IcePAK

Team

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Problem

- Globally, there are over 3 million deaths per year from vaccine-preventable diseases
- Most of these occur in developing countries
- Over half of those are children under 5

Challenge

- Vaccines require specific storage requirements
- Inability to properly store vaccines can impact distribution
- Affected areas often have low visibility
- Current data is difficult and time consuming to reason about and process

Solution

- Make data easy to consume
- Highlight problem areas
- Make recommendations on future resource use
- Make it easy to update

Technology

- Touch screen mobile device
- Android
- Nexus 7
- D3.js visualization library

Accessibility

- Variety of visualizations
  - Many use cases
- Smart color coding
  - Fast to process
- Keep superfluous information at bay
  - Focus on what you need

Visibility

- Visual
  - Color coding
- Spacial
  - Dedicated graph space
  - Clear orderings
- Deep
  - Explore this problem area, right now

Guidance

- Who is most served by new resources?
- How many and where?
- What difference will it make?

Extention

- Easy to update
- Updates quickly
- Use data in existing format

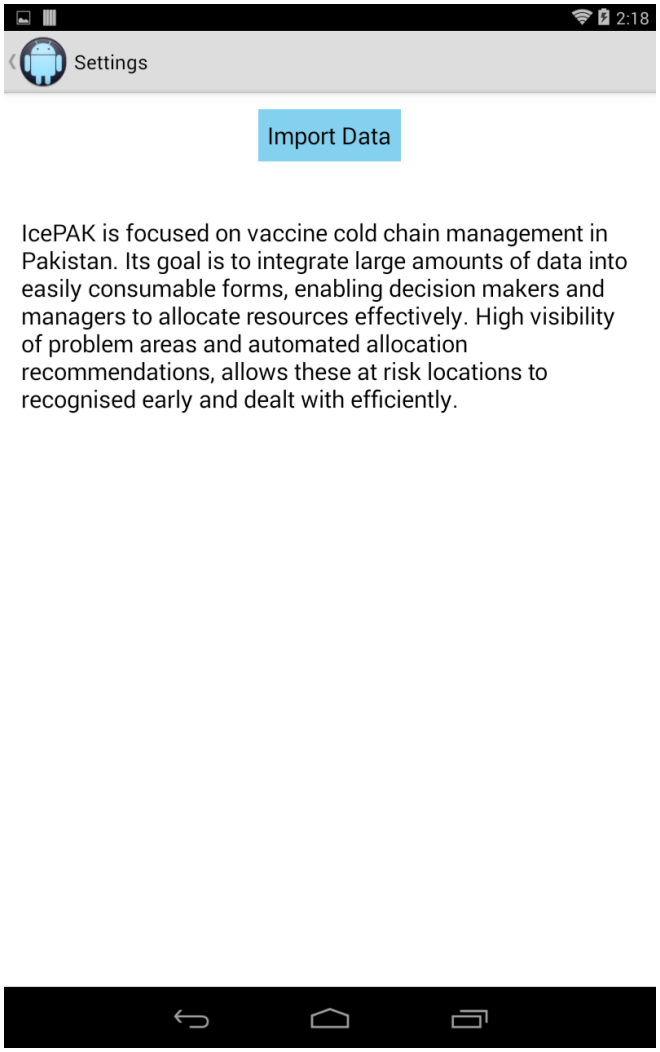
