The Sum of it's Parts: Integrated Disease Surveillance and Response - the Story of Liberia's Growing Health Information System

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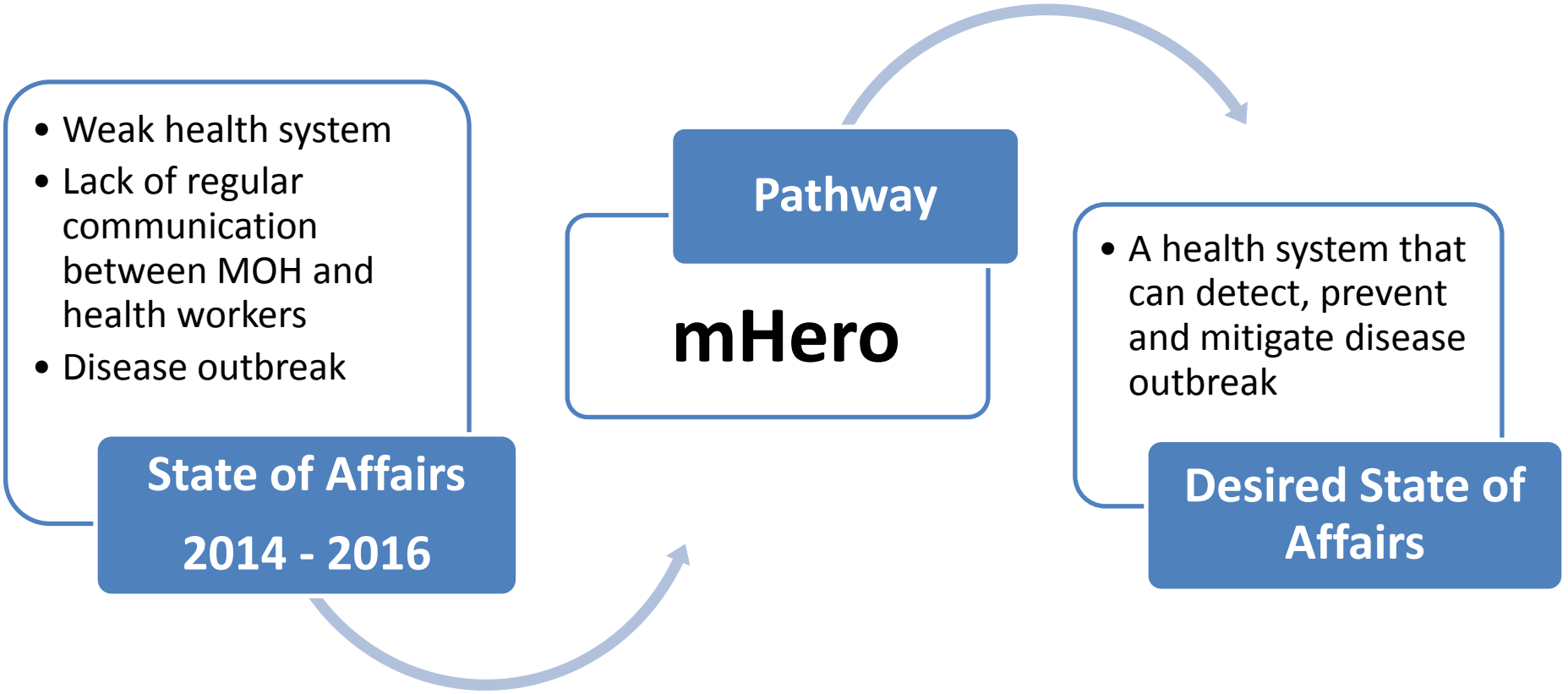
The Problem… and the Solution

