

Incident Management System (IMS) in the public health response: From SARS to pandemic H1N1

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Learning from the Past

STILL WORRIED
ABOUT
TERRORISTS?

NO...
CANADIANS





SARS Chronology

- Spring 2003
 - 44 deaths: 3 were Health Care Workers (HCW)
 - 375 probable & suspect cases (50% HCW's)
- Ontario Legislation in place at the time:
 - *Health Protection and Promotion Act*, (1983)
 - Based on *Public Health Act*, 1884
 - *Emergency Management Act*, revised 2002
 - Activated entire EM mechanism of Ontario

H1N1 Chronology

- April 2009
 - Mexico asked Canada to analyse a novel virus
 - Had been percolating in Mexico for some time...
 - Quickly spread to California and Texas
- June 2009
 - WHO declared Pandemic H1N1 Influenza

SARS Challenges

- No test
- No diagnostic criteria
- No idea of clinical course
- No treatment
- No knowledge of disease transmission
- No idea of duration of infectivity
- **No common emergency management structure**

H1N1 Challenges

- Initially presented similar to SARS
- Generated all the same **fears** of SARS !
 - Permeated the healthcare system
 - Permeated the healthcare response

Best Evidence for SARS

- Expert opinion
- Anecdotal lessons learned
- Extrapolation to other venues

Best Evidence for H1N1

- Rapid molecular analysis at Public Health Labs
 - Polymerase Chain Reaction (PCR) testing identified the organism as Influenza
 - Novel strain of H1N1 (swine) flu
 - Obvious pandemic potential

But, we had an ace up our sleeve...

Best Evidence for H1N1

Pandemic Planning !

- 15 years of pandemic influenza planning
 - Ontario Health Plan for an Influenza Pandemic (OHP/IP)
 - Many plans developed and shared at other venues
 - Municipal, regional, federal, international

SARS Science Decision Making

- Review by committee
- Sent “upstairs” to operations
- Edits based on reality checks
- Approval by PEOC



SARS Response Challenges

- Communication, communication, communication
- Lack of clear authority: Who's in charge?
- Disconnect between province and public health units
- Difficulties in accessing data
- Lack of a clear mandate
- Psycho-social impact on Health Care Workers

The SARS Legacy



She is one of thousands of health care professionals who are on the front line in our war against SARS. They are dealing with something that we have never faced before and they have been doing it twenty-four hours a day, seven days a week for over a month. It's exhausting. Their families worry about them. They worry about you and the safety of us all.

We thank them.

While SARS has put Ontario on the world stage, our hospital and health care workers are proving us to be world class.

These are Ontario's heroes.

Emergency Management Unit



- Created in 2003 as an outcome of SARS
- Fulfills current MOHLTC obligations under *Emergency Management and Civil Protection Act*
 - Responsibility to prepare for and respond to “human health, disease, and epidemics, and health services during an emergency”
- Maintains state of readiness to respond to emergencies (MOHLTC)
 - Supports health sector during emergencies where local capacities have been or have the potential to be exceeded

SARS Commissions x 3

1. Naylor: PHAC
2. Walker: EMU & OAHPP
3. Campbell: Occupational Health & Safety

All recommended:

Infection Prevention & Control
Command & Control systems

Ontario Agency for Health Protection & Promotion

- Recommended by Walker Report
 - began operations in 2008
- Provides support to Public Health in Ontario:
 - Infectious Diseases, Surveillance & Epidemiology, Environmental, Chronic Disease Prevention
- Support in emergencies and exigent events
 - as requested by CMOH

Implementing IMS in Public Health

What is IMS?

- A way of creating (some!) order out of chaos
- A framework
- A tool

Where Did IMS Come From?