Demo

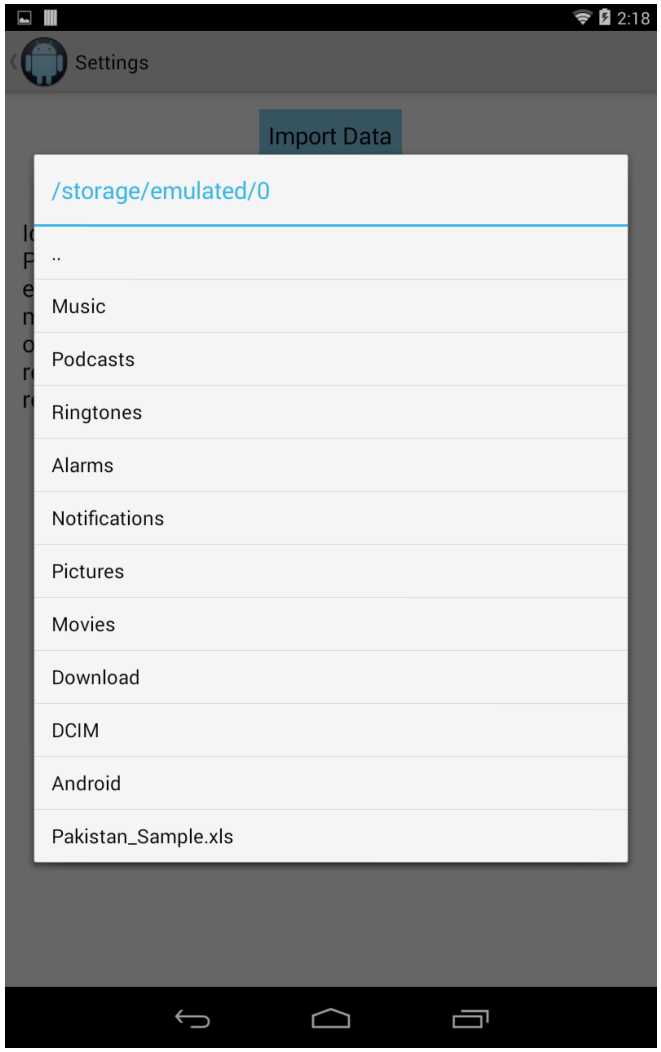
Demo

- We are a manager in Pakistan
- Data for June 2014 just arrived

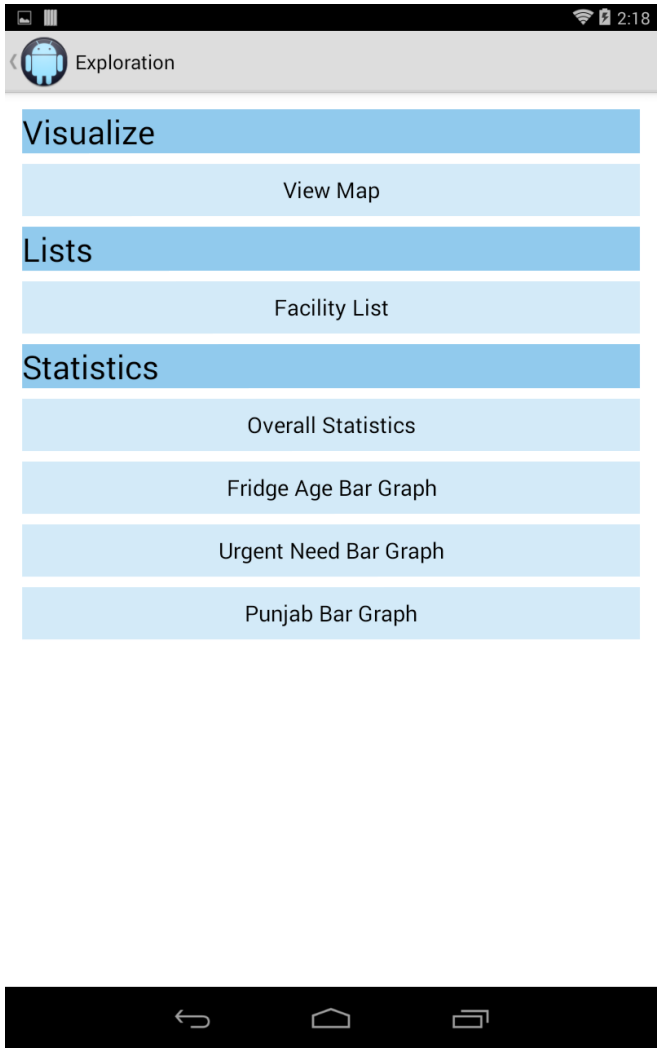
Demo

Demo

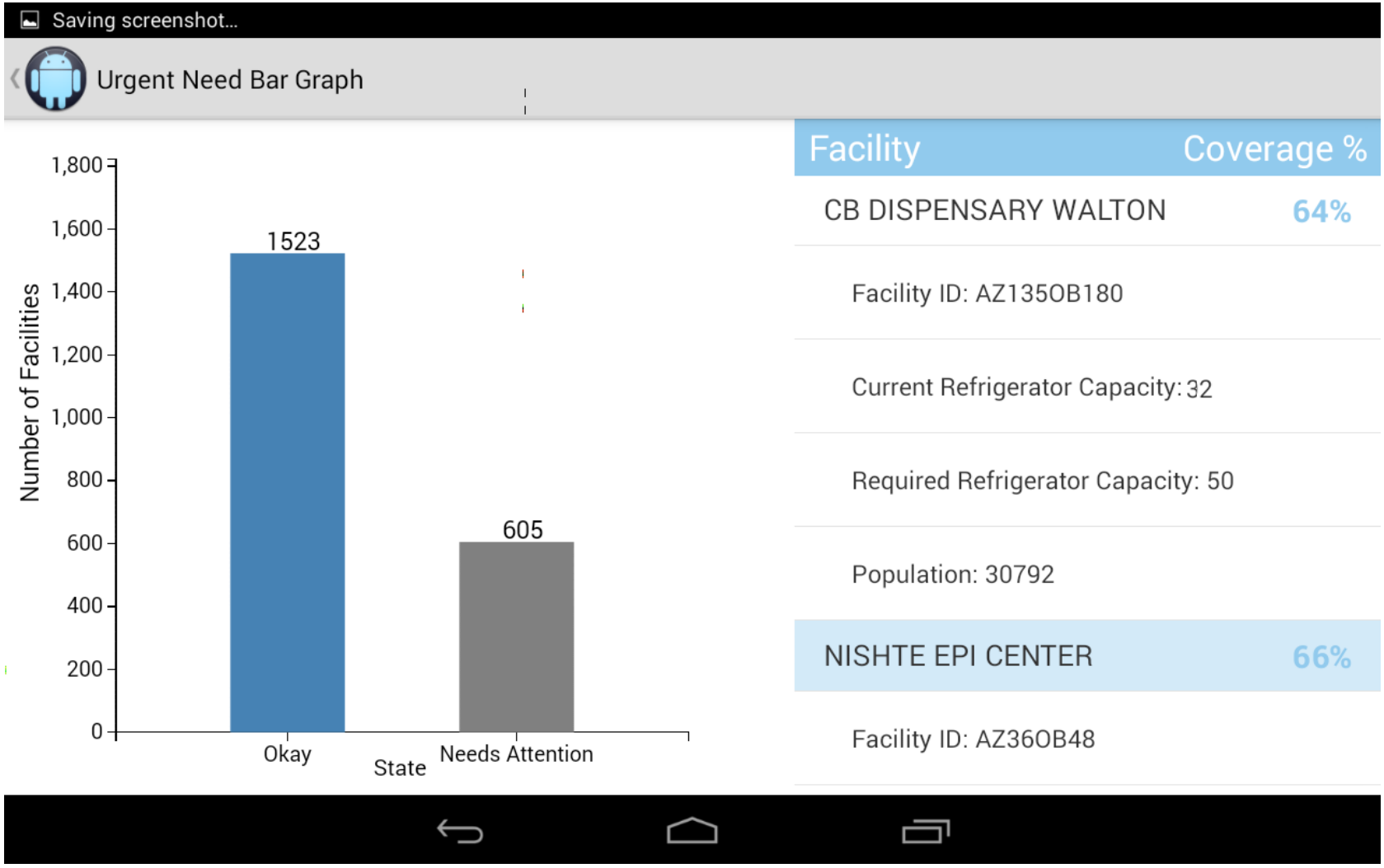

2:18
Settings
Import Data
IcePAK is focused on vaccine cold chain management in Pakistan. Its goal is to integrate large amounts of data into easily consumable forms, enabling decision makers and managers to allocate resources effectively. High visibility of problem areas and automated allocation recommendations, allows these at risk locations to recognised early and dealt with efficiently.