Liberia: The State of Affairs

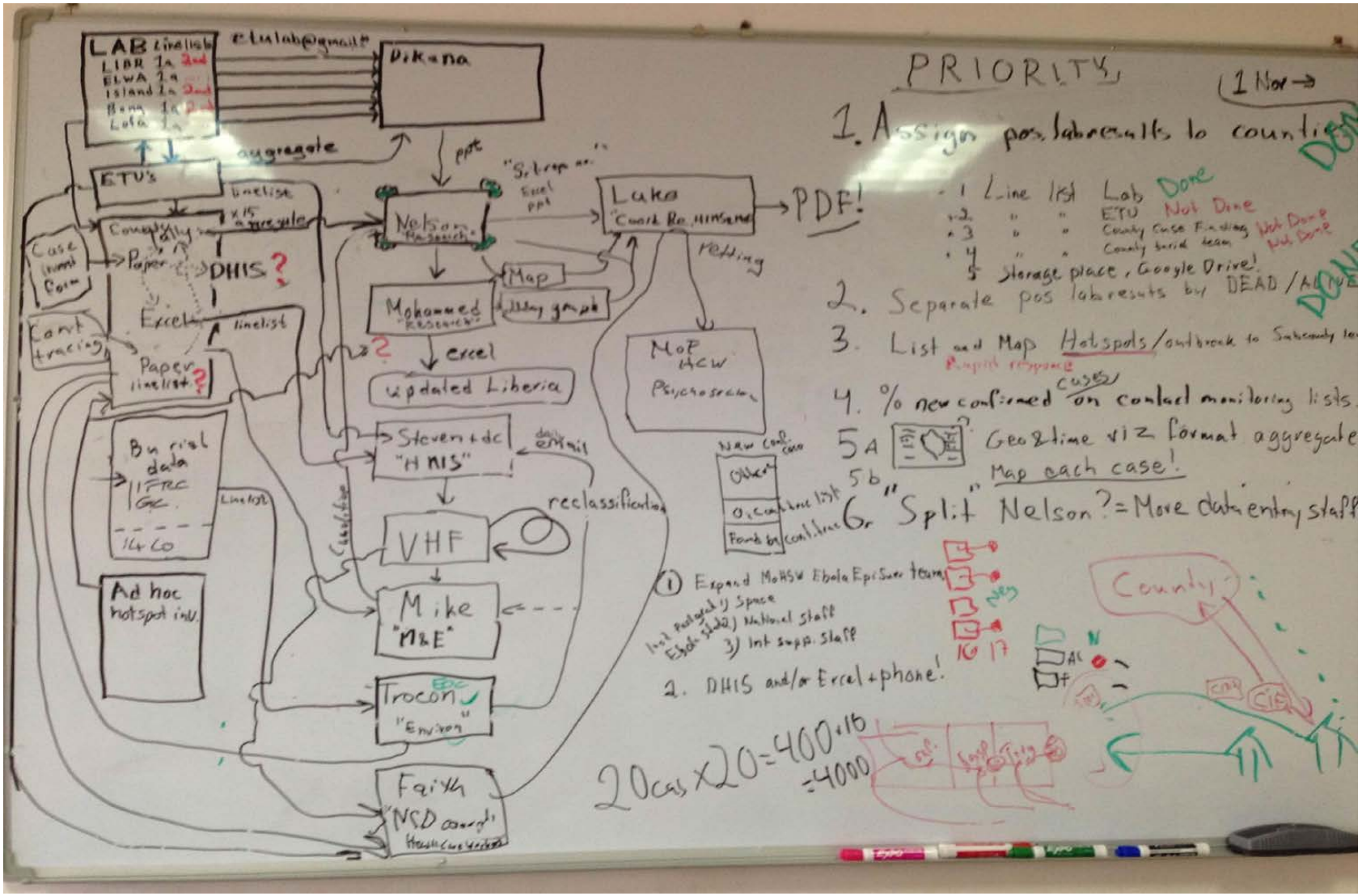


USAID FROM THE AMERICAN PEOPLE

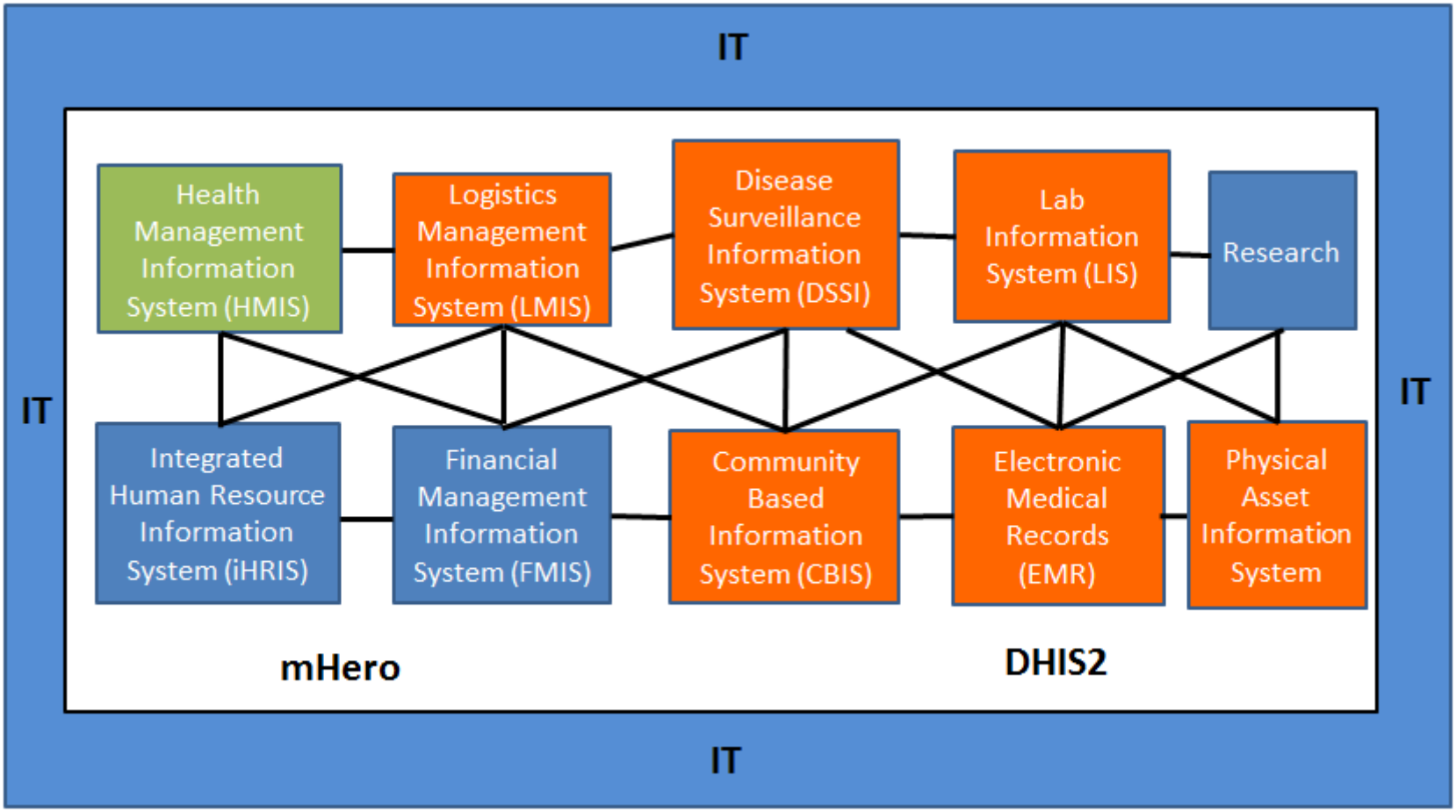
IntraHealth INTERNATIONAL

K4Health Knowledge for Health

Ebola Outbreak Data Flow

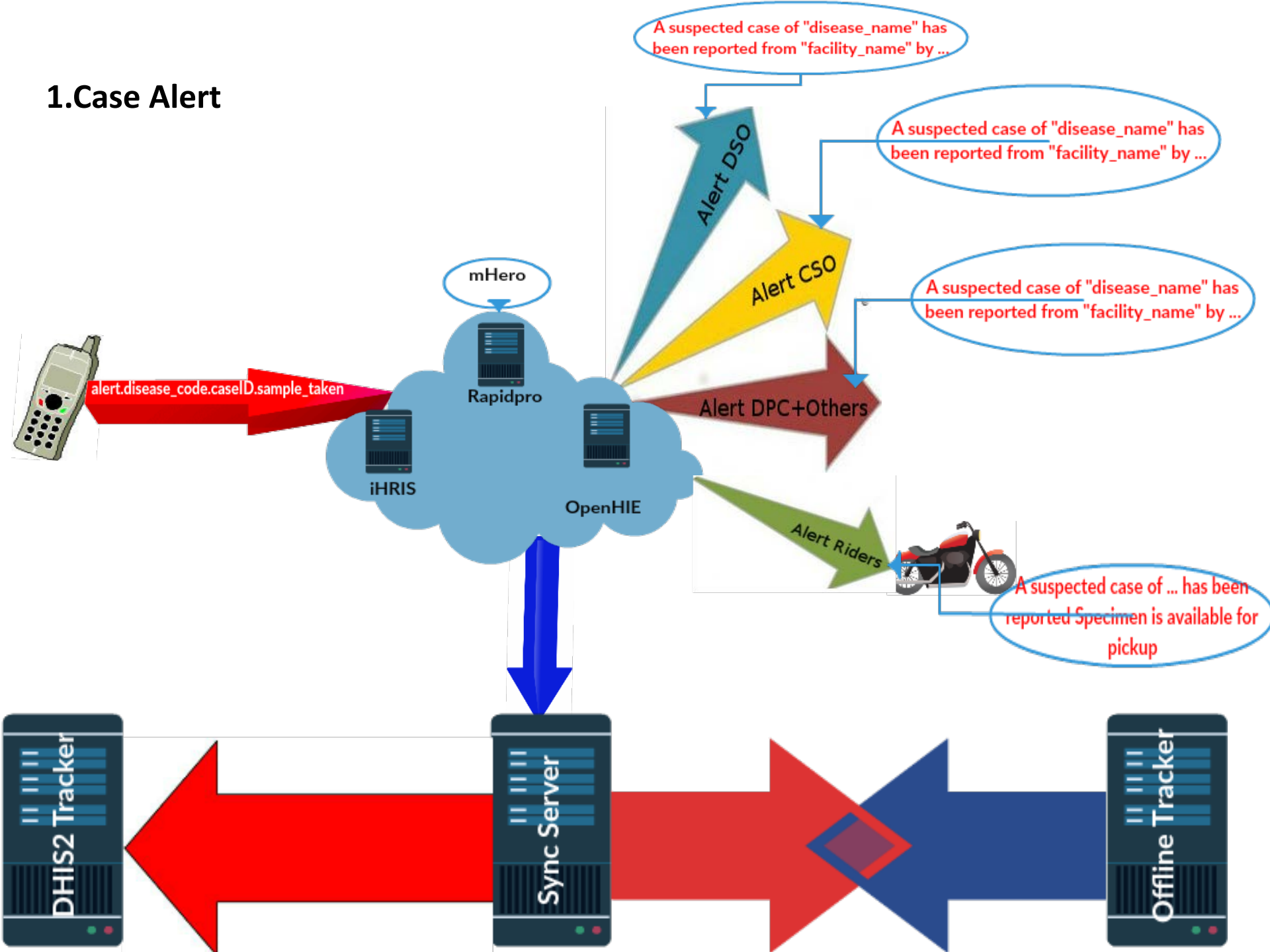


Liberia HIS

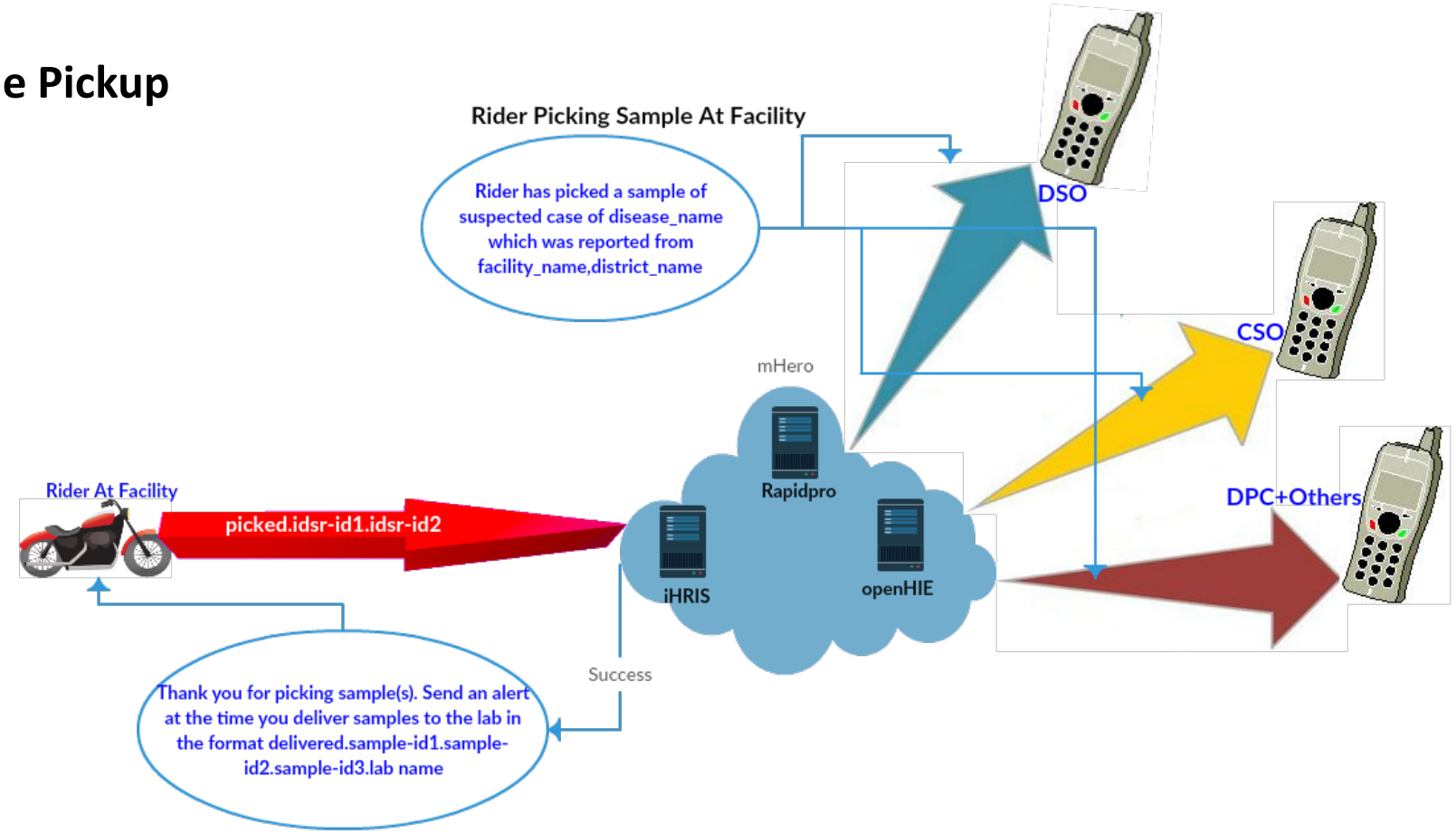

IT
IT
IT
IT
Health Management Information System (HMIS)
Logistics Management Information System (LMIS)
Disease Surveillance Information System (DSSI)
Lab Information System (LIS)
Research
Integrated Human Resource Information System (iHRIS)
Financial Management Information System (FMIS)
Community Based Information System (CBIS)
Electronic Medical Records (EMR)
Physical Asset Information System
mHero
DHIS2

eIDSR Use Cases

1.Case Alert


A suspected case of "disease_name" has been reported from "facility_name" by ...
Alert DSO
A suspected case of "disease_name" has been reported from "facility_name" by ...
Alert CSO
A suspected case of "disease_name" has been reported from "facility_name" by ...
mHero
alert.disease_code.caseID.sample_taken
Rapidpro
iHRIS
OpenHIE
Alert DPC+Others
Alert Riders
A suspected case of ... has been reported Specimen is available for pickup
DHIS2 Tracker
Sync Server
Offline Tracker

