Medical Teleparasitology System

Diagnostic Parasitology using ICT

Patrick Sylim MD

National Telehealth Center

Outline

- Overview of eHealth

  - ehealth, eHealth in the Philippines

  - Telehealth as a subset of eHealth

  - The Philippine Health Information Exchange (PHIE)

  - Ethics in eHealth

- Overview of the MTP and MTP System

- Looking forward

Overview of eHealth

- What is eHealth?

  - ehealth is the **practice of health care** supported by electronic media, either and both hardware and software, in the context of the need for increased quality and efficiency

  - **ehealth efforts are moving forward all over the Philippines,** albeit in a vertical manner

Overview of eHealth

- What is Telehealth?

  - It is health care **over a distance**, subset of eHealth

  - **Health professional to health professional**, health professional to patient

  - The archipelagic nature of the Philippines and its health care system **has led to efforts in implementing Telehealth**

Overview of eHealth

- What is Telehealth?

  - **National Telehealth Service Program (NTSP),** a collaboration of NTHC and DOH; it connects physicians in the field with more central specialists

    - Doctors to the Barrios program

    - Regionalization of specialist pool

  - **Medical Teleparasitology** is a form of telehealth

Overview of eHealth

- What is the Philippine Health Information Exchange (PHIE)?

  - It is an effort to unify and harmonize the different eHealth efforts in the Philippines

  - Local health systems connecting to the exchange to contribute to and benefit from the shared information

  - MTP has this potential

Overview of eHealth

- What are the ethical considerations?

  - Shared health information is always vulnerable to breach in **PRIVACY** and **CONFIDENTIALITY**

    - Secure information media

    - De-identify patient (removing all identifiable traits)

    - Informed consent - nature of procedure, pros and cons, risks, identification of people involved, patient's rights

Overview of MTP

- What is the MTP?

  - The MTP is the **network of health care professionals in diagnostic parasitology sharing information remotely** using an online cloud application

  - Rules and Ethics in shared health information apply to any and all activities of the MTP
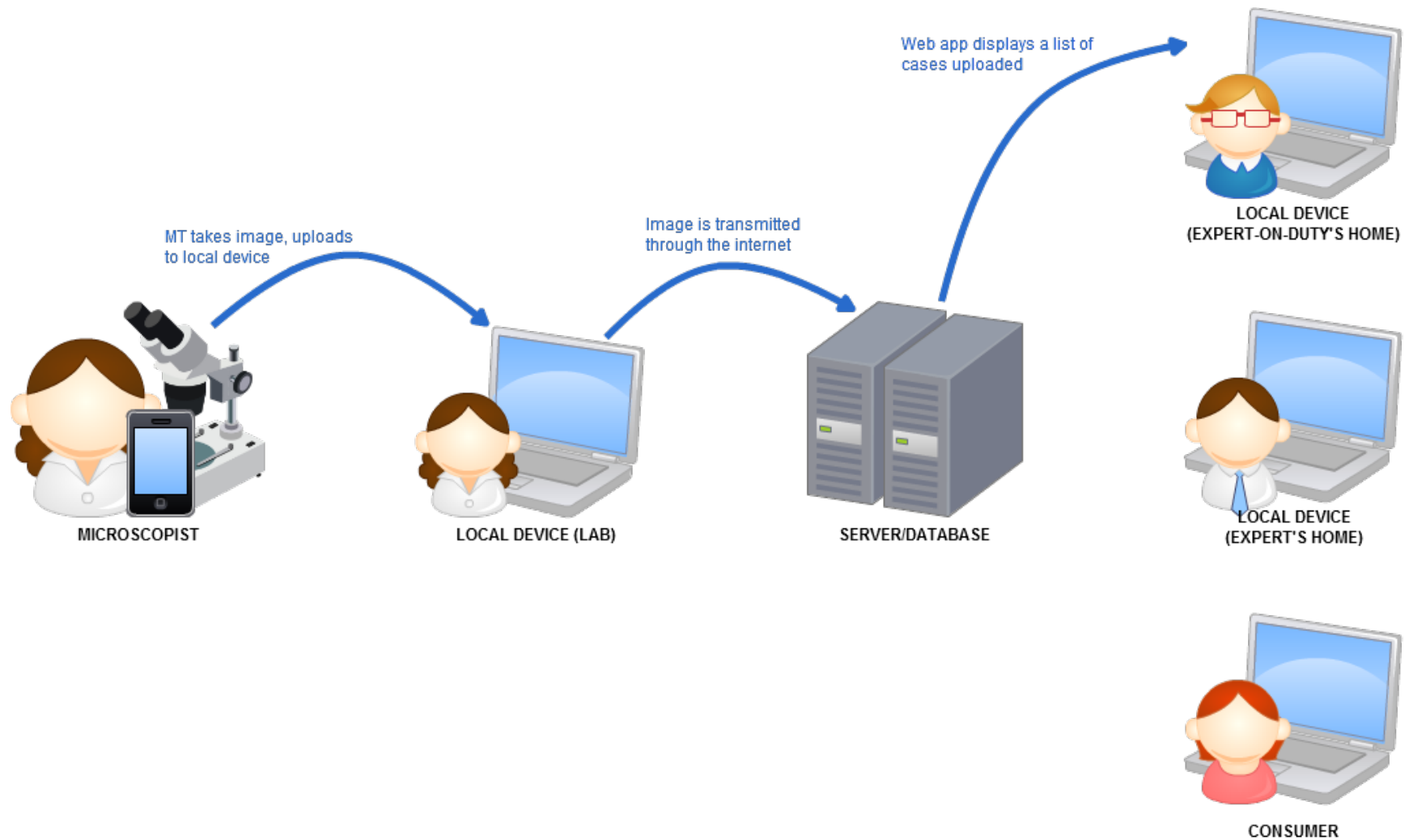
Overview of MTP