2:18
Settings
Import Data
/storage/emulated/0
..
Music
Podcasts
Ringtones
Alarms
Notifications
Pictures
Movies
Download
DCIM
Android
Pakistan_Sample.xls

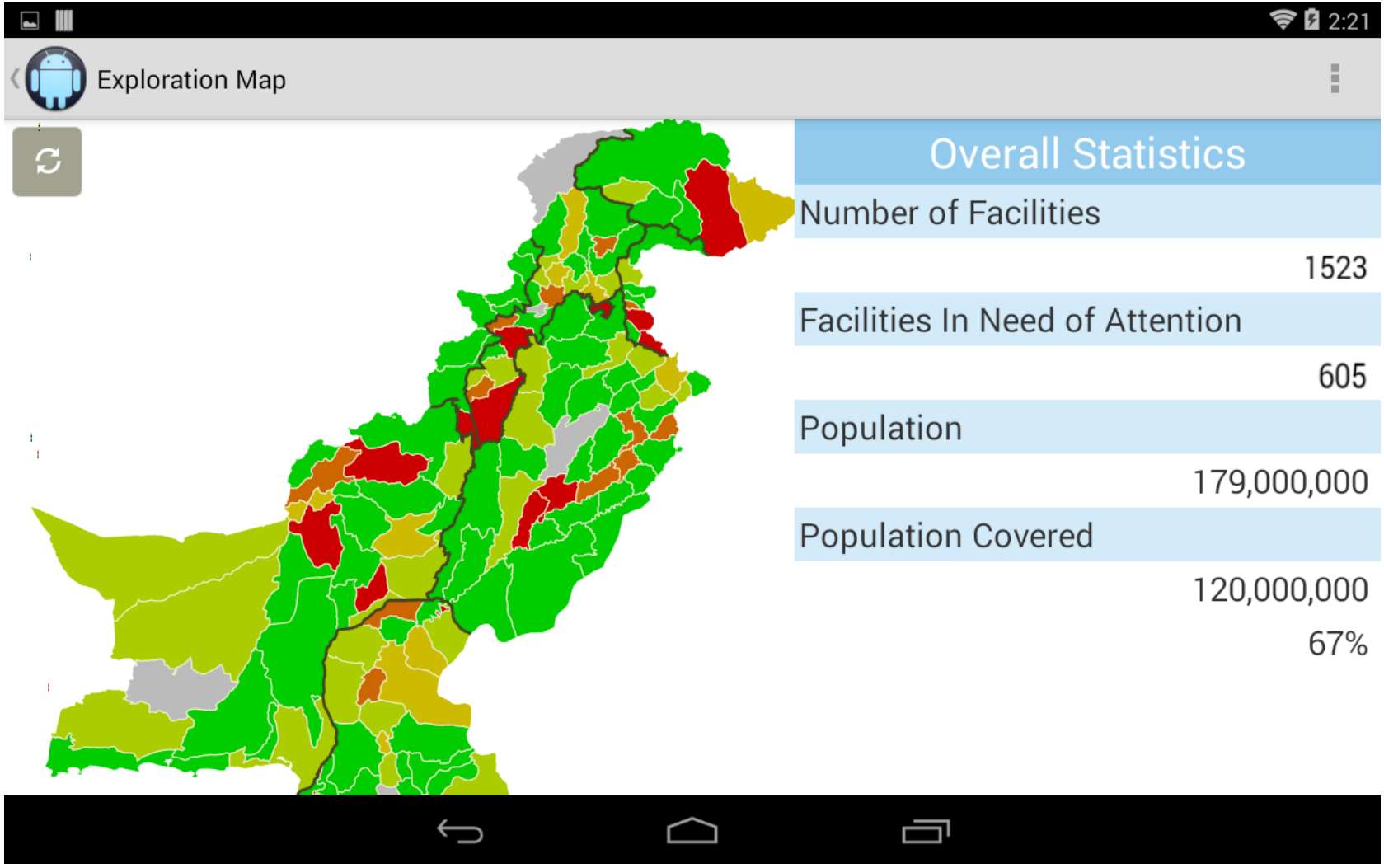
Demo


2:18
Exploration
Visualize
View Map
Lists
Facility List
Statistics
Overall Statistics
Fridge Age Bar Graph
Urgent Need Bar Graph
Punjab Bar Graph

