Global Goods Software

Lecture 10: CSE 490c

Announcements

- Turn in Programming Assignment 1
  - Zip file of code and documentation
- New Homework Available
- Revised Lecture Schedule

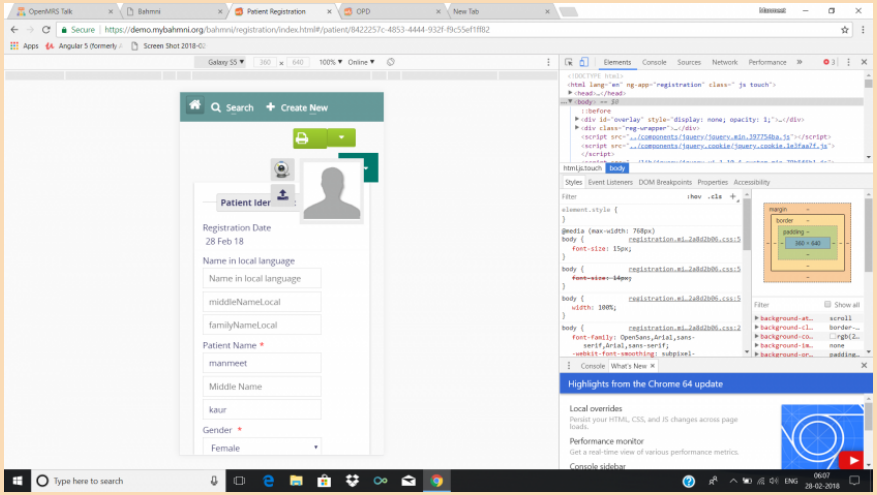
Lecture 10	Wednesday, October 17	Global goods software	Richard Anderson
Lecture 11	Friday, October 19	Software Architecture	Richard Anderson
Lecture 12	Monday, October 22	DHIS2	Fahad Pervaiz
Lecture 13	Wednesday, October 24	Networking Technologies	Matt Johnson
Lecture 14	Friday, October 26	UW-Pesa	Clarice Larson

Problem Domain

- National level systems for supporting public processes
  - Dominated by health systems
  - Examples in public administration, agriculture, public distribution
- Non-commercial systems
- Impact of first system
- Effort to develop replicable solutions
  - Not custom software for every country

System types

- Aggregate Reporting
- Case Reporting
- Surveillance
- Logistics – Ordering
- Logistics – Stock Levels
- Medical Record Systems
- Laboratory Information
- Registries
- Vital Registration
- Workforce management