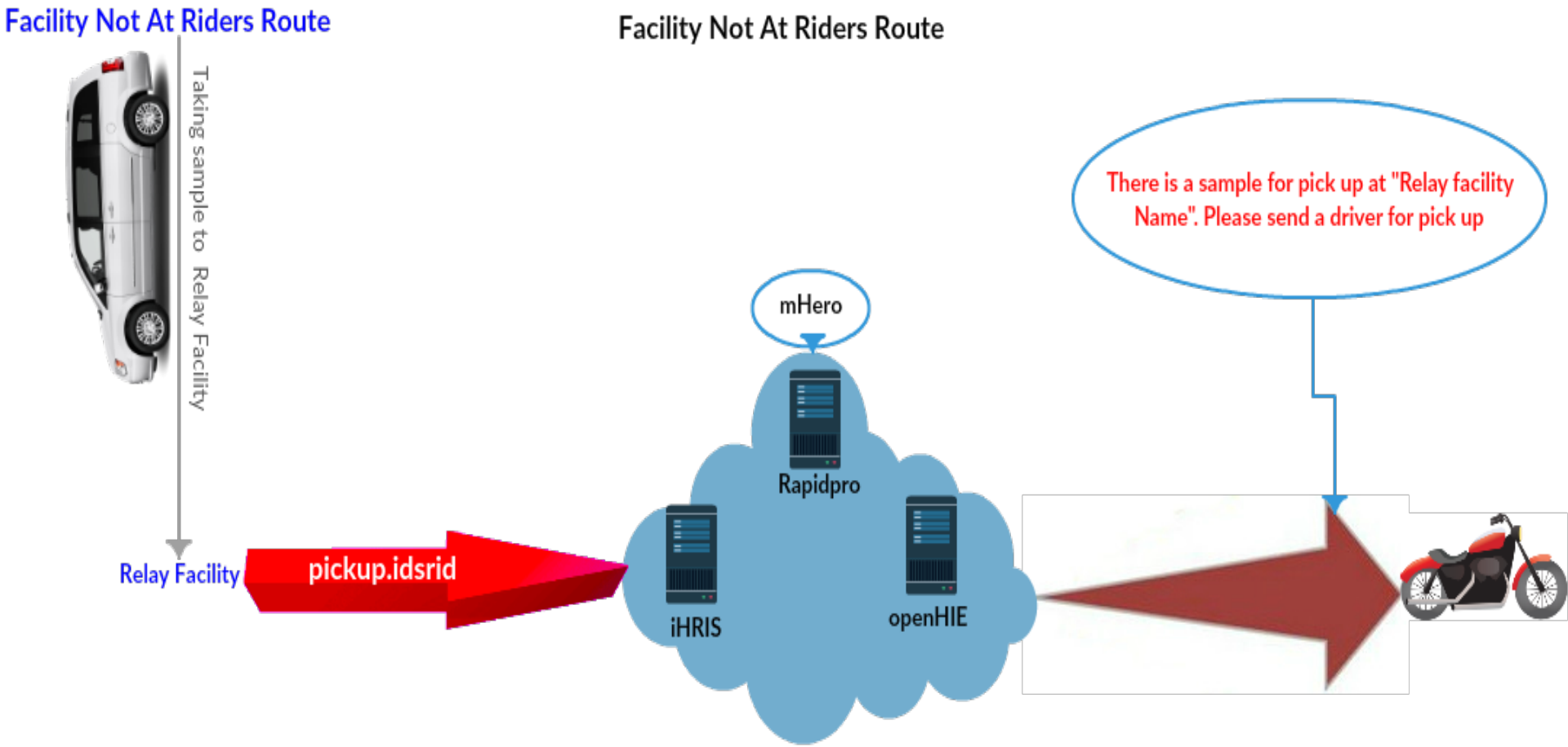
2.Sample Pickup



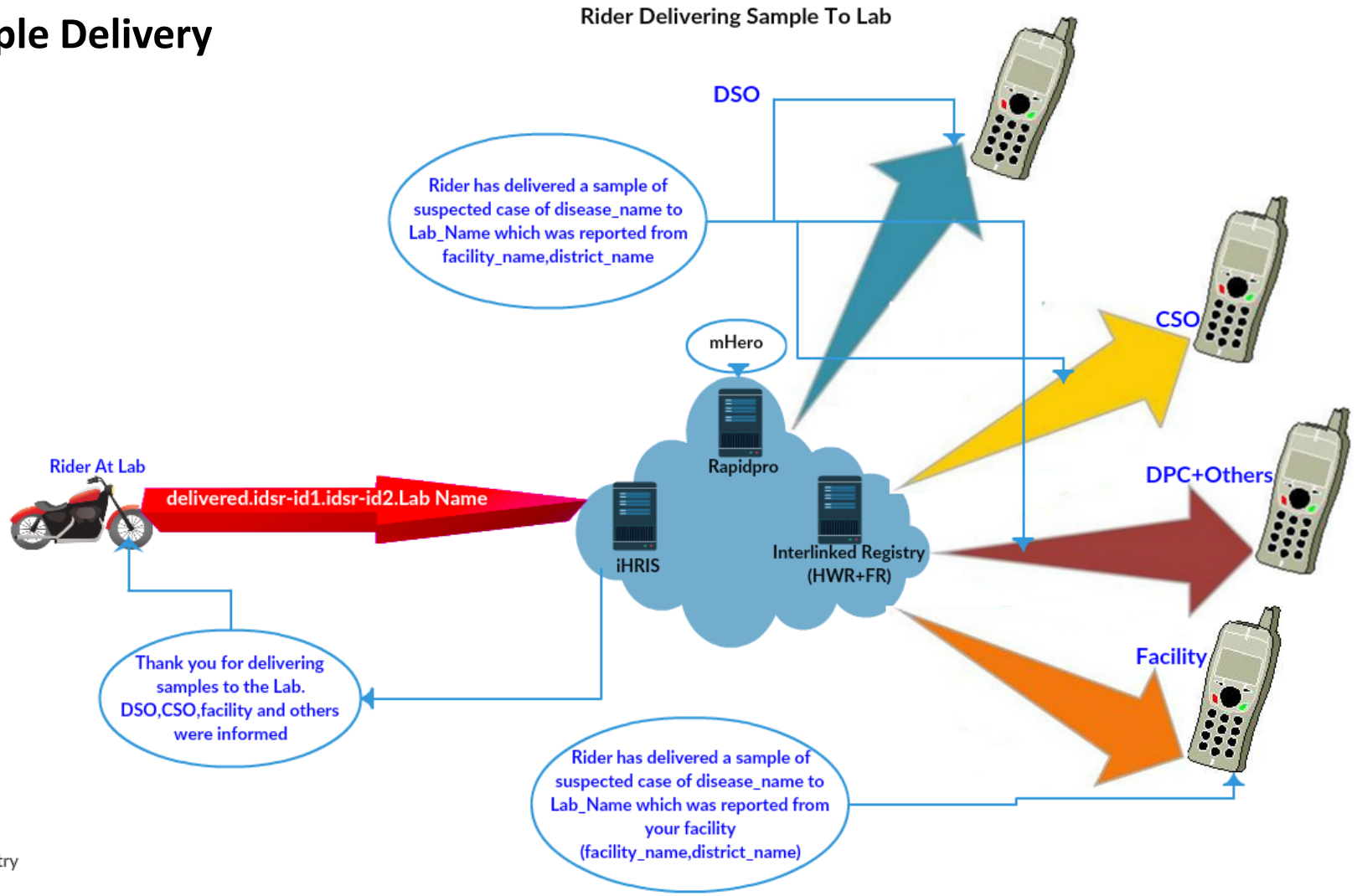
KEY
HWR = Health Worker Registry
FR = Facility Registry
iHRIS = Integrated Human Resource Information System
mHero = Mobile Health Electronic Response And Outreach