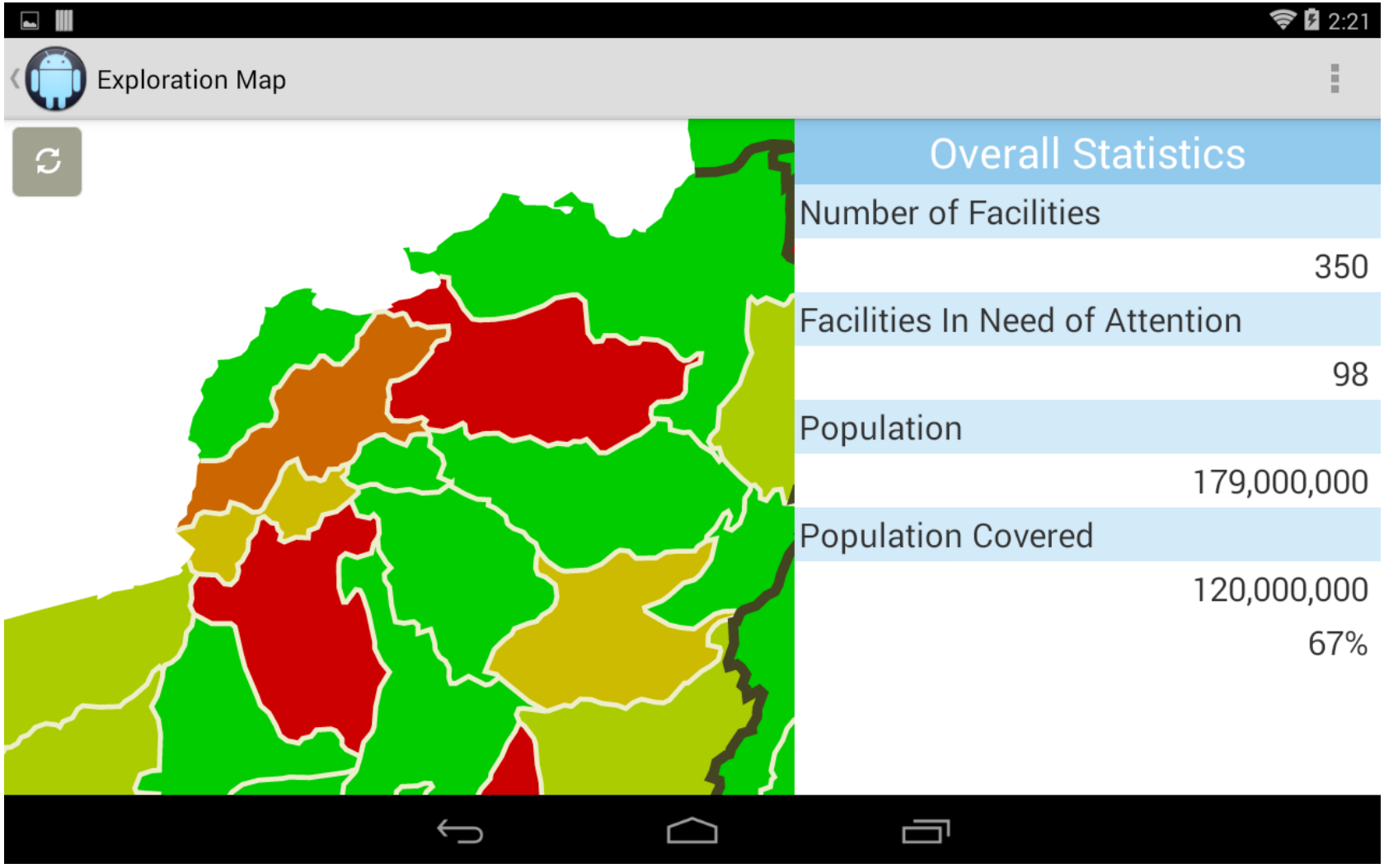
Demo


Saving screenshot...
Urgent Need Bar Graph
1,800
1,600
1,400
1,200
1,000
800
600
400
200
0
Number of Facilities
1523
605
Okay
Needs Attention
State
Facility
Coverage %
CB DISPENSARY WALTON
64%
Facility ID: AZ135OB180
Current Refrigerator Capacity: 32
