Understand your users and environment

Strategize how you might use RapidPro to help Gather logistical information and estimate costs

Refine the project documentation and secure funding

Set up RapidPro account, build flows, customize diagnostics Establish partnerships and agreements

Secure staffing, begin marketing, start deployment

# the RapidPro project design toolkit



# Designing a RapidPro communications channel

RapidPro is a platform that helps governments and the international development community easily build mobile-based communications channels directly to the public or to front-line workers – it's affordable, scalable, and requires little technical expertise to design or implement.

RapidPro exists to help these institutions overcome the information and communications bottlenecks in their regions, allowing them to more efficiently meet the needs of the people they serve.

### Planning out a RapidPro project involves the following stages and steps:

Frame your needs and environment	Design a future state solution	Plan the implementation logistics
Describe the challenge	Map out a more ideal system	Gather background information
List the bottlenecks	Assign user responsibilities	Estimate costs and set indicators
Map out the surrounding system	Build out a RapidPro flow	Assign owner responsibilities
Understand your users		

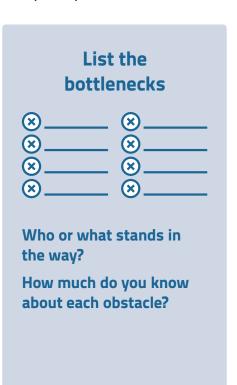
At the end of each of the stages, you will have an opportunity to validate your decisions with national partners and front-line workers.

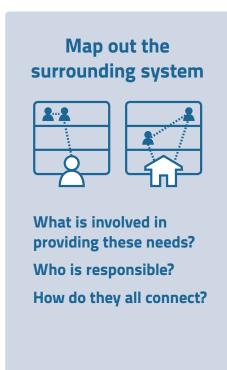


# Frame your needs and environment

**Articulate and examine your aspirations for this project.** State who you are trying to help, how you are hoping to serve them, and what factors in your political and technical environment should inform the solution you create.



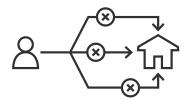








# Describe the challenge



# Articulate what it is that you are trying to accomplish.

Take everything you know so far about your users and their needs, and state them clearly. This forms the foundation of your project.

### Who you should involve:

Project team

How much time you should allow: 30 minutes

What materials you need:

Pen

Extra paper (if necessary)

1	Who are you trying to help?
2	What do they need?
3	Why do they need it?
4	What are some possible reasons why those needs aren't being met?
5	What are some of your initial ideas for addressing these challenges?

6 Using the information above, craft a single <u>guiding statement</u> for what you are trying to accomplish with this project.

Example: [Person] needs [thing, service, etc.] to do [what they need to do]. They cannot access this because [reason standing in their way. We plan to [help them in this way] by [addressing it in this way we think might help].



# List the bottlenecks

×	×
×	×
×	×

### List out the bottlenecks that stand in the way of your users having their needs met.

Brainstorm as many possible bottlenecks as you can, and include as much as you know so far about why each exists.

### Who you should involve:

Project team

How much time you should allow: 60 minutes

What materials you need:

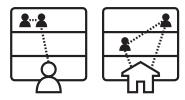
Pen

Extra paper (if necessary)

1	What are all the reasons the needs of your users aren't being met?	2	Assign a category to each of these bottlenecks.
	Take the list you started in <b>Describe the challenge: #4</b> and add to it. What other infrastructure problems make delivery or access difficult? Who is actively working against this? Who is <u>not</u> acting when they should, and why? Does the physical location itself present challenges?		Person – Political, Cultural, Personal; Infrastructure – Funding, Resourcing, Communi- cation, Information; Other



# Map out the surrounding system



Start mapping the relationships between your users, their needs, and the people responsible. Show how they connect to and communicate with one another, and note where the bottlenecks exist.

Who you should involve:

Project team

How much time you should allow: 60 minutes

What materials you need:

Pen

Extra paper (recreate this map on a larger sheet if necessary)

1

Identify all the users and institutions that are in some way connected to the issue you identified.

**Draw an icon for each of them on the next page**, and distribute them across the governance levels indicated — <u>local, regional, national</u>, and <u>international</u>. Feel free to use the icons below.