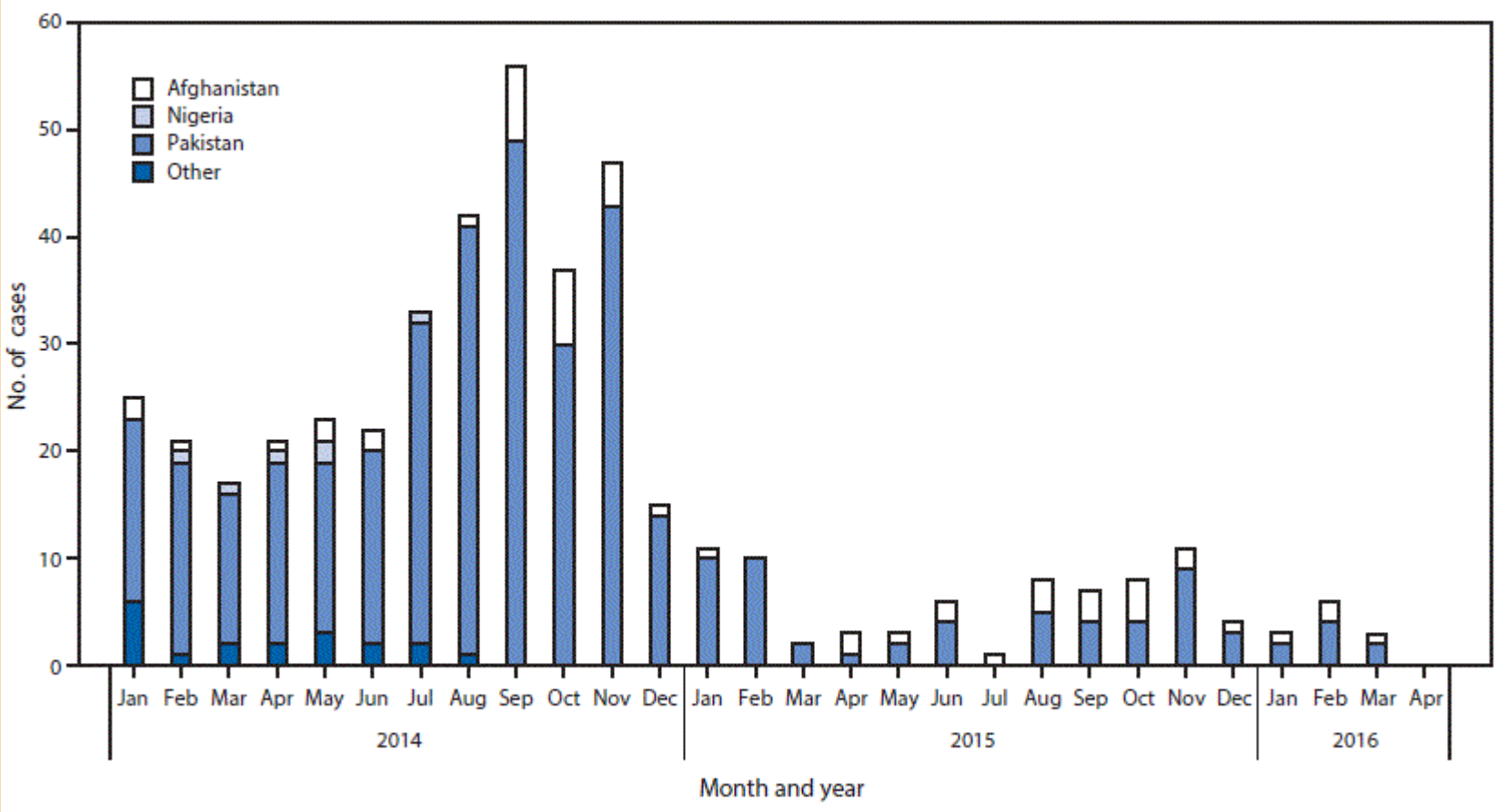


Key questions

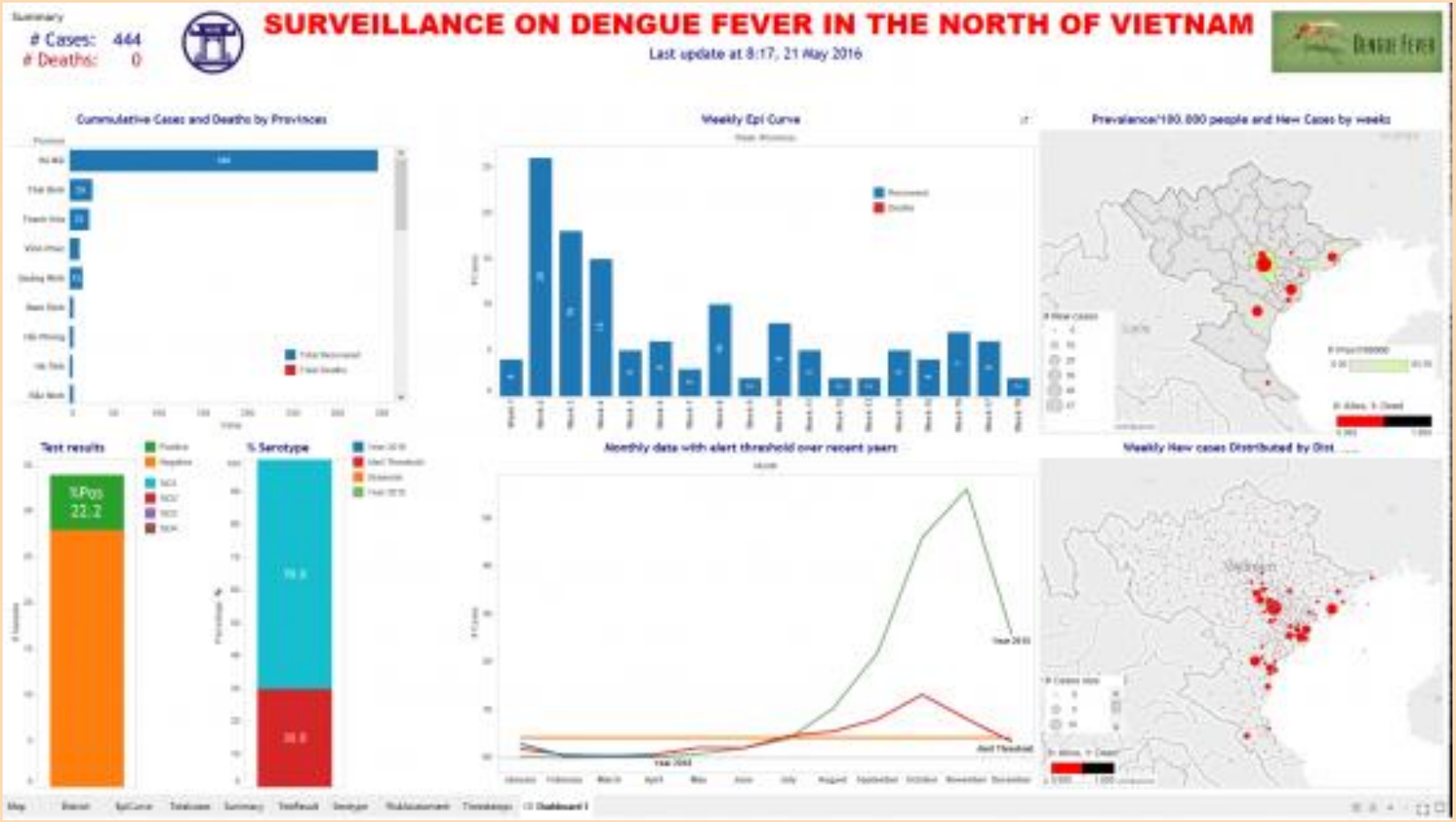
- What are the primary use cases for the system?
- How can the system be of benefit to stakeholders?
- What are the architectural considerations in building the system?