Required Refrigerator Capacity: 50
Population: 30792
NISHTE EPI CENTER
66%
Facility ID: AZ36OB48

Demo

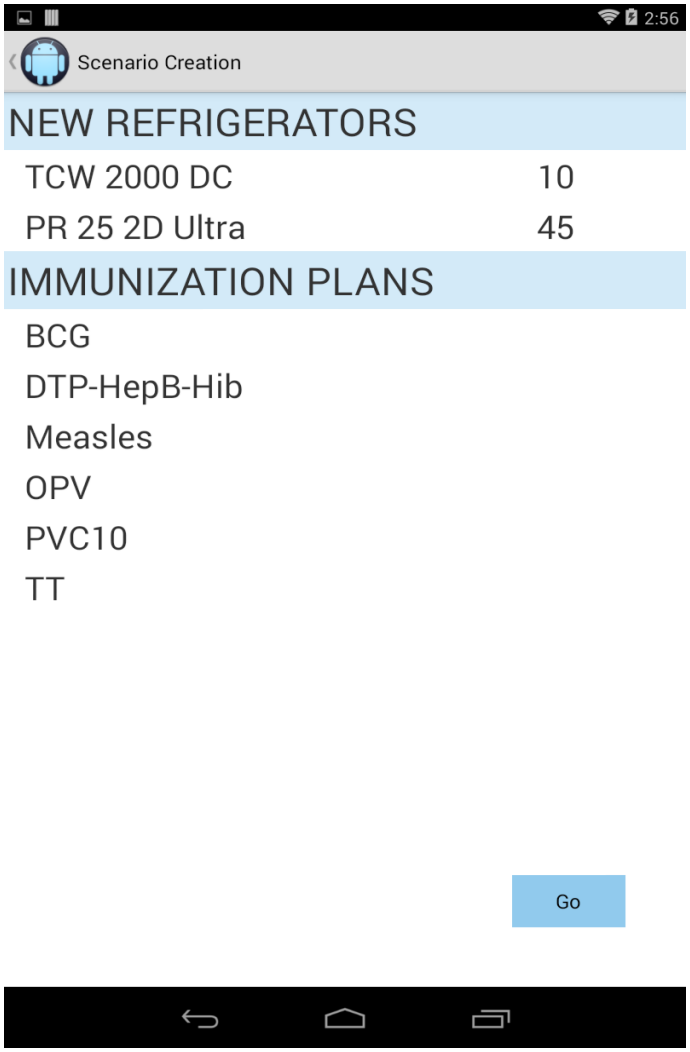

2:21
Exploration Map
Overall Statistics
Number of Facilities
1523
Facilities In Need of Attention
605
Population
179,000,000
Population Covered
120,000,000
67%