creately
www.creately.com • Online Diagramming

3.Sample Pickup Relay Facility



4.Sample Delivery



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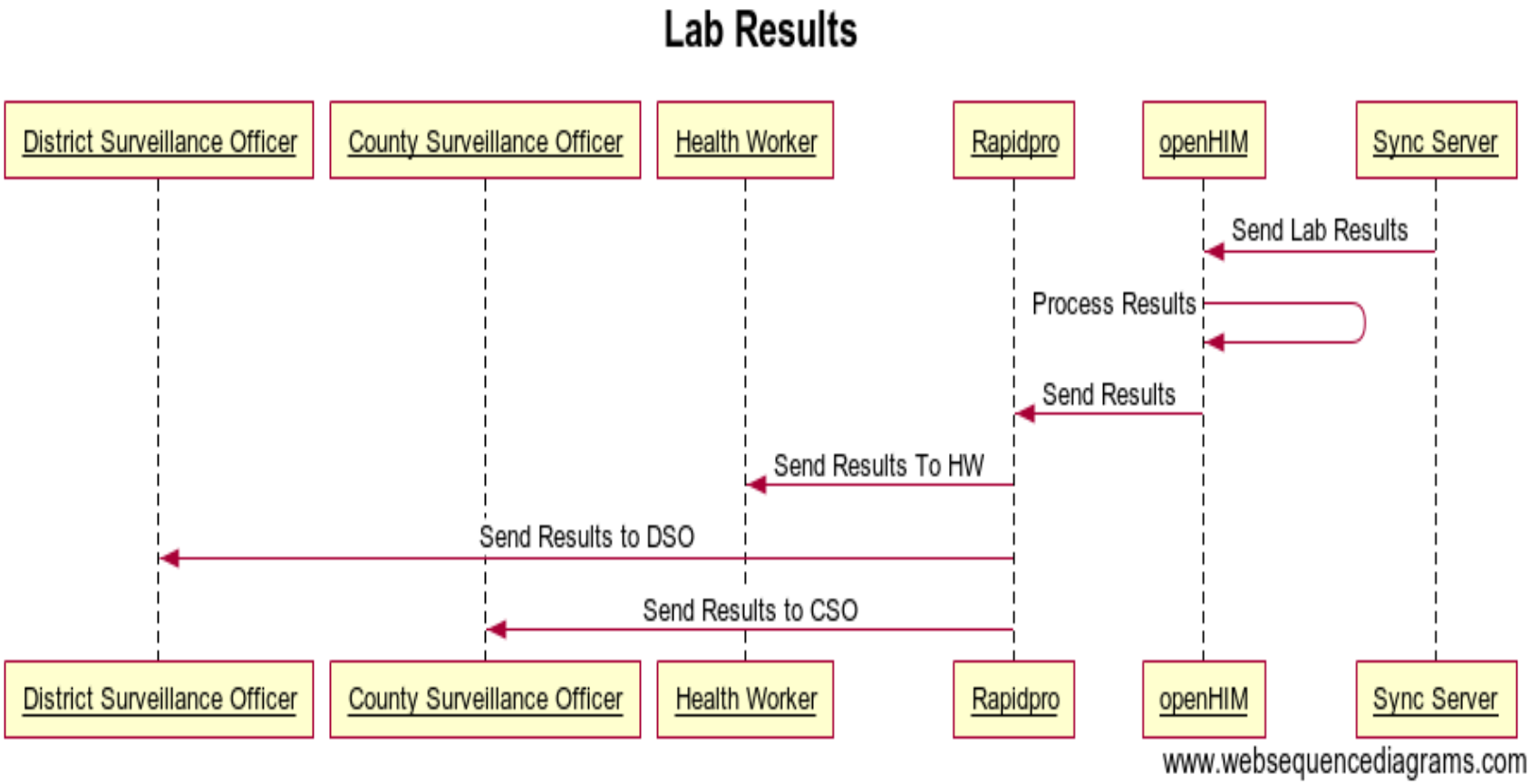
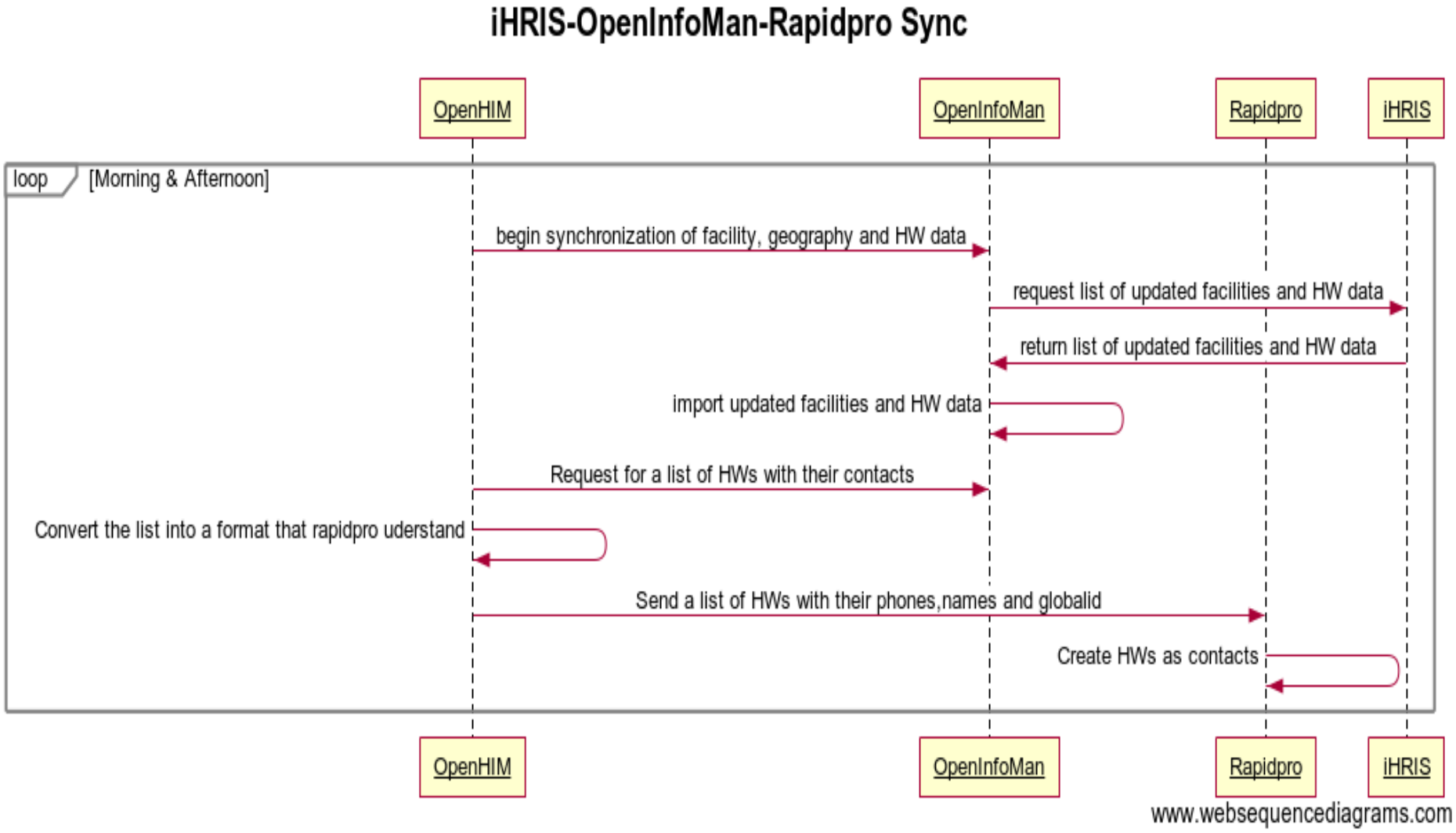
5.Lab Results