Aggregate Reporting

Case Reporting

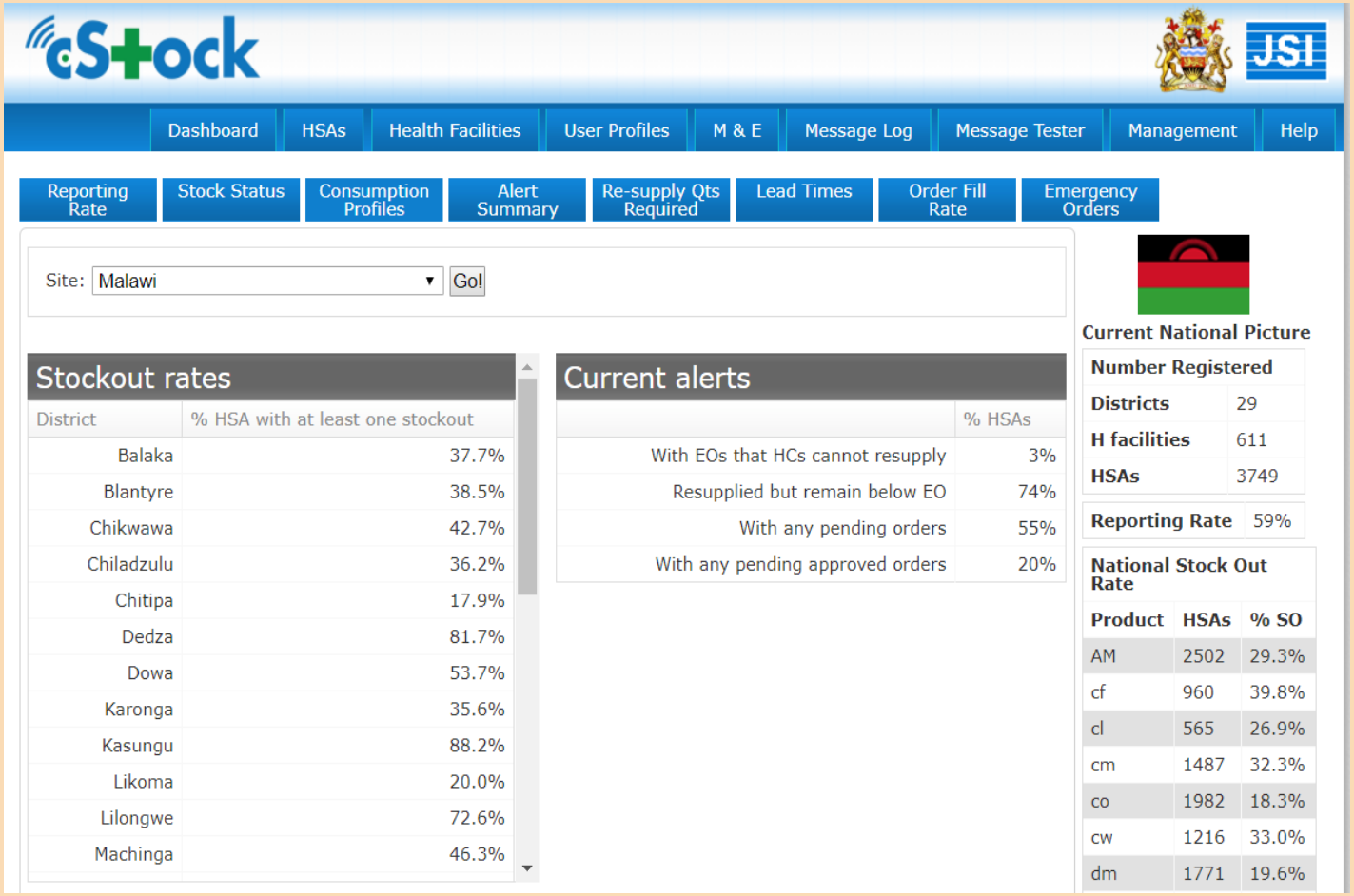


Surveillance



Logistics: Ordering

Logistics: Stock Management



Medical Record Systems

OpenMRS

Currently logged in asTri Hong | Log out | My Profile | Help

Home | Find/Create Patient | Dictionary | Cohort Builder | Reporting | Administration

Joseline Awor Chepkoros OpenMRS Identification Number: **6347MT-1**

59yrs(Apr 7, 1953)

BMI: ? **(Weight: 65.0 kg , Height:)** CD4: 354.0 | Regimen:

Last encounter: **ADULTRETURN @ Ultima Medical Centre, Apr 28, 2006**

Overview | Regimens | Encounters | Demographics | Graphs | Form Entry

Current and Future Regimens

Item ordered	Dose/Units	Frequency	Start date	Scheduled Stop Date	Instructions
(No orders)					
(No orders)					

OTHER REGIMENS

(No orders)