Child or individual

Community, family, or marginalized group

Front-line worker or community worker

Health center, school, service provider

Government official or NGO staff

Governing body or NGO

Draw lines between all the users and institutions that are formally or informally connected in some way.

**Examples of connections:** 

- Chains of command
- Decision-making cycles
- Funding
- Social or familial links
- Customer-provider relationships

Mark the bottlenecks in your map anything that could be making it harder for your users to get what they need.

**Examples of bottlenecks:** 

- Infrastructure gaps
- Communication gaps
- Lack of funding
- People who can't/won't fulfill their responsibilities
- Lack of user knowledge about existing services



# Map out the surrounding system

International level Global governing bodies International NGOs
National level National ministries NGO headquarters Telecom companies
Regional level Regional governments Health facilities NGO offices
Local level Health workers Community leaders Children and families



# Understand your users



# Identify all possible users and describe them in more detail.

List out all users identified in the previous activity; then fill in their roles, responsibilities, needs, and relationship with the issue you seek to resolve.

### Who you should involve:

Project team

How much time you should allow: 60 minutes

What materials you need:

Pen

Paper

User name Copy from system map	<b>Role and responsibilities</b> Describe job/position and what they do	<b>Connection to issue</b> What they do / should do	<b>Needs</b> to do their job better			
Copy this grid onto as many pages as needed so that you can fill in all users from your system map.						



### Validate! Your needs and environment







Verify your assumptions, fill any gaps in your information, and start building buy-in.

Make revisions to reflect the information and concerns provided by partners and front-line workers.

### Who you should involve:

Project team National partners Front-line workers

How much time you should allow: 90 minutes

### What materials you need:

Camera Pen Phone Paper

Share the guiding statement of your project. Copy down here from Describe the challenge: #6	5 State all the bottlenecks. From List the bottlenecks: #1	From Understand your user  From Understand your user
---------------------------------------------------------------------------------------------	------------------------------------------------------------	------------------------------------------------------



# Design a future state solution

**Start planning out how the "future state" could look.** Envision what environmental factors or communication channels would need to be changed, and what responsibilities allocated, to ensure you address the users' needs.

Map out a more ideal system



Who should you start to engage?
What should you add/change?

How can you strengthen or create necessary connections?

Assign user responsibilities

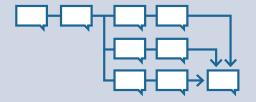


Who would be involved in this new system?

What would they need to do?

How would they do it?

Build out a communications flow



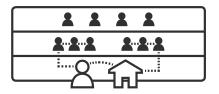
What kinds of messages would be used in these new information/communications connections?

How would you structure them?



#### **DESIGN A FUTURE STATE SOLUTION**

## Map out a more ideal system



Take your existing system map and identify improvements you might be able to make. Create connections between users that don't yet directly communicate, provide new types of information, etc.

Who you should involve:

Project team

How much time you should allow: 90 minutes

What materials you need:

Pen

Extra paper (create your map on a larger sheet if necessary)

1

Identify who/what would be involved in addressing the main issue, and map out a more ideal system.

Review **Map out the surrounding system** and re-draw the system map to reflect any changes in people or institutions that would lead to the users' needs being met. Follow the same governance levels, and feel free to use the icons below.













Child or individual

Community, family, or marginalized group

Front-line worker or community worker

Health center, school, service provider

Government official or NGO staff

Governing body or NGO

2 Identify ways to resolve current bottlenecks by improving, adding, or redirecting existing connections.

**Examples of connections:** 

- Chains of command
- Decision-making cycles
- Funding
- Social or familial links
- Customer-provider relationships

Look at your new connections and consider which of these might be facilitated by RapidPro, and in what ways.

Examples of functions supported by RapidPro:

- Client education & behavior change communications
- Registries and vital events tracking
- Data collection and reporting
- Reminders
- Worker planning and scheduling
- Supply chain management
- Other



# Map out a more ideal system

International level Global governing bodies International NGOs
National level National ministries NGO headquarters Telecom companies
Regional level Regional governments Health facilities NGO offices
Local level  Health workers  Community leaders  Children and families



### **DESIGN A FUTURE STATE SOLUTION**

# Assign user responsibilities

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# Describe the updated roles of users in your ideal system.