- ## What is the MTP System?

  - The online application (dubbed **MTP System v1.0**) has the capability to facilitate the following:

    - Conversations between medical technologists and parasitologists (and sharing of information)

    - Image submissions to enhance information sharing

    - Monthly reporting of case aggregates
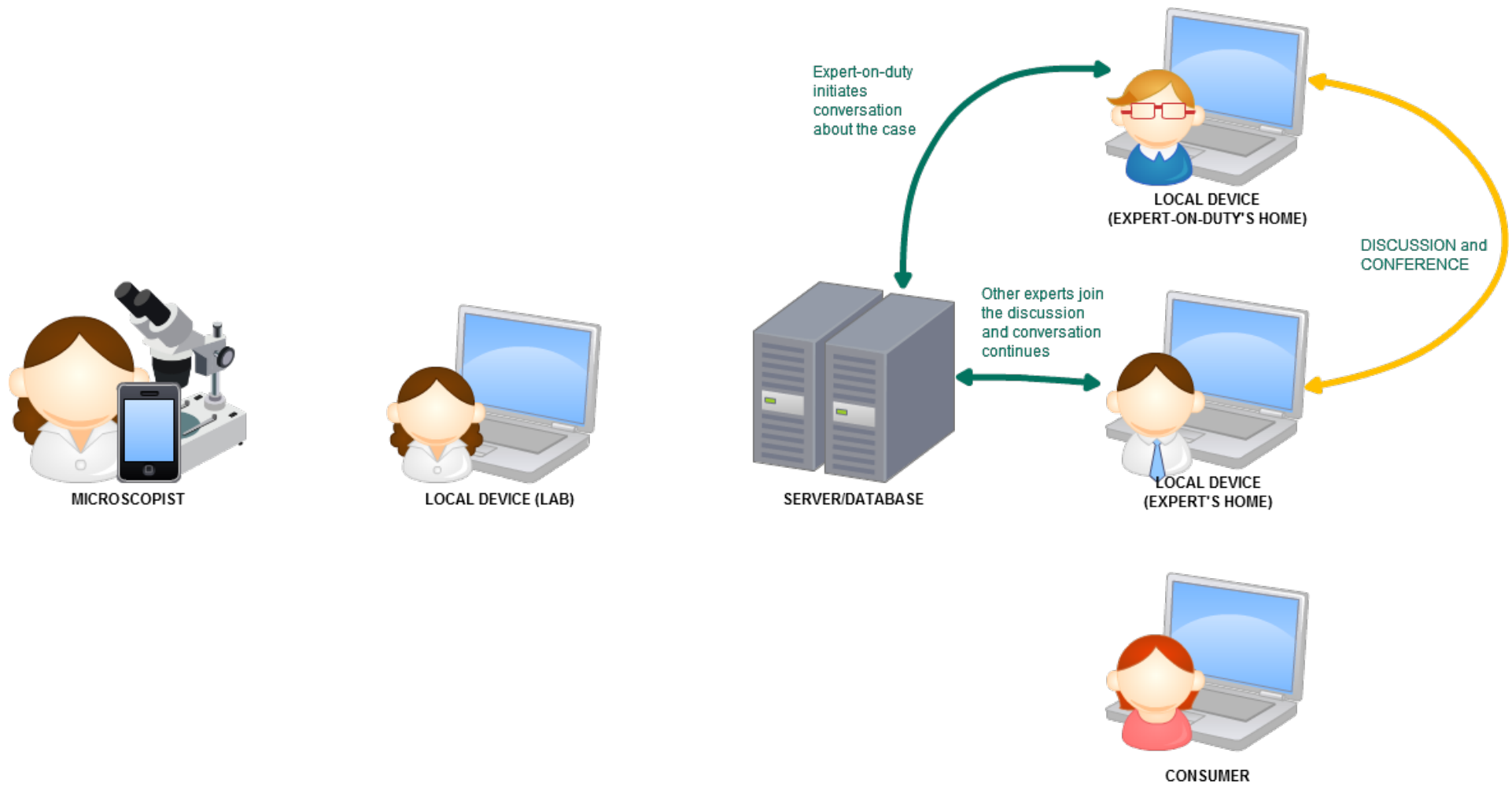
  - Can be defined as "cloud-based"

Overview of MTP

- What do I need before I can use the MTP System?

  - Image capture device, media device capable of connecting to the internet, [connection between the two], internet browser

  - Capacity to use the system

  - An account registered in the system

  - Information for sharing (case/s, images, other info)

SUBMISSION

MT takes image, uploads to local device

Image is transmitted through the internet

Web app displays a list of cases uploaded

MICROSCOPIST

LOCAL DEVICE (LAB)

SERVER/DATABASE

LOCAL DEVICE (EXPERT-ON-DUTY'S HOME)

LOCAL DEVICE (EXPERT'S HOME)

CONSUMER

CONSENSUS

Expert-on-duty initiates conversation about the case

LOCAL DEVICE (EXPERT-ON-DUTY'S HOME)

DISCUSSION and CONFERENCE

Other experts join the discussion and conversation continues

MICROSCOPIST

LOCAL DEVICE (LAB)

SERVER/DATABASE

LOCAL DEVICE (EXPERT'S HOME)

CONSUMER

RESPONSE

Concensus reached; expert-on-duty replies with the final lab diagnosis

Submission not accepted; reason stated and resubmission recommended

Final lab diagnosis listed on web application

Returned cases listed under a "Returned" folder

MICROSCOPIST

LOCAL DEVICE (LAB)