(+) Add/Change Regimen

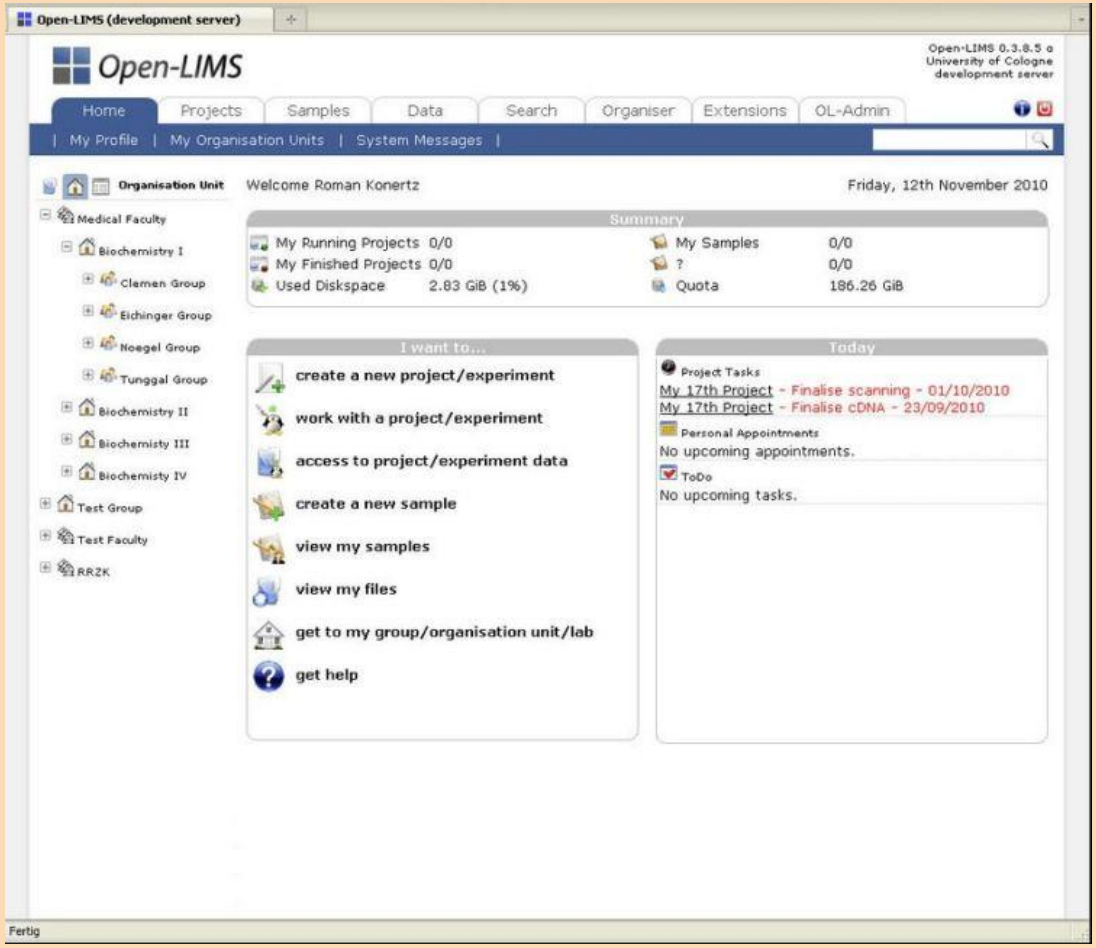
Add a standard drug regimen

3TC + d4T(30) + NVP (Triomune-30)
3TC + d4T(40) + NVP (Triomune-40)
AZT + 3TC + NVP
AZT + 3TC + EFV(600)
d4T(30) + 3TC + EFV(600)
d4T(40) + 3TC + EFV(600)

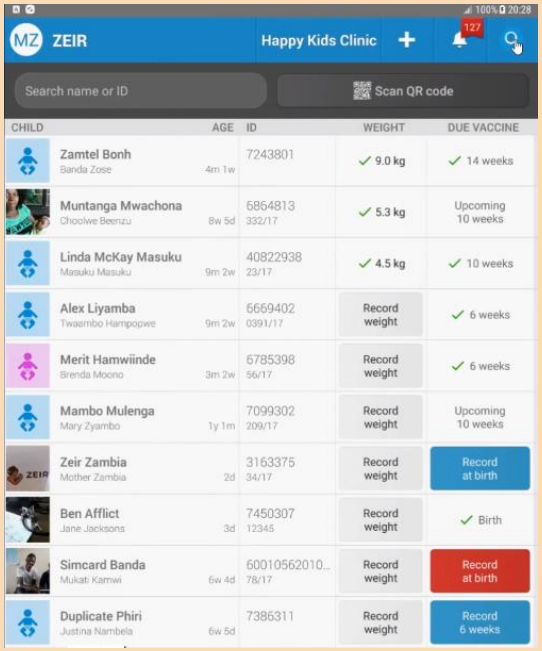
Add your own drug regimen

Drug
Dose
Frequency 1/day x 7 days/week
Start date (mm/dd/yyyy)