Involve your national partners (and maybe front-line workers) early in this part of the planning. They will know better what would be realistic to

### Who you should involve:

Project team National partners

How much time you should allow: 60 minutes

What materials you need:

Phone

Pen

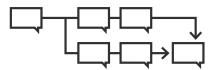
Paper

<b>User name</b> From ideal system map	<b>New role</b> Position/job	<b>New responsibilities</b> What they would be expected to do	<b>Achievability</b> Can this role be easily created?
Copy this grid onto as	: s many pages as	needed so that you can fill in all use	rs from your system map.



### **DESIGN A FUTURE STATE SOLUTION**

### Build out a communications flow



Start focusing on individual communications channels or instances in your new system map. Looking at one at a time, figure out what each needs to accomplish and how they would do that.

### Who you should involve:

Project team
Front-line workers

How much time you should allow: 90 minutes

What materials you need:

Phone

Pen

Extra paper (as necessary)

- 1 Choose a communications channel. Choose a new RapidPro connection from Imagine a more ideal system.
- 2 What type of RapidPro connection is this?

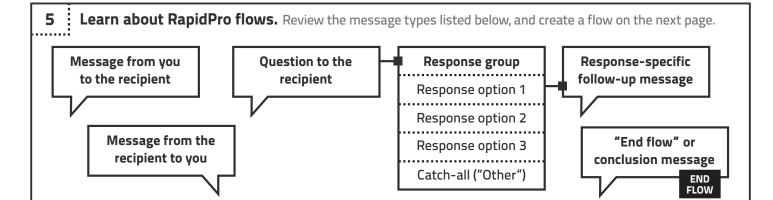
Choose from the categories in Imagine a more ideal system: #3

Which users are involved in this channel?

Categorize each as: <u>initiator</u>, <u>recipient</u>, or <u>observer</u>

What needs to be accomplished?

What do you need to learn, or to share/provide?



### Tips:

Always introduce yourself and state upfront why you are communicating with the recipient.

Ask your front-line workers how to best make the language and terminology of your messages appropriate for the audience.

Make sure you are hitting all your information points in some way.

Always end the flow by thanking the

Always end the flow by thanking the recipient and stating the next steps.



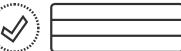
# Build out a communications flow

6	Create a RapidPro flow. As necessary, repeat steps 1–6 on additional pages for each of your new RapidPro connections.



### Validate! Your future state solution





Review your new system with national partners and front-line workers. Determine whether your plan is feasible and impactful, then work together to further refine the strategy's details.

### Who you should involve:

Project team National partners Front-line workers

How much time you should allow: 120 minutes

### What materials you need:

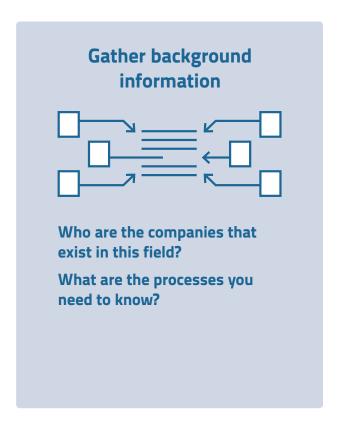
Camera Pen Phone Paper

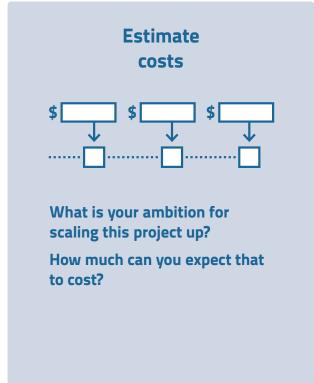
- Organize a call with your project team, national partners, and front-line workers/contacts.
- Take a photo, scan, or photocopy of your new activities and send to everyone in advance. See Imagine a more ideal system, Assign user responsibilities, and Build out a communications flow.
- Discuss with everyone the decisions and discoveries made while working on your activities. Use the questions below to help refine your future state strategy and build consensus.
  - 1. Are there any aspects of the <u>ideal system map</u> that are unrealistic?
  - 2. Have we missed any opportunities in the ideal system map?
  - 3. Do the new <u>user responsibilities</u> seem realistic? Are we missing any roles or responsibilities?
  - 4. Are these <u>communications flows</u> understandable? Do you think they would get responses?
- 4 Revise everything as necessary until together you arrive at agreement on your strategy.



