



Information Collection Challenges: A Global Health Perspective

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APHL Assists Countries with LIS

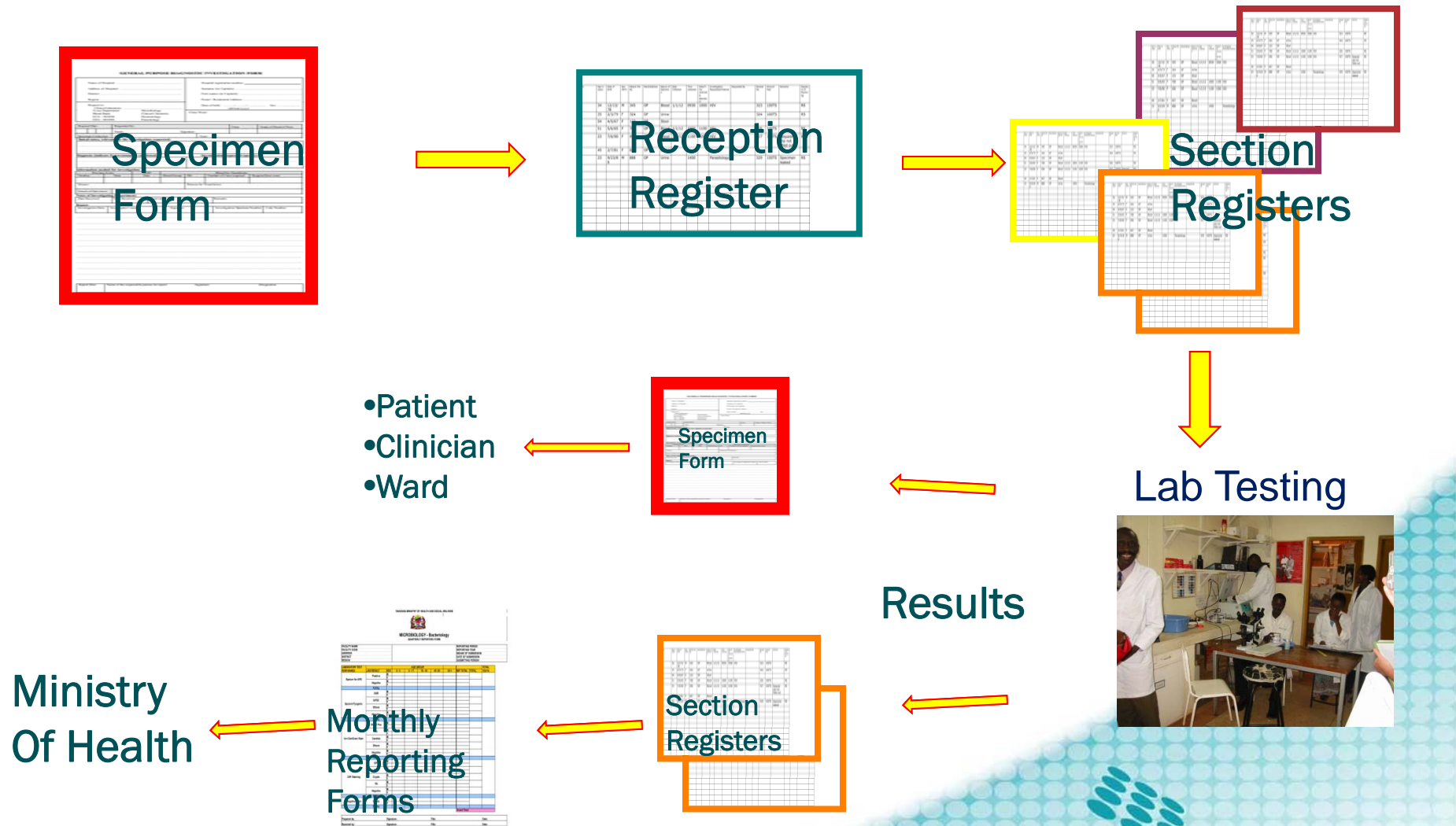
- Both Electronic and Paper Based LIS
- Electronic LIS
 - Performs laboratory assessments and writes RFPs
 - Assists country with vendor selection & implementation
- Standardized paper based system
 - Reviews current paper based forms (specimen form, registers, management forms, etc.,)
 - Assists country with forms standardization
- Good paper system is best before an eLIS
- Good paper system better than a poor eLIS