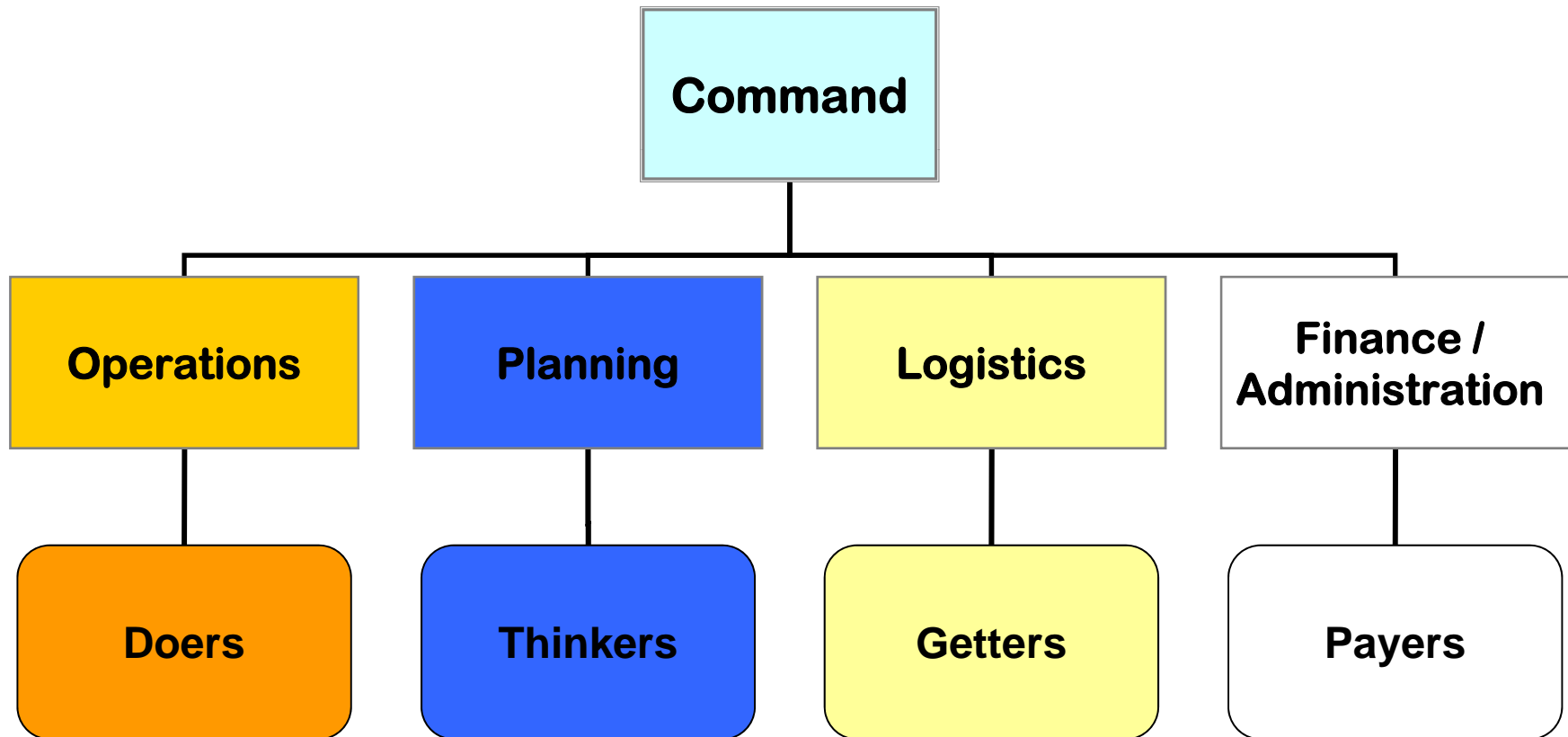
Why Should We Care ?