# Plan the implementation logistics

**Prepare to start implementing your project.** Gather necessary information, calculate implementation and maintenance costs, craft a business case to use in persuading partners, and start building out a work plan.



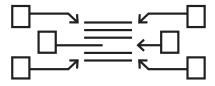






#### PLAN THE IMPLEMENTATION LOGISTICS

# Gather background information



# Prepare for more in-depth implementation planning.

Start gathering information about telecommunications providers, costs, companies, shortcodes, and processes.

Who you should involve:

Project team

How much time you should allow: 90 minutes

What materials you need:

Pen

Internet access

Phone

1 Companies, ministries, and organizations Refer back to Assign user responsibilities, then add as needed.

Telecommunications companies in your area(s)

Government ministries that might want/need to be involved

NGOs engaged in similar work

2 Processes

Where will you get these mobile numbers? Provided by a government ministry, or will you be advertising?

If you will be advertising/marketing, how do you plan to do so?

How do you set up shortcodes through local telecommunications providers?

3 : Costs

The cost of <u>sending</u> Any reduced rates available for sending

one SMS message? out large bundles of messages?

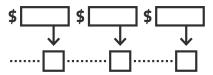
The cost of <u>receiving</u> Have you heard of any other initiatives one SMS message? or precedents where pricing deals were

arranged with telecoms providers?



### **PLAN THE IMPLEMENTATION LOGISTICS**

### **Estimate costs**



### Do some initial calculations.

Start figuring out the cost of implementing and maintaining your idea depending on the number of users you end up gathering.

**Who you should involve:** Project team

How much time you should allow: 60 minutes

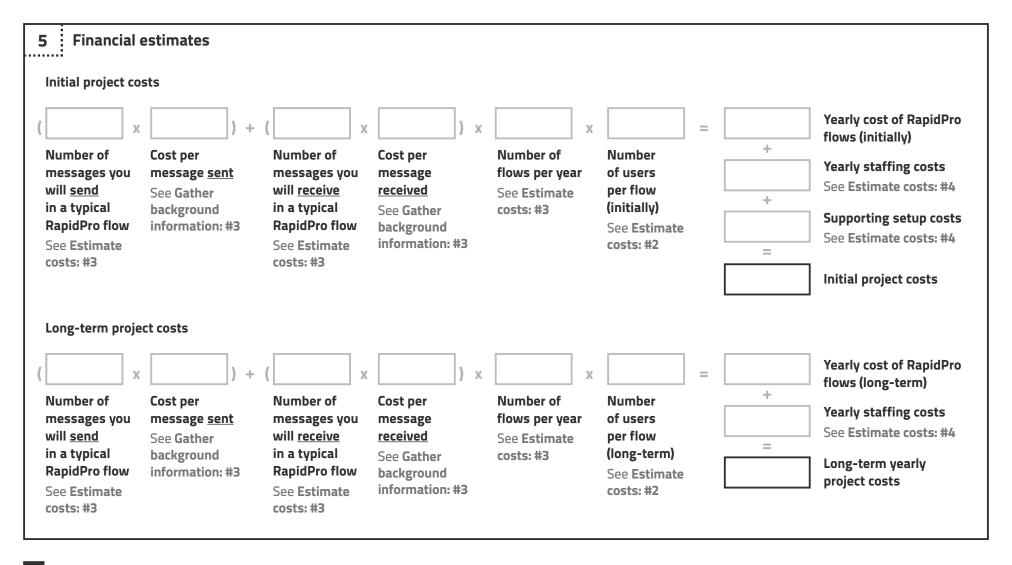
What materials you need: Pen

Extra paper (if necessary)

