and through qualitative interviews,
we understood that people was really very well,
because they noticed that there were medication access to medication, in the centers,
that was something that was more or less assured in both arms of the study.
And in our approach to the other centers in Guatemala,
same district, but not part of the study,
we are collecting information about medication,
and the lack of medication is very important.
There were serious problems with the provision of medication,
in all the other centers in the same district,
different to the centers in the study.
So that’s something that if you cannot assure that,
I mean, if you cannot provide medication,
as you said, whatever you do with the other alternatives,
that is just maybe useless.
And was this in Argentina you’re talking about?
Or Guatemala? In this case, Guatemala.
In this case, Guatemala, because in the preparation phase,
in the pre-implementation phase of the study, we did a lot of research about what is happening
with the availability of drugs in the centers, and we found that there were big problems there.
So we talk with the Ministry of Health,
they committed to work on that for these centers, and they did.
But the rest, again, the usual care in reality in Guatemala
was different.
I don’t know how much impact this will have on this trial yet.
But it happened there.
So Vilma, we’ve gotten...
It’s like three questions now on the chat,
and we only have two or three minutes,
so what I thought I might do
is just ask all of them in four minutes,
I'd ask all of the questions, and maybe you can just try to address them together?

So John Roman asked, "Was there any incentives given to either participants or care providers?"

I think he means financial incentives-

No, (laughs) a short question. (laughs)

Okay, good- A short answer.

Oh, Raphael Perez Escamilla asked,

"Was text messaging used in Argentina and Guatemala?"

You've actually addressed that a little bit, but maybe if there was data on...

So Raphael, it wasn't used in Guatemala, because of the literacy issues, but in Argentina it was used, and I don't know, Vilma,

If there was any way to independently look at that component

to see how helpful it was, compared to all these other complex components?

No, it's difficult to separate and to analyze independently the contribution.

But there was a high correlation

with the dose received of text messages
and the blood pressure control. Okay, so that’s something.

Okay, so that’s something.

as these were a useful part of the intervention.

Oh, good.

And then Anna Julio asked, "How sustainable is the intervention?"

Was it adopted by the Ministry of Health in total?

Besides the medications, the mHealth component?”

So I think you’ve discussed that a little bit.

maybe about Guatemala, but not so much for Argentina.

In Argentina, the intervention was adopted.

by only one province.

Oh, that’s right, you did say that.

And it’s working. (laughs)

It’s working, you know?

But not in the other provinces.

And shortly, this is the base for the HEARTS initiative.

The HEARTS Initiative in the Americas,

in the case of Argentina,

was built on this intervention.

So we could contribute, you know,

with many implementation indicators

for them to implement the initiative.

That’s something, not much, but something.
Vilma, maybe like in your remaining few minutes.

One could say a little bit more about the HEARTS Initiative, 'cause a number of us, myself included, are not that familiar with it?

The HEARTS Initiative is a platform initiative for the Americas. There are 12 countries that adopted the HEARTS Initiative directed to better control hypertension.

HEARTS is based on a team-based approach protocol for clinical practice guidelines in the country, measuring cardiovascular risk as part of the management of patients with hypertension and providing free access to medication, in particular, fixed-dose combinations, which are supposed to improve adherence.

Because these people had and have comorbidities and sometimes have to take many medications, so these fixed-dose combinations are an alternative.

Those are the components of the HEARTS Initiative in the Americas, and we have 12 countries at the moment as part the initiative. And who’s paying for all these medications?

Each government.
I mean, each government. They don’t receive... Countries don’t receive any financial support. Technical support, yes, but not financial. Okay, well, it is 13:00, so this was an incredibly interesting talk. I would’ve loved to have asked more about equity, which is a very hot topic around here at the Yale School of Public Health and elsewhere, but maybe we can save that for another time. And thank you so much, Vilma, for coming and providing such amazing information. Thank you very much. Thank you very much for giving me the opportunity. You are like a star. Yeah. You are like a star. Thank you. Thank you. Thank you. Hey, how’s it going, I’m Luke Davis. Hi, how are you?