SERVER/DATABASE
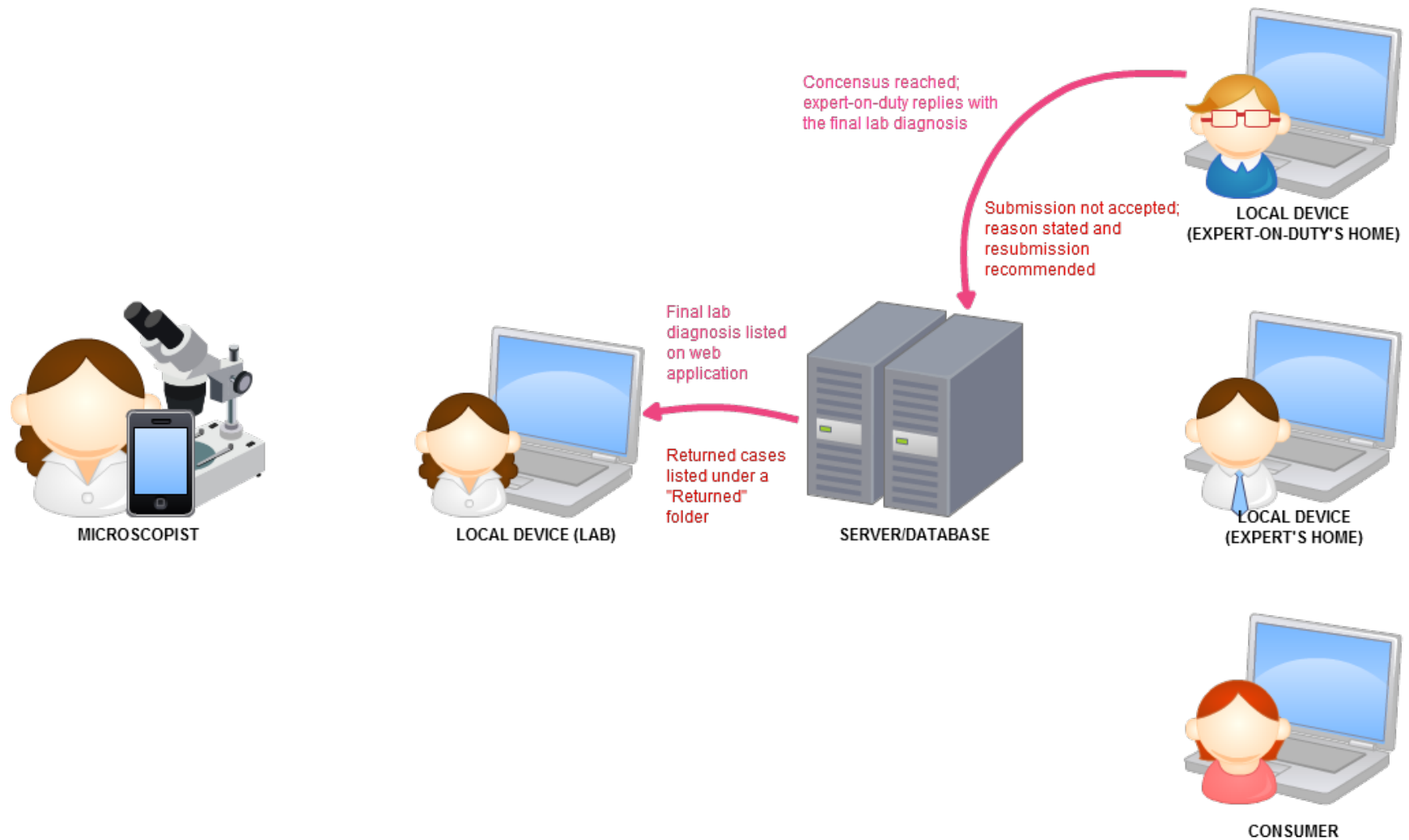
LOCAL DEVICE (EXPERT-ON-DUTY'S HOME)

LOCAL DEVICE (EXPERT'S HOME)

CONSUMER

Looking forward

- What can we look forward to for the MTPS?

    - Public information portal

    - Image-based reference library

    - Online training modules

    - MT-MT information sharing

    - Bigger network of professionals