1 Choose a communications channel. Choose a new RapidPro connection from Imagine a more ideal system.							
2 Scale	How many distr cities will you re		many centers/ ools per district/c	How many vity? students pe	vorkers/ r center/school?		
At the start of you One year from now							
Messages See Build out a communications flow: #6  How many messages will you How many messages will you How frequently will you be initiating RapidPro flows?							
4 Supporting	4 Supporting costs # of Annual salary Yearly Initial employees per employee staffing costs setup costs						
Which of the following will	Web/cloud hosting	(	x	) =			
you also need to plan for?	Marketing/advertising	(	х	) =			
	Message writing	(	х	) =			
	Translation	(	x	) =			
	Monitoring/call center	(	x	) =			



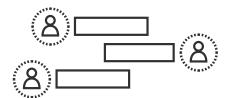
### **Estimate costs**





### PLAN THE IMPLEMENTATION LOGISTICS

# Assign owner responsibilities



Review what is left to do and start assigning responsibilities. Now that your central project strategy is mostly complete, you can start figuring out how to divide up the remaining work.

Who you should involve: Project team

How much time you should allow: 30 minutes

What materials you need:

Pen

Paper

Internet connection (if needed)

Determine the financial feasibility of your plan Costs can increase dramatically depending on the number of users, how frequently you reach out, and other negotiations.	RAPIDPROTOOLKIT.com/ FINPLAN RAPIDPROTOOLKIT.com/ INDICATOR	Assign an owner:
Plan how to maintain your infrastructure Keeping a RapidPro project funded, maintained, and monitored over time will require a plan and stable underlying structure.	RAPIDPROCURRICULUM. com/XX	Assign an owner:
<b>Develop a workplan</b> Take your strategy and various calculations and build into an actionable set of steps and responsibilities.	RAPIDPROTOOLKIT.com/ WORKPLAN	Assign an owner:
Recreate everything in the RapidPro website	rapidpro.io docs.rapidpro.io/#topic_3	Assign an owner:
Build real RapidPro flows, add dynamic flow features such as webhooks, and start setting up your analytics page.	RAPIDPROTUTORIALVIDEOS. com/XX	
·		Assign an owner:



# Validate! Your implementation plan



# Double-check all your financial estimations and discuss what is feasible.

Figure out what needs to happen next and start assigning tasks.

### Who you should involve:

Project team National partners Front-line workers

How much time you should allow: 120 minutes

### What materials you need:

Camera Pen Phone Paper

- 1 : Organize a call with your project team, national partners, and front-line workers/contacts.
- Take a photo, scan, or photocopy of your new activities and send to everyone in advance.

  See Gather background information, Estimate costs, and Assign owner responsibilities.
- 3 Discuss your initial implementation ideas and finish building out a project plan together.
  - 1. Do we think we can gather funds to cover the initial costs and maintain funding for this project in the long-term?
  - 2. Where would this funding be coming from?
  - 3. Do we all agree on what supporting costs would be necessary?
  - 4. What is a rough timeline we would like to follow?
  - 5. Does everyone understand and agree on what they will be responsible for doing?
  - 6. What are our next steps?
- 4 Revise everything as necessary until together you arrive at agreement on your strategy.



# Glossary

#### **Bottlenecks**

Barriers standing in the way of responsible people or groups providing the goods, services, or legal recognition needed by users; or barriers prohibiting users from reaching existing goods or services.

#### Channels

The methods and processes through which you reach and communicate with a specific person or group. Within this toolkit, a "channel" usually refers to a new communication stream that you will build using RapidPro to address or navigate around bottlenecks in order to reach users who need or provide services, or to connect the two directly.

### Client education and behavior change communications

A function supported by RapidPro. May refer to regular and steady distribution of useful information, or to time-sensitive and emergency updates.

### **Community leaders**

Local authorities or respected figures that may or may not be sanctioned by the national government.

### Data collection and reporting

A function supported by RapidPro. Involves transitioning data systems from slower processes to faster ones. Allows for more efficient aggregation and analysis of statistics and data.