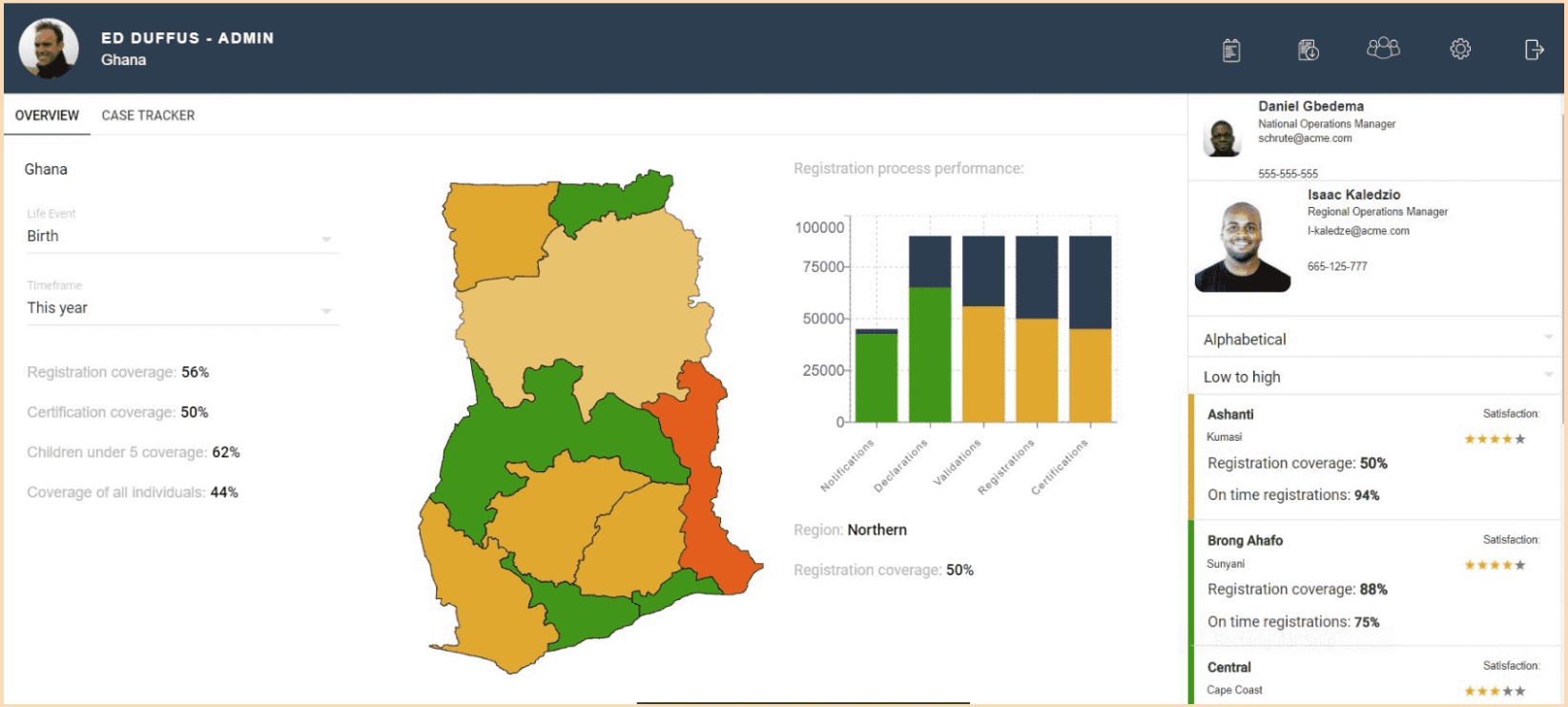
Laboratory Information Systems



Registries


ZEIR
Happy Kids Clinic
Search name or ID
Scan QR code
CHILD
AGE
ID
WEIGHT
DUE VACCINE
Zamtel Bonh
Banda Zose
4m 1w
7243801
9.0 kg
14 weeks
Muntanga Mwachona
Choolwe Beenzu
8w 5d
6864813
332/17
5.3 kg
Upcoming
10 weeks
Linda McKay Masuku
Masuku Masuku
9m 2w
40822938
23/17
4.5 kg
10 weeks
Alex Liyamba
Twaambo Hampopwe
9m 2w
6669402
0391/17
Record weight
6 weeks
Merit Hamwiinde
Brenda Moono
3m 2w
6785398
56/17
Record weight
6 weeks
Mambo Mulenga
Mary Zyambo
1y 1m
7099302
209/17
Record weight
Upcoming
10 weeks
Zeir Zambia
Mother Zambia
2d
3163375
34/17
Record weight
Record at birth
Ben Afflict
Jane Jacksons
3d
7450307
12345
Record weight
Birth
Simcard Banda
Mukati Kamwi
6w 4d
60010562010...
78/17
Record weight
Record at birth
Duplicate Phiri
Justina Nambela
6w 5d
7386311
Record weight
Record 6 weeks