- In day-to-day operations, health care organizations often very insular
 - “Our” procedures don’t have to be same as “their” procedures
 - Applies within as well as between organizations
- In a health emergency we cannot operate in a vacuum!
 - Need way to communicate / coordinate efforts

IMS - Components

1. Unified command structure
2. Common terminology
3. Modular organization
4. Integrated communication
5. Consolidated action plans
6. Job Action Sheets
7. Manageable & sensible span of control
8. Designated facilities
9. Comprehensive resource management

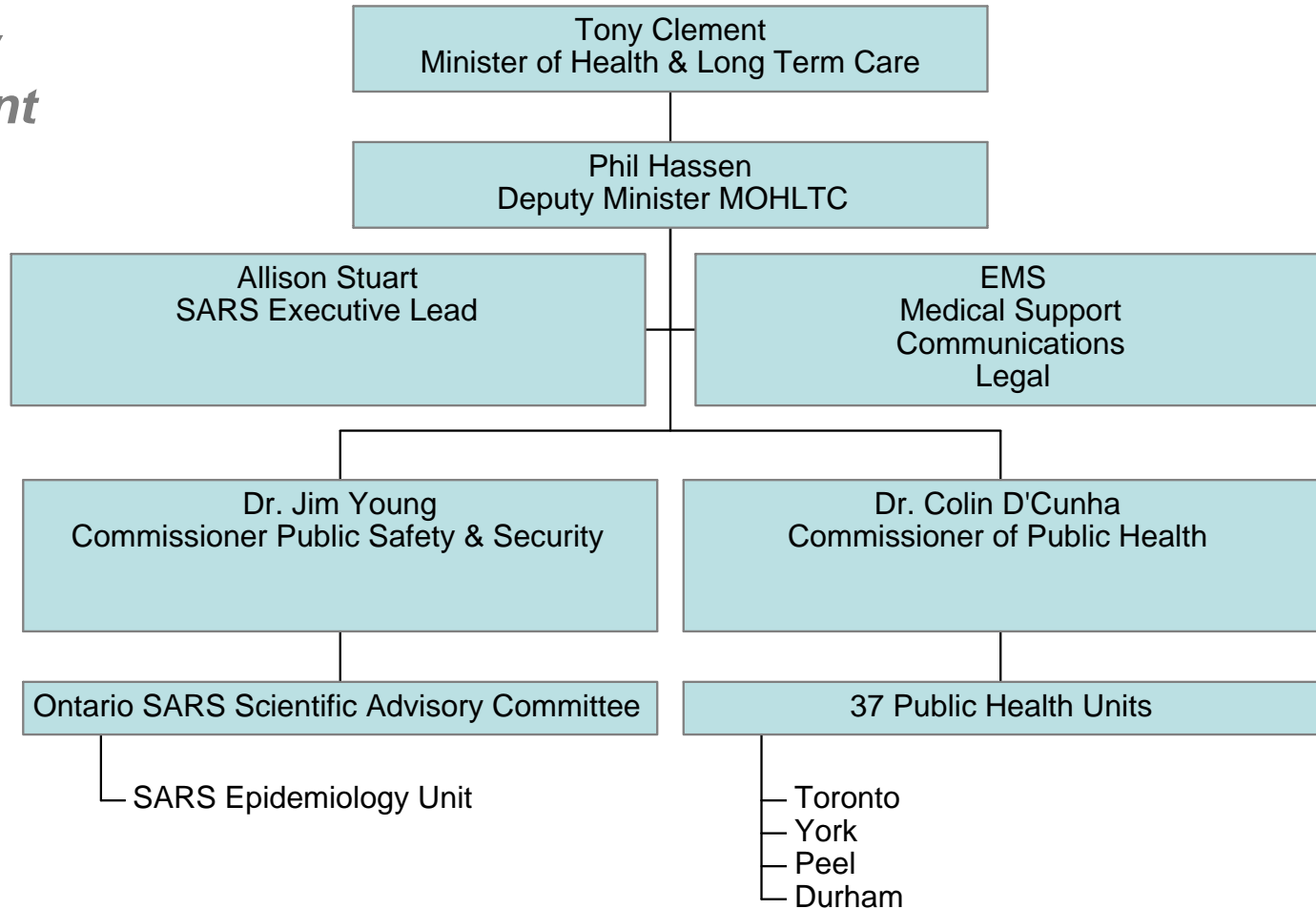
IMS Structure



SARS Reporting Structure

*Emergency
Management
Act, 2002*

**Who
is
in
charge?**