### Financial plan or budget

Required project-planning document to be completed after this toolkit. Will likely be formatted as a spreadsheet and expects that the team completing it map out detailed information of the cost estimates and implications of implementing this RapidPro project design.

### Flow (RapidPro flow)

The architecture of a specific conversation you might hold with a user through RapidPro. The recommended structure includes an introduction, messages that are concise and written with the audience in mind (using familiar terms and made to sound welcoming), questions provided with the intention of gathering information, options clearly provided within the questions, all responses categorized, and all streams of conversation wrapped up at the end with a gracious conclusion and a clear instruction on what the user should expect next.

### Implementation

The process of taking the underlying strategy and more concrete RapidPro flow(s) as developed using this toolkit, and the project planning documents developed later, and beginning to put the actual RapidPro creation into place.

### Indicator mapping

Required project-planning document to be completed after this toolkit. Will likely be formatted as a spreadsheet. Guides the team in taking the RapidPro flow(s), known message costs, and initial estimates on numbers of users; and then to start quantifying the number of messages that will be sent and received in a given period of time. These estimates will feed directly into the project financial plan or budget, and will also be documented as part of the workplan.

#### Infrastructure

The processes and rules that underly the movement and completion of almost all civic activities. Infrastructure is most often use in relation to distribution (transportation, roads) but also relates to distribution and governing of finances; processes and recording of registration paperwork; and myriad other practical processes.



#### **GLOSSARY**

#### Needs

Goods, services, and legal recognition that is needed by users to lead a healthy and empowered life, and that the Juser is not receiving. The gap may be the result of the users not being able to reach what they need, or responsible people or groups failing to provide what is needed, or both.

### **Partnerships**

Collaborative arrangements linking the resources, connections, and expertise of UNICEF with those of like-minded institutions and NGOs. If no partnerships currently exist, they may need be considered during project planning stage that follows this toolkit.

### Registries and vital events tracking

A function supported by RapidPro. Usually involves feeding information on births, deaths, and other major life events to central registries, more quickly facilitating the creation of national identification numbers and providing more accurate population statistics.

#### Reminders

A function supported by RapidPro. Usually involves reminding health workers of pending tasks, or reminding patients of appointments they still need to schedule.

### **SMS**

"Short Message Service", the simple text messaging component of most mobile phones. Messages can be up to 160 characters.

### Supply chain management

A function supported by RapidPro. Typically deals with managing stocks and tracking movements of essential supplies. Also can allow for supply redistribution if determined necessary or if dealing with crises.

### **Telecommunications service providers**

Also "wireless communications service providers". These are the companies providing mobile phone service and network, and with whom you will likely need to partner at some point for smartcodes or rate negotiations.

#### User

In this toolkit, a "user" can be the initiators of a RapidPro flow, the recipients of those messages, people and groups who need to view the information compiled through RapidPro, or even the end-users who are receiving the final services and goods that are a later result of a RapidPro project.

### Worker planning and scheduling

A function supported by RapidPro. Allows central offices to keep front-line workers informed of new policies, to conduct training, to provide them with crucial time-sensitive information, and to promote accountability.

### Workplan

Required project-planning document to be completed after this toolkit. Combines the project strategy with the practical steps, timeline, financial information, and division of responsibilities that will take place in the design and implementation of the RapidPro project. Used for office documentation, for building consensus, or for sharing with donors.



### Resources

### <rapidprocurriculum>.com

### RapidPro interactive curriculum

Learn more about design-thinking, building RapidPro flows, and using the RapidPro interface in a series of short lessons.

### <rapidprotoolkit>.com

### RapidPro toolkit site

Serves as a centralized location for all resources and guidance relating to the design and implementation of a RapidPro project. Toolkit PDFs can be downloaded here, as well as templates and examples of all project-planning documents.

### rapidpro.io

### RapidPro website

The online space where you can create an account, start a new project, build out RapidPro flows for communications channels, and start structuring the data aggregation.

See also docs.rapidpro.io, a comprehensive guidance on the functionalities and terms within RapidPro.

### <rapidprotutorialvideos>.com

### Video tutorials

View quick video instructions on using various aspects of the RapidPro platform.