Vital Registration



Workforce Management

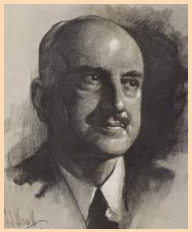
Challenges

- Funding model
- Technologist vs Programmatic needs
- Siloed domains
- Process complexity
- Infrastructure

Structure

- Donors
  - Money and governance
- Platforms
  - Systems deployed at country level
- Products
  - Single use applications

History of Global Goods Software

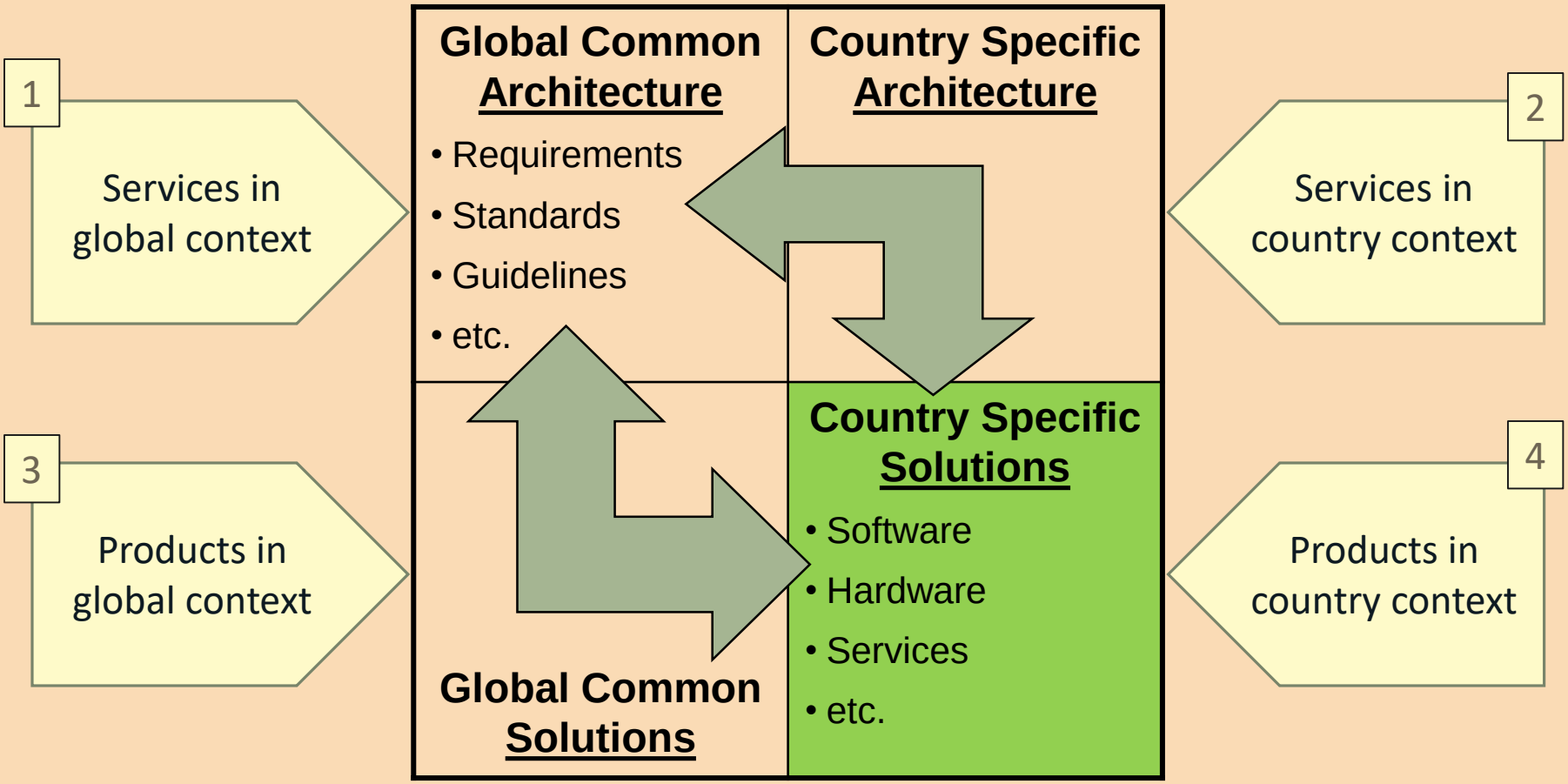


Those who cannot remember the past are condemned to repeat it – George Santayana

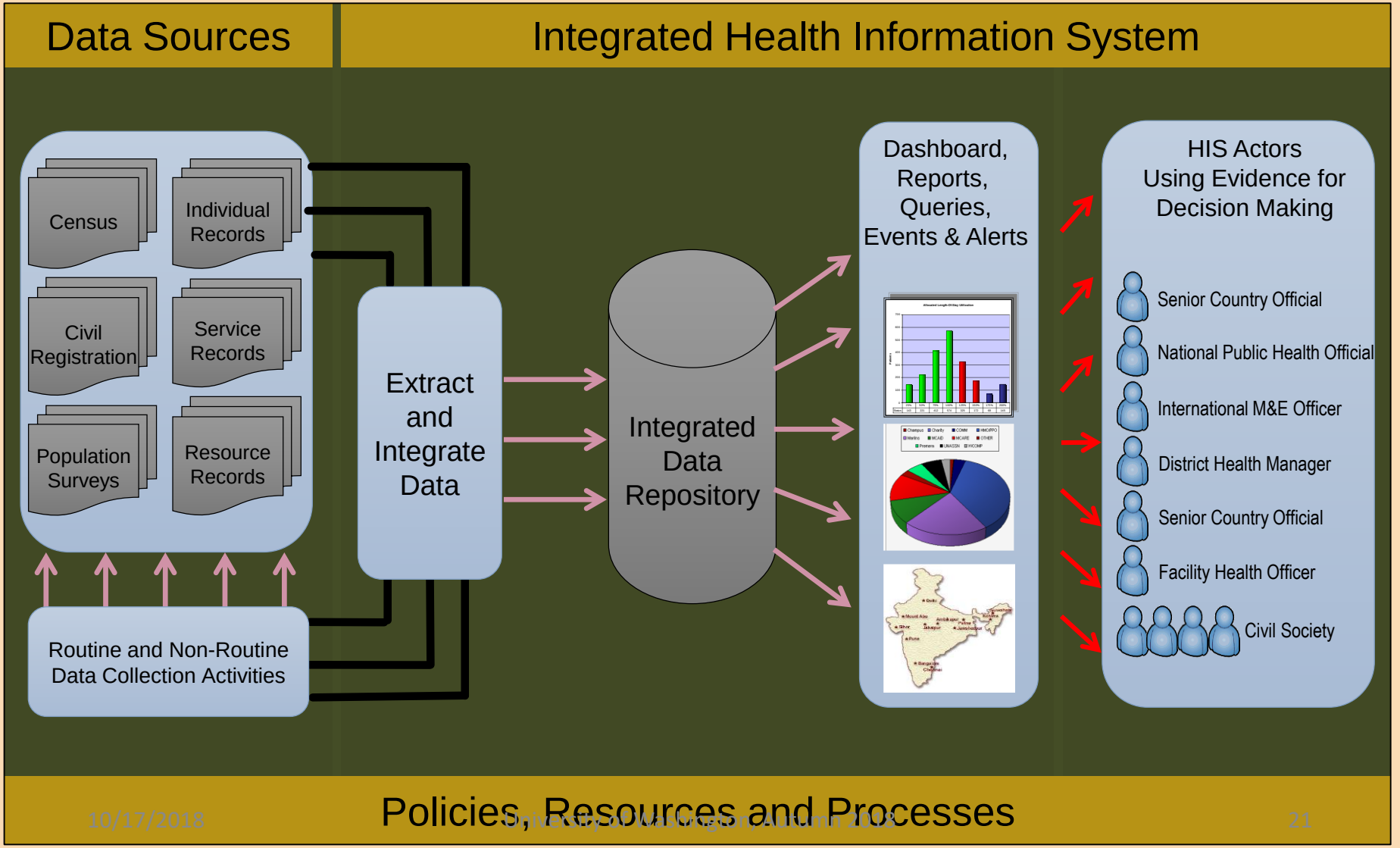
- Microsoft Era: Visual Basic and Microsoft Access
- Server:
- Hosted:

National Software Architecture

2x2 Architecture Grid (Lubinski)



Conceptual HIS Framework



Technical Challenges