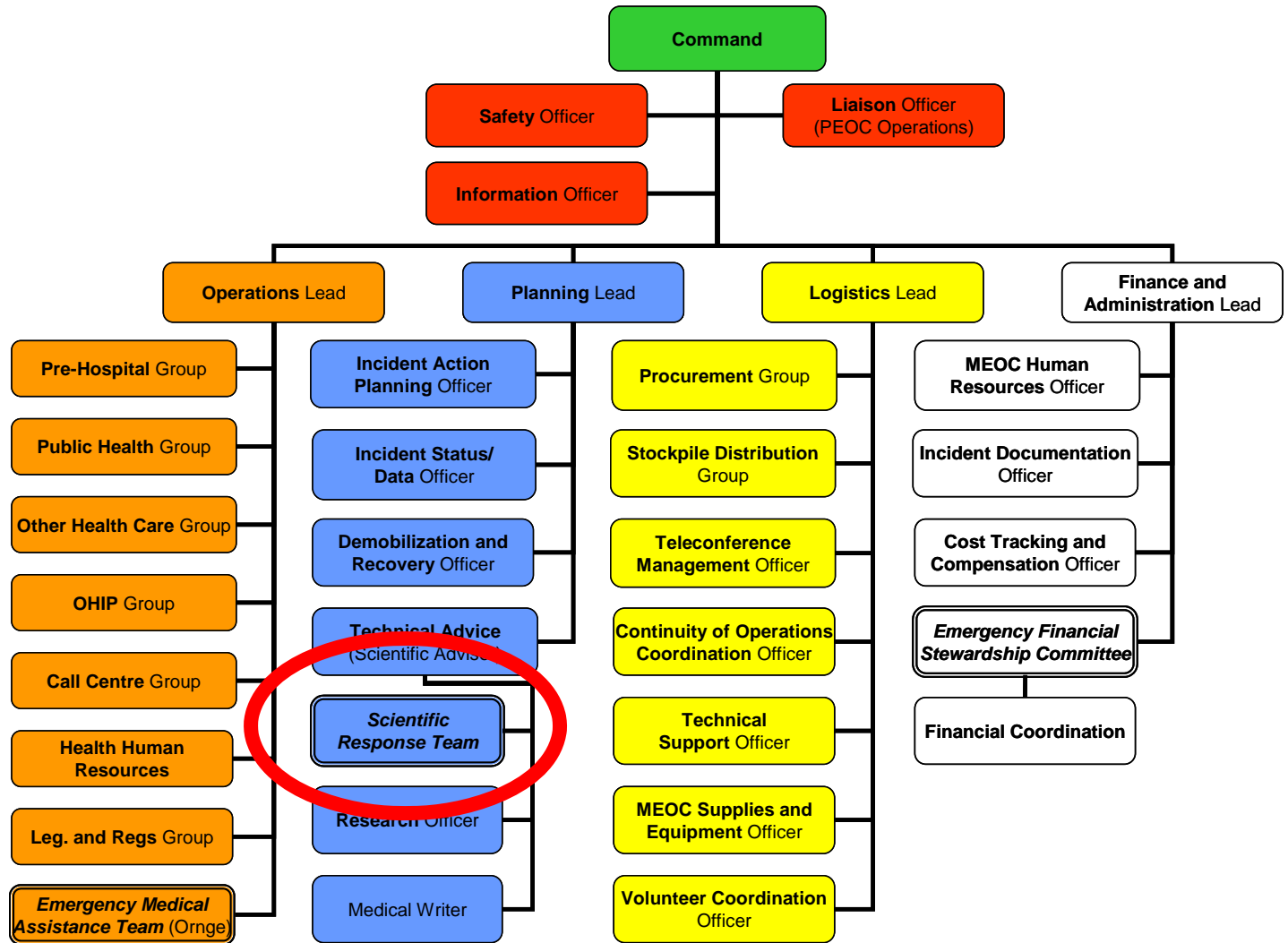


Incident Commander

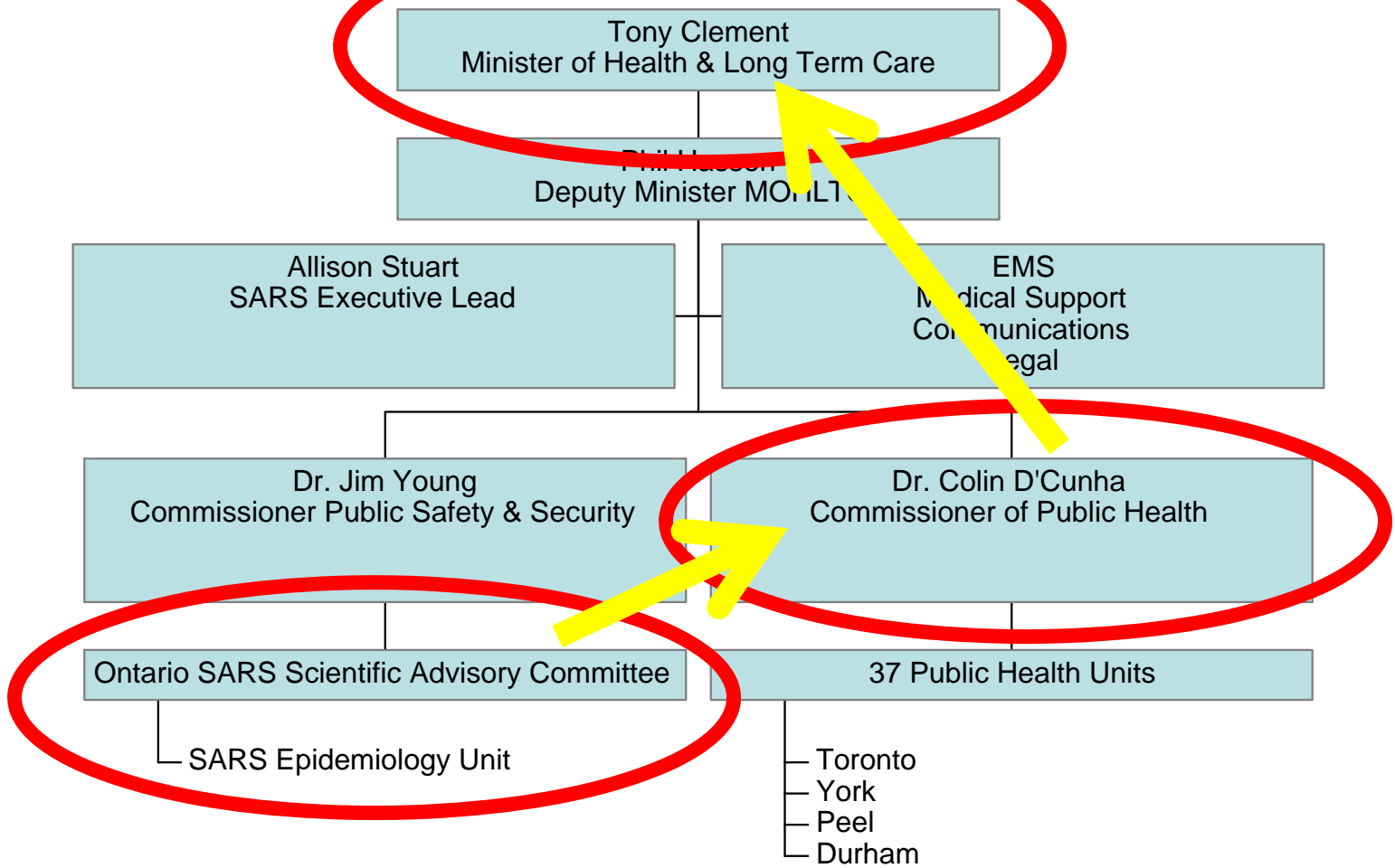


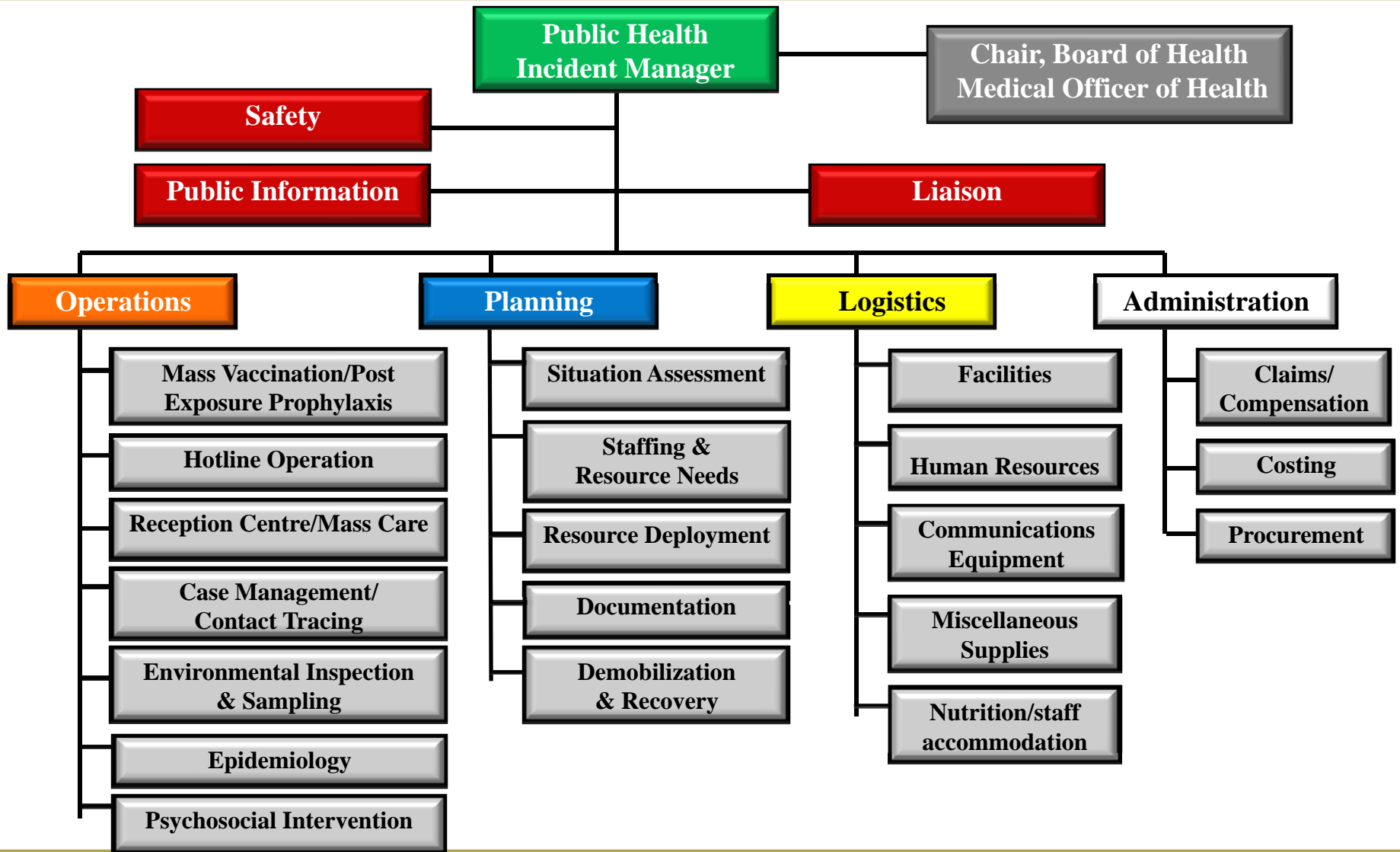
Incident Command

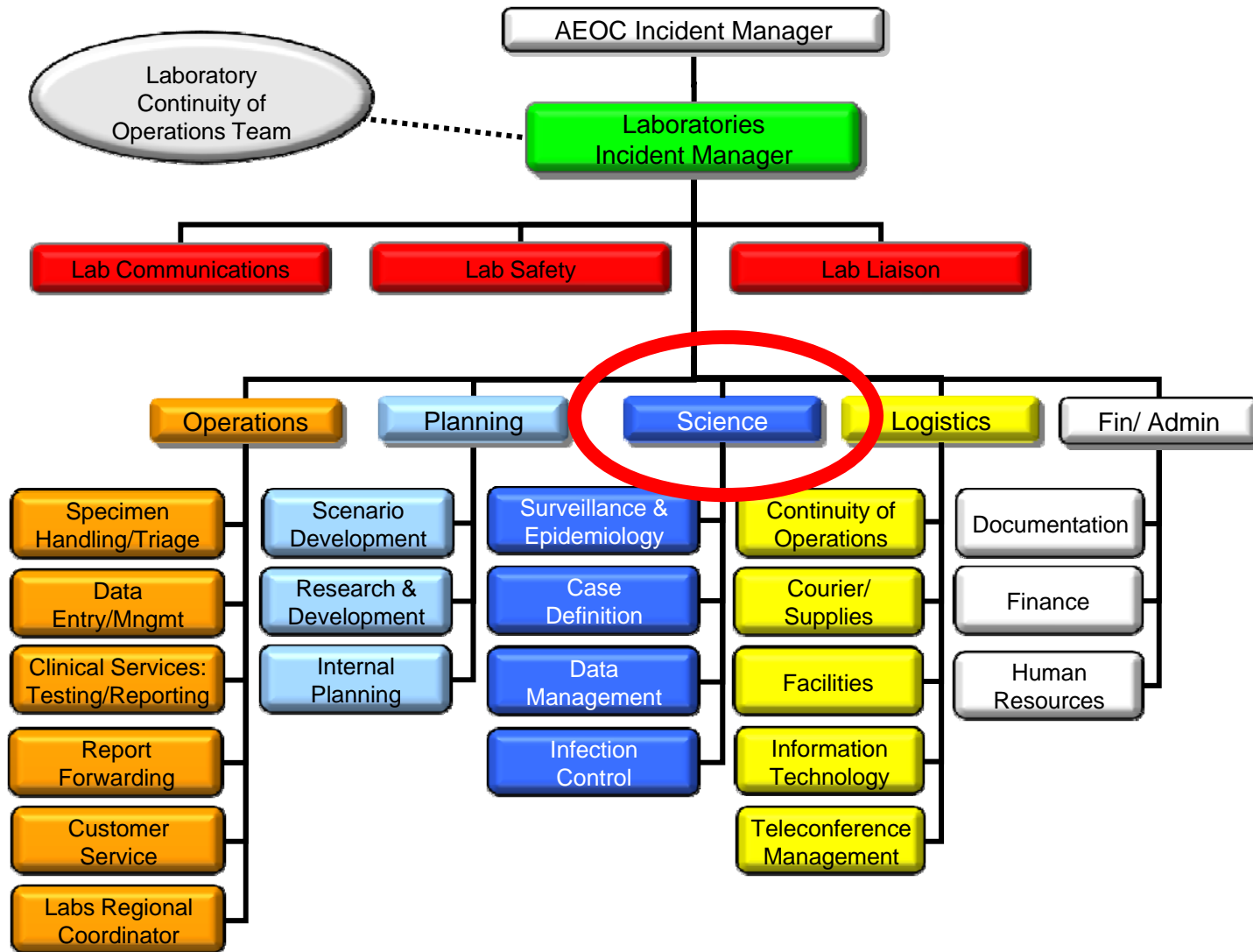
- Directs activities of personnel in the
Emergency Operations Centre (EOC)
- Most senior trained responder
 - In Public Health, may start as on-call Medical Officer of Health, Nurse, Manager or Public Health Inspector
- As response progresses:
 - IC position may be “handed off” to more senior person