Laboratory Information

- Ministry of Health uses laboratory information:
 - Determine outbreaks, follow trends, develop prevention strategies
 - Laboratory specific issues
 - Monitor laboratory personnel, supplies and equipment
- Necessary to collect accurate information
 - Demographic, epidemiologic, specimen, etc.
- Important ALL labs collect the SAME information
- Very few labs will have eLIS
- Good standardized paper based system is essential

Typical Information Workflow



Multiple Registers!

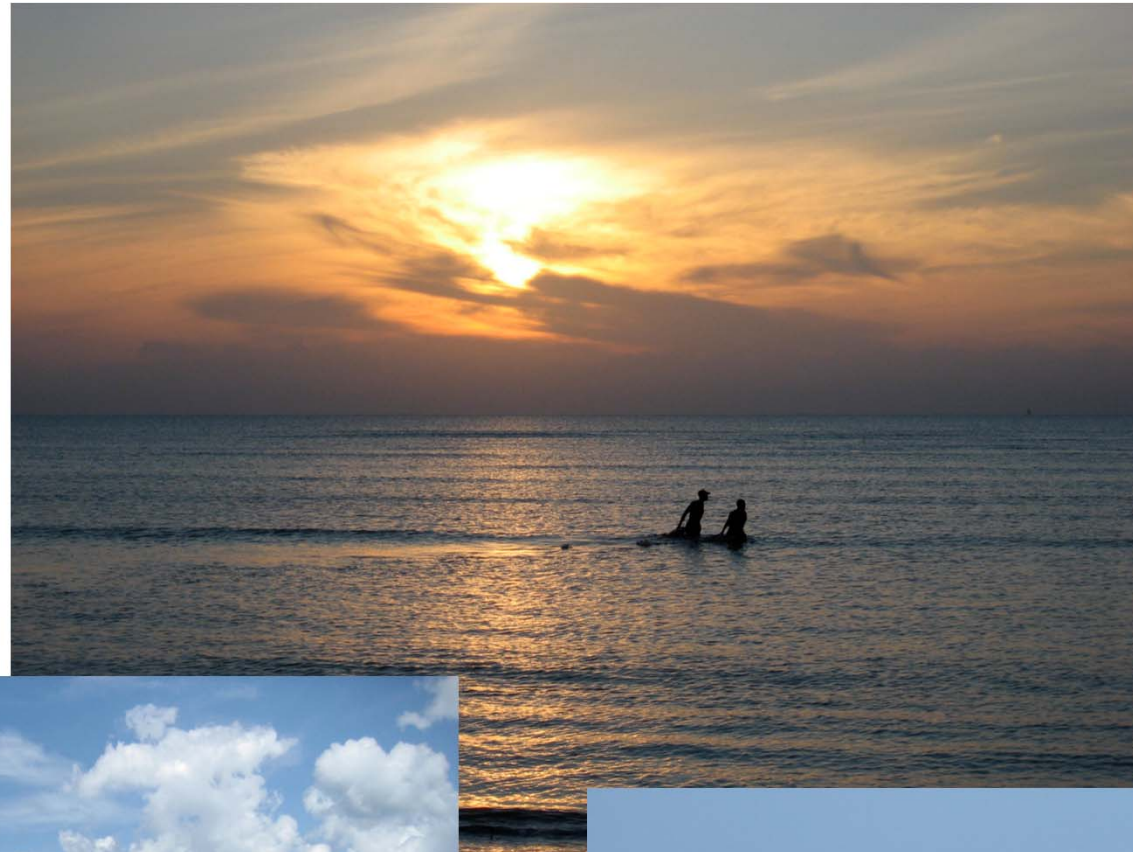


Specimen Reception Form Challenges

One country's experience after standardization

- Specimen form is also used for other diagnostic procedures
- Requires longhand to fill out – no check boxes
- Clinicians are unable to complete form – time constraints
- Some labs design their own forms
 - BUT - Do they collect the same information?
- Solutions
 - Work with MoH and LIS TWG to redesign form