Demo

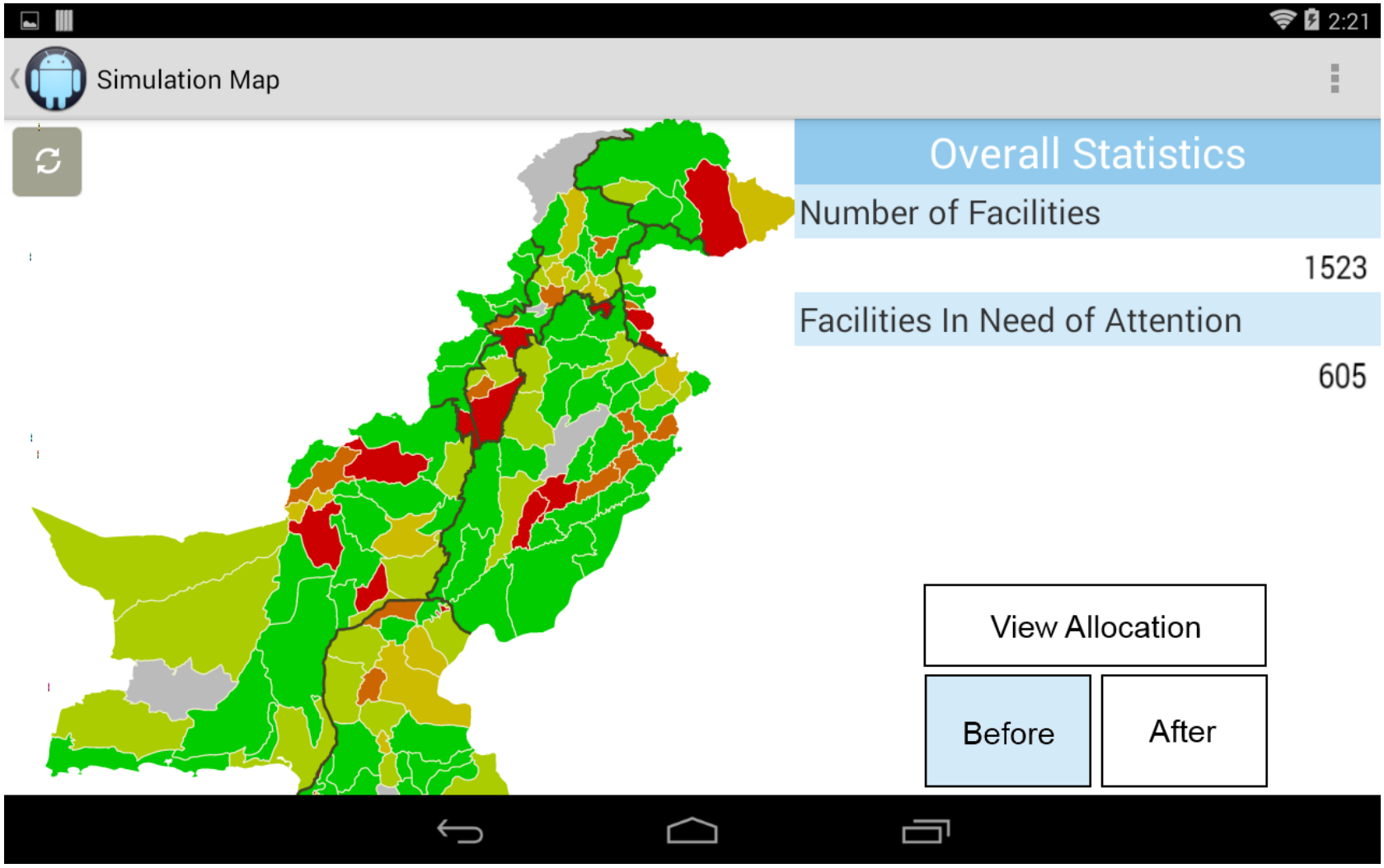

2:21
Exploration Map
Overall Statistics
Number of Facilities
350
Facilities In Need of Attention
98
Population
179,000,000
Population Covered
120,000,000
67%