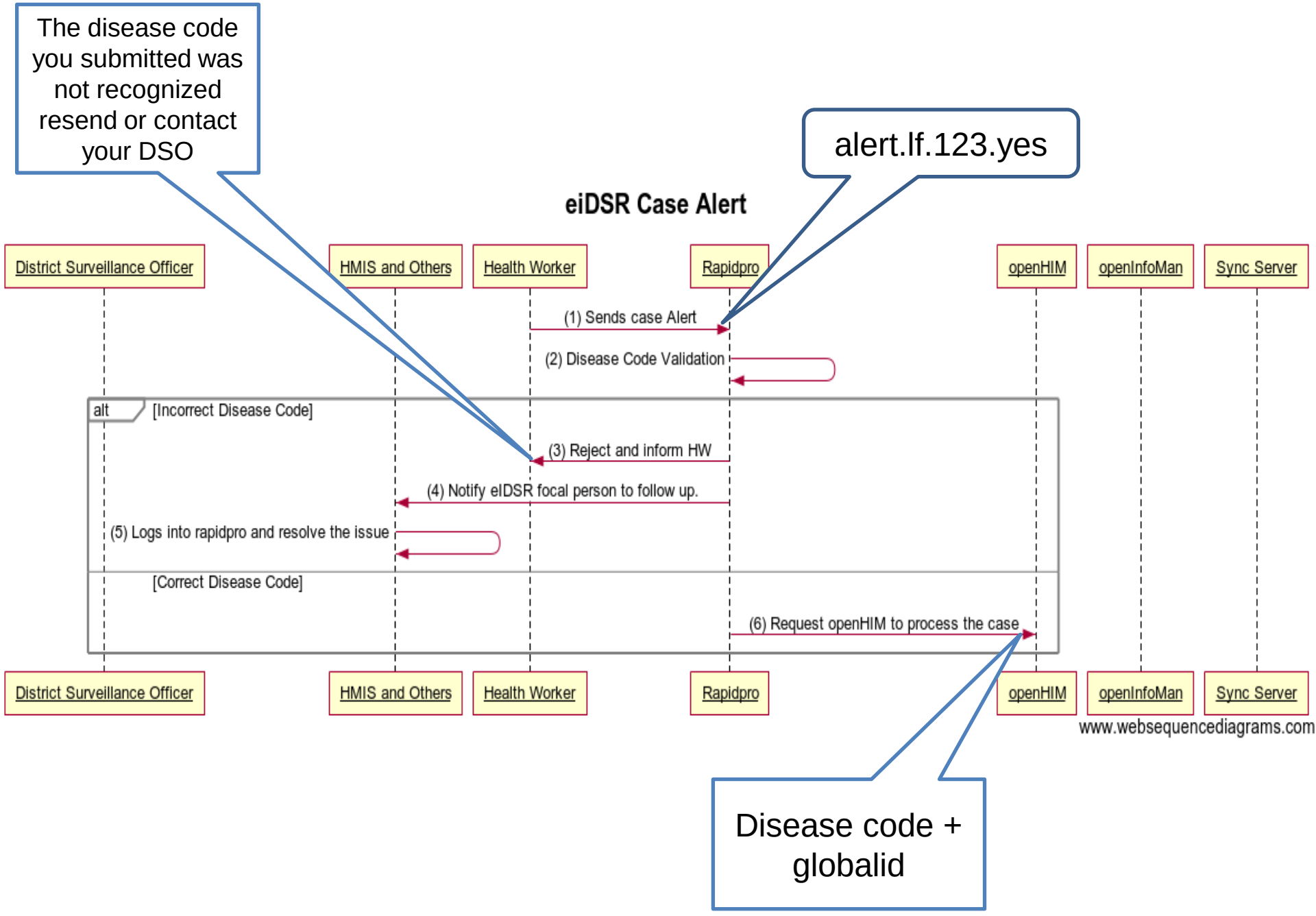


Deep Dive: eIDSR Back End Systems

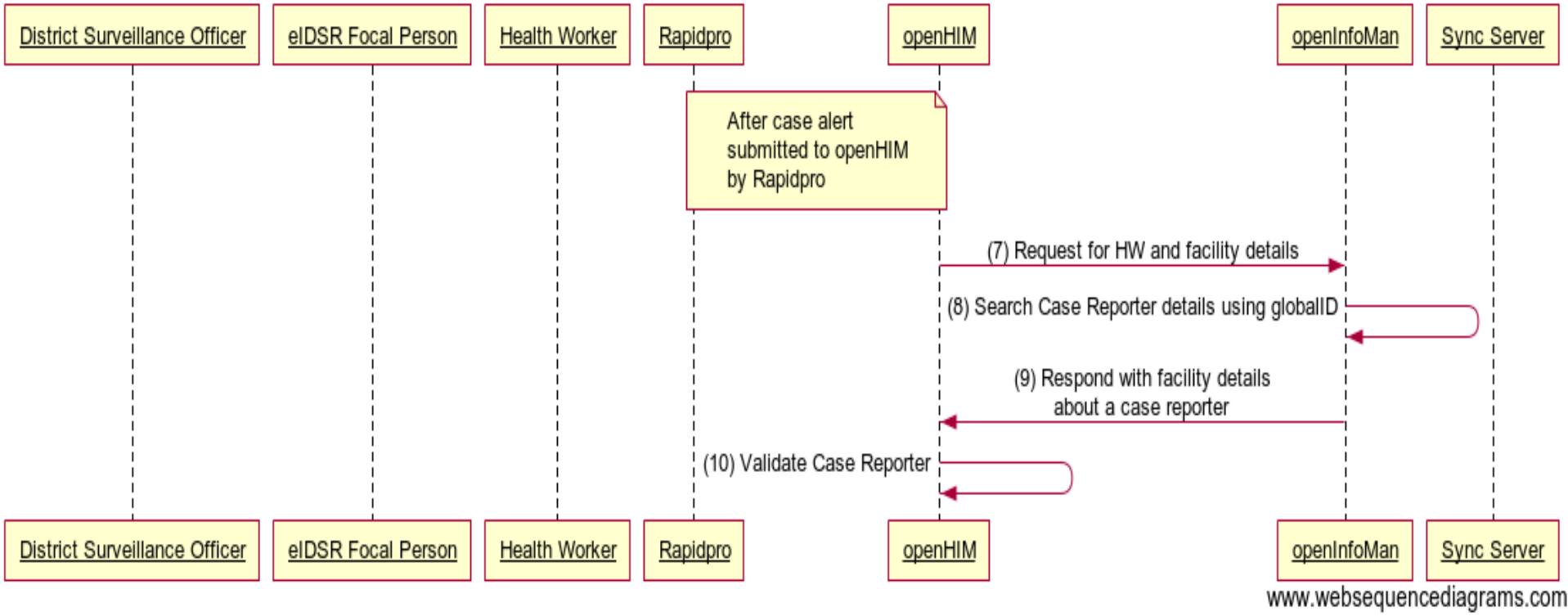
mHero Architecture



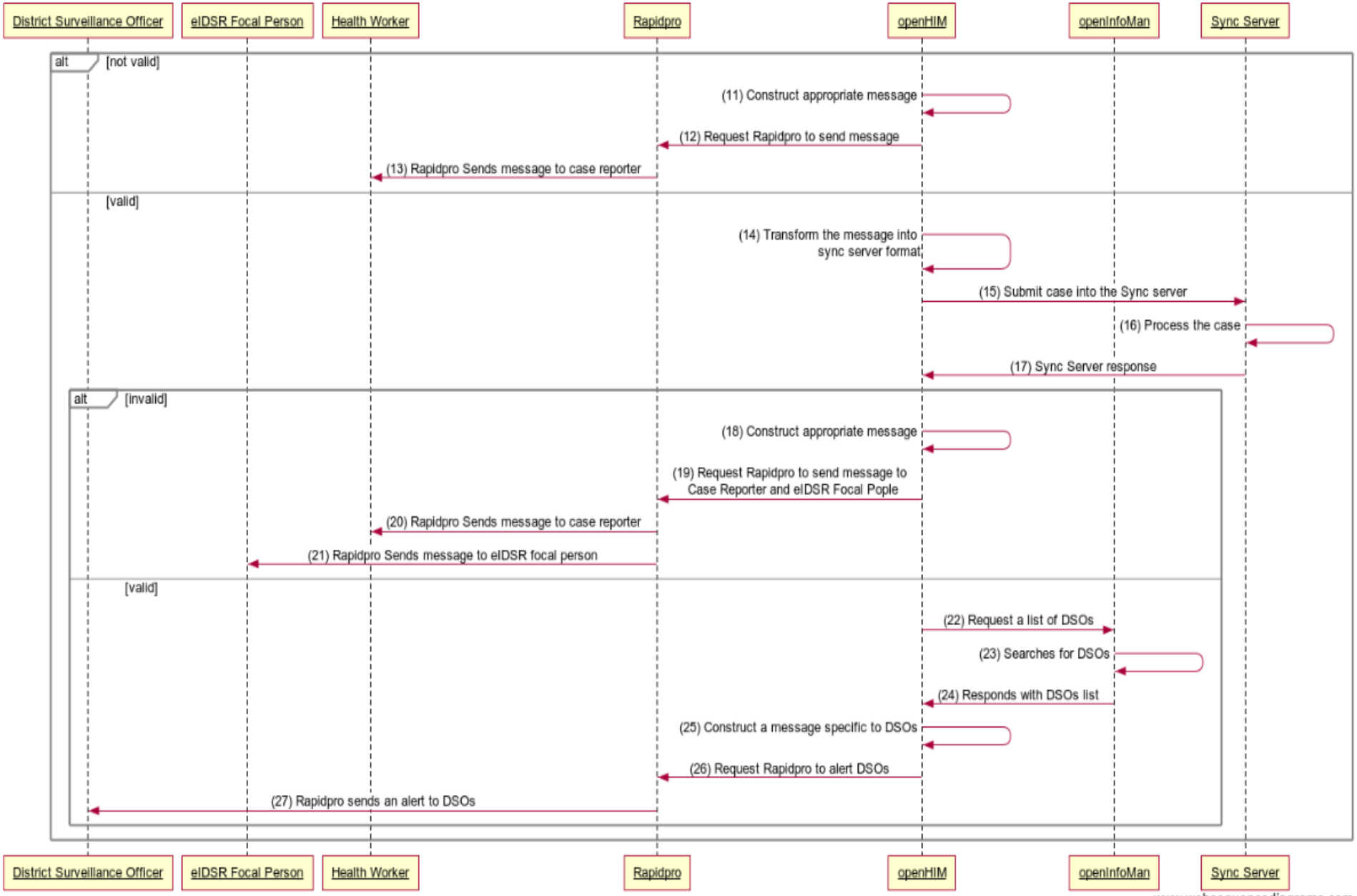
How eIDSR Works + Flow of Information


The disease code you submitted was not recognized resend or contact your DSO
alert.lf.123.yes
eiDSR Case Alert
District Surveillance Officer
HMIS and Others
Health Worker
Rapidpro
openHIM
openInfoMan
Sync Server
(1) Sends case Alert
(2) Disease Code Validation
alt
[Incorrect Disease Code]
(3) Reject and inform HW
(4) Notify eIDSR focal person to follow up.
(5) Logs into rapidpro and resolve the issue
[Correct Disease Code]
(6) Request openHIM to process the case
Disease code + globalid
www.websequencediagrams.com