The beauty of the Indian Ocean



Challenges

- Rwanda has an eLIS in their National Reference Lab
 - Labs used seven different specimen request forms
 - Not all collect the same information
 - Difficult for data entry folks to find information on the forms to enter – screens not the same as forms
- Solution
 - Forms harmonized into one form
 - Standardizes information collected
 - Faster data entry

Register Challenges

- Multiple registers = transcription errors
- Most hand written – different for each lab
- May not collect standardized information
- Results not written into registers
 - No results in registers = No information for summary reports
- Solutions
 - Registers not needed with eLIS
 - For labs with no eLIS - standardize and preprint
 - Training and better lab management

Registers - Hand wirtten, falling apart No Standard Methods for Data Collection,

No	Name	Age	Sex	Test	Result	Ref. No.	Cost	Ref.
1	John Doe	35	M	PCR	Pos	123456	1000	100
2	Jane Smith	28	F	PCR	Neg	234567	800	200
3	Michael Brown	42	M	PCR	Pos	345678	1200	300
4	Sarah White	30	F	PCR	Neg	456789	900	150
5	David Black	25	M	PCR	Pos	567890	1100	250
6	Emily Green	38	F	PCR	Neg	678901	850	180
7	James Hill	45	M	PCR	Pos	789012	1300	350
8	Alice King	22	F	PCR	Neg	890123	750	120
9	Robert Lee	50	M	PCR	Pos	901234	1400	400
10	Michelle Park	33	F	PCR	Neg	012345	950	200
11	Christopher Scott	40	M	PCR	Pos	123456	1250	320
12	Stephanie Taylor	27	F	PCR	Neg	234567	820	170
13	Benjamin Adams	48	M	PCR	Pos	345678	1350	380
14	Olivia Baker	31	F	PCR	Neg	456789	920	190
15	Lucas Clark	29	M	PCR	Pos	567890	1150	280
16	Isabella Evans	24	F	PCR	Neg	678901	780	140
17	George Foster	55	M	PCR	Pos	789012	1500	450
18	Chloe Grant	36	F	PCR	Neg	890123	1000	250
19	Henry Harris	41	M	PCR	Pos	901234	1300	350
20	Amy Young	26	F	PCR	Neg	012345	800	160
21	Isaac King	49	M	PCR	Pos	123456	1450	420
22	Madeline Lee	34	F	PCR	Neg	234567	980	220
23	Samuel White	23	M	PCR	Pos	345678	1050	270
24	Grace Black	43	F	PCR	Neg	456789	1100	290
25	Leo Green	37	M	PCR	Pos	567890	1200	330
26	Leah Hill	21	F	PCR	Neg	678901	720	130
27	Robert King	52	M	PCR	Pos	789012	1550	480
28	Victoria Lee	32	F	PCR	Neg	890123	1050	260
29	William White	44	M	PCR	Pos	901234	1350	370
30	Zoe Black	28	F	PCR	Neg	012345	850	180



Challenges

- Monthly/Quarterly reports to MOH
 - Sometimes reports are not completed
 - Not forwarded from District or Regional offices
 - May not be sent to MOH even if completed
- One country has a variety of eLIS in different labs
 - Each lab uses a different specimen receipt form
 - Potential for different data collected by each lab
 - No standardized data collected
 - Solution - work on standardization

Data Sometimes Piles Up!!





Self contained BSL3 Lab



Solutions

- There are many challenges.....
- But there are solutions.....
 - eLIS will be used in some labs
 - Standardized paper based tools for all labs
 - Training on importance of accurate/complete information gathering
 - Laboratory management
 - Accreditation will help drive improvements
 - LIS elements in accreditation criteria
 - Electronic and paper based LIS

A Few Friends!!



Asante Sana
(Thank you very much)



Disclosure

- *The Association of Public Health Laboratories adheres to established standards regarding industry support of continuing education for healthcare professionals. The following disclosures of personal financial relationships with commercial interests within the last 12 months as relative to this presentation have been made by the speaker(s): Bob Sokolow – Nothing to Disclose*