Demo

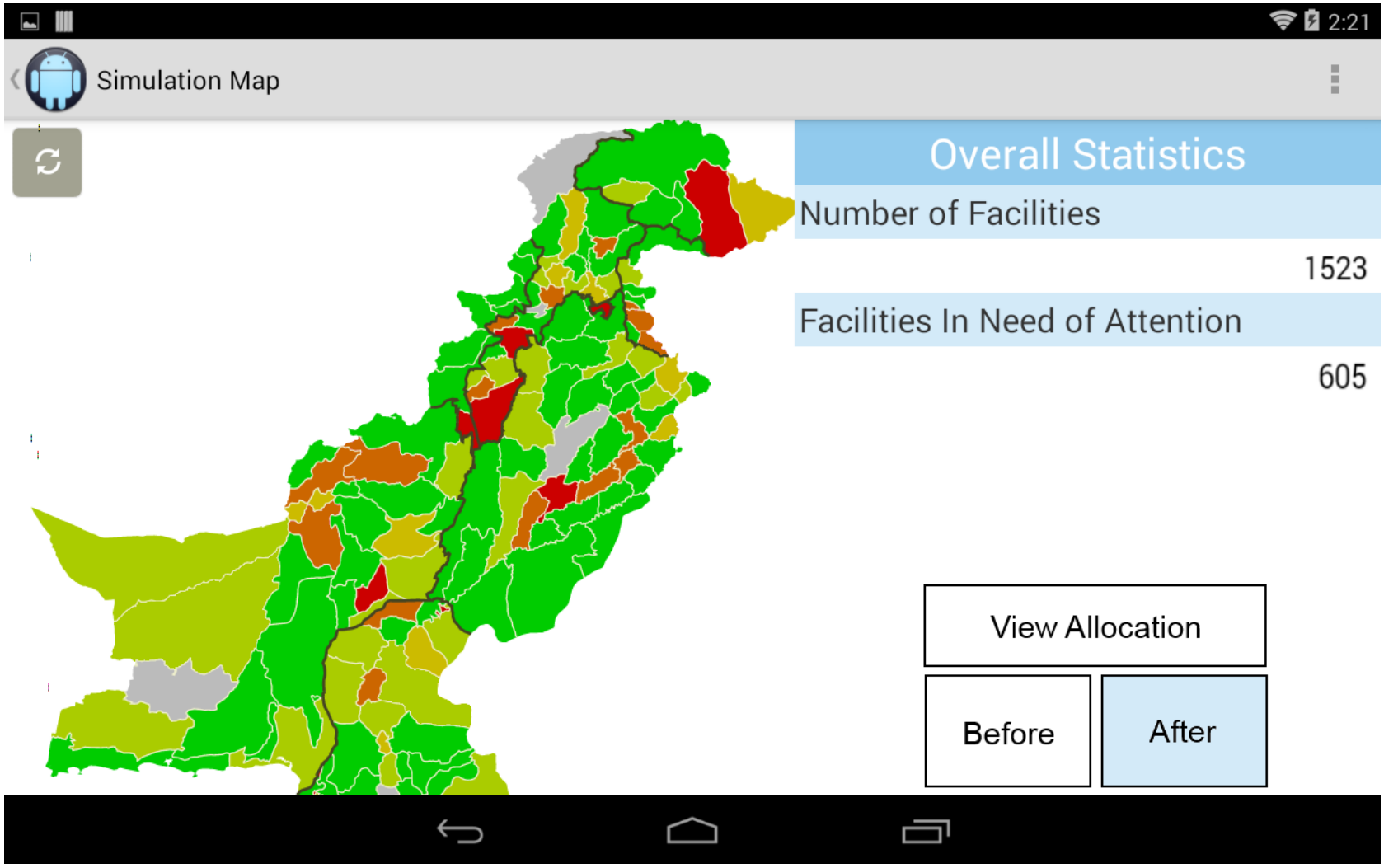
Demo


2:56
Scenario Creation
NEW REFRIGERATORS
TCW 2000 DC
10
PR 25 2D Ultra
45
IMMUNIZATION PLANS
BCG
DTP-HepB-Hib
Measles
OPV
PVC10
TT
Go

Demo


2:21
Simulation Map
Overall Statistics
Number of Facilities
1523
Facilities In Need of Attention
605
View Allocation
Before
After

Demo


2:21
Simulation Map
Overall Statistics
Number of Facilities
1523
Facilities In Need of Attention
605
View Allocation
Before
After

Thank you

Questions?