eiDSR Case Alert



eiDSR Case Alert



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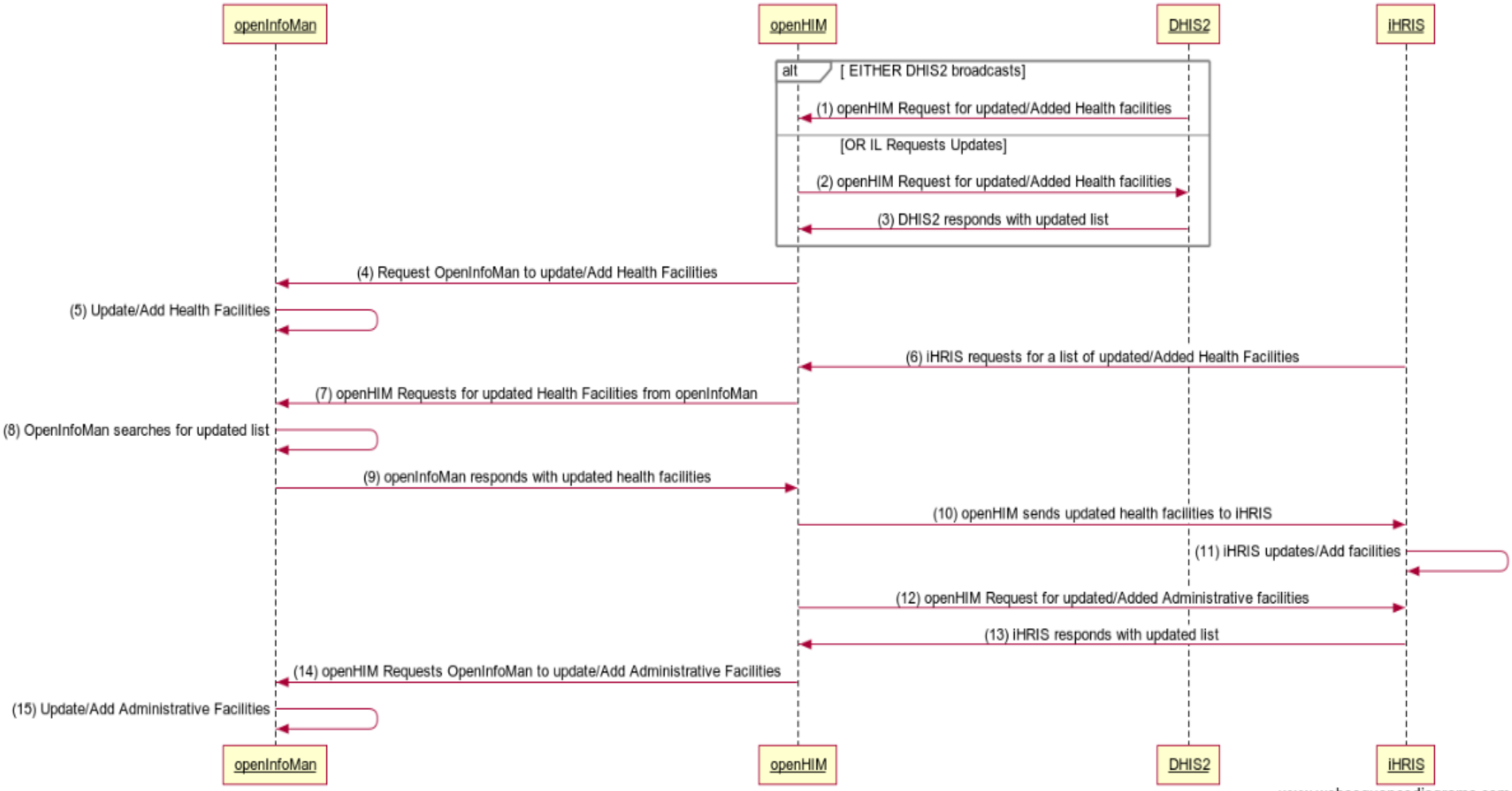
iHRIS and DHIS2 Facility Sync



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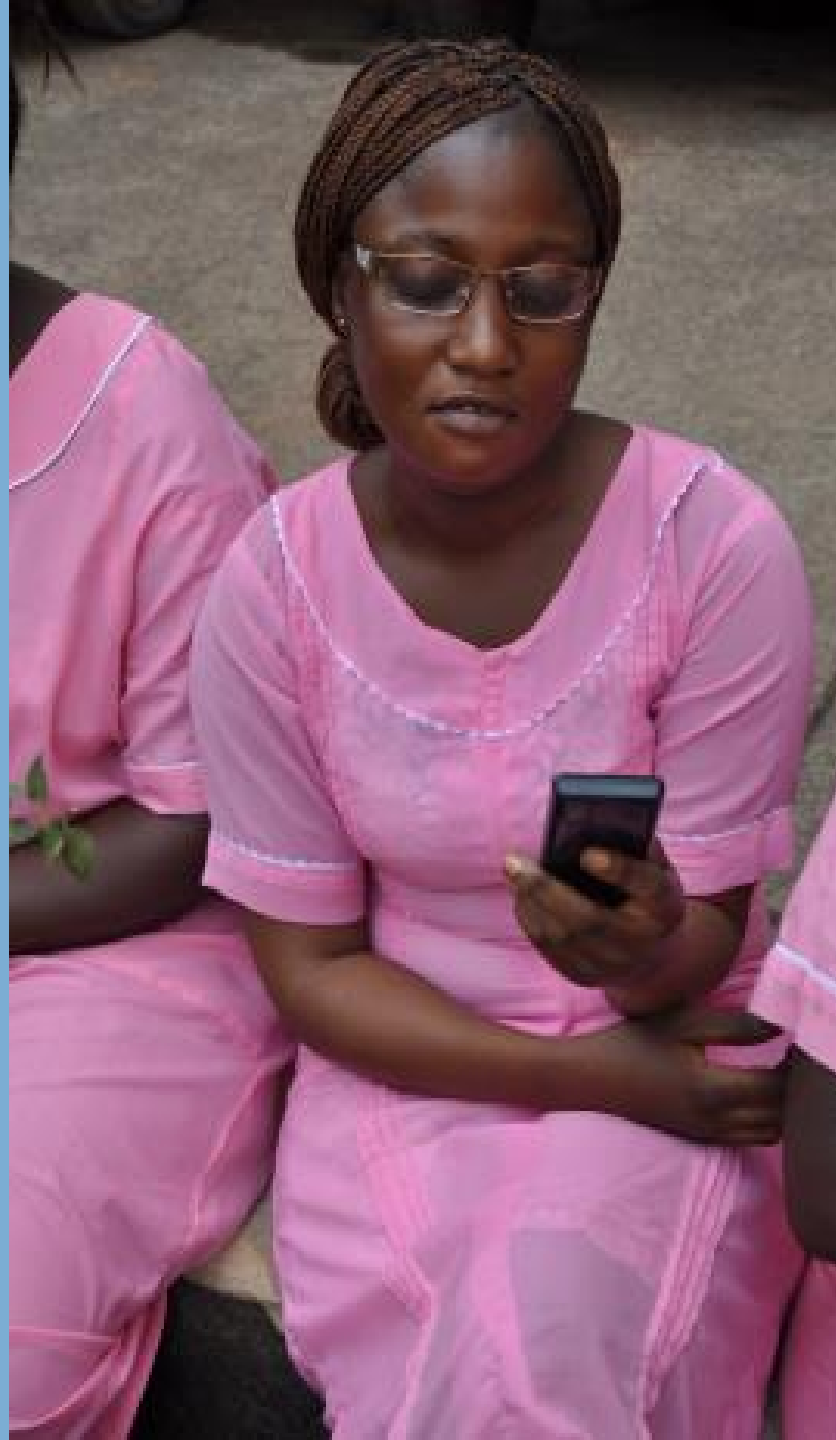
Putting it All Together: The Human Side

eIDSR Development

- Requirements Gathering
- Technology Development
- Virtual Teamwork
- eIDSR TWG



Building Capacity
Daily Management
Continuous Adaptation

Sustainability

Integration into HIS

Governance

Organizational Competencies

Decentralization

Ministry led Management and Maintenance

USAID

IntraHealth

K4Health Knowledge for Health

Reflections and Next Steps

Thank you!

ation is made possible by the generous support of the American people through the United States A
al Development (USAID). The contents are the responsibility of IntraHealth International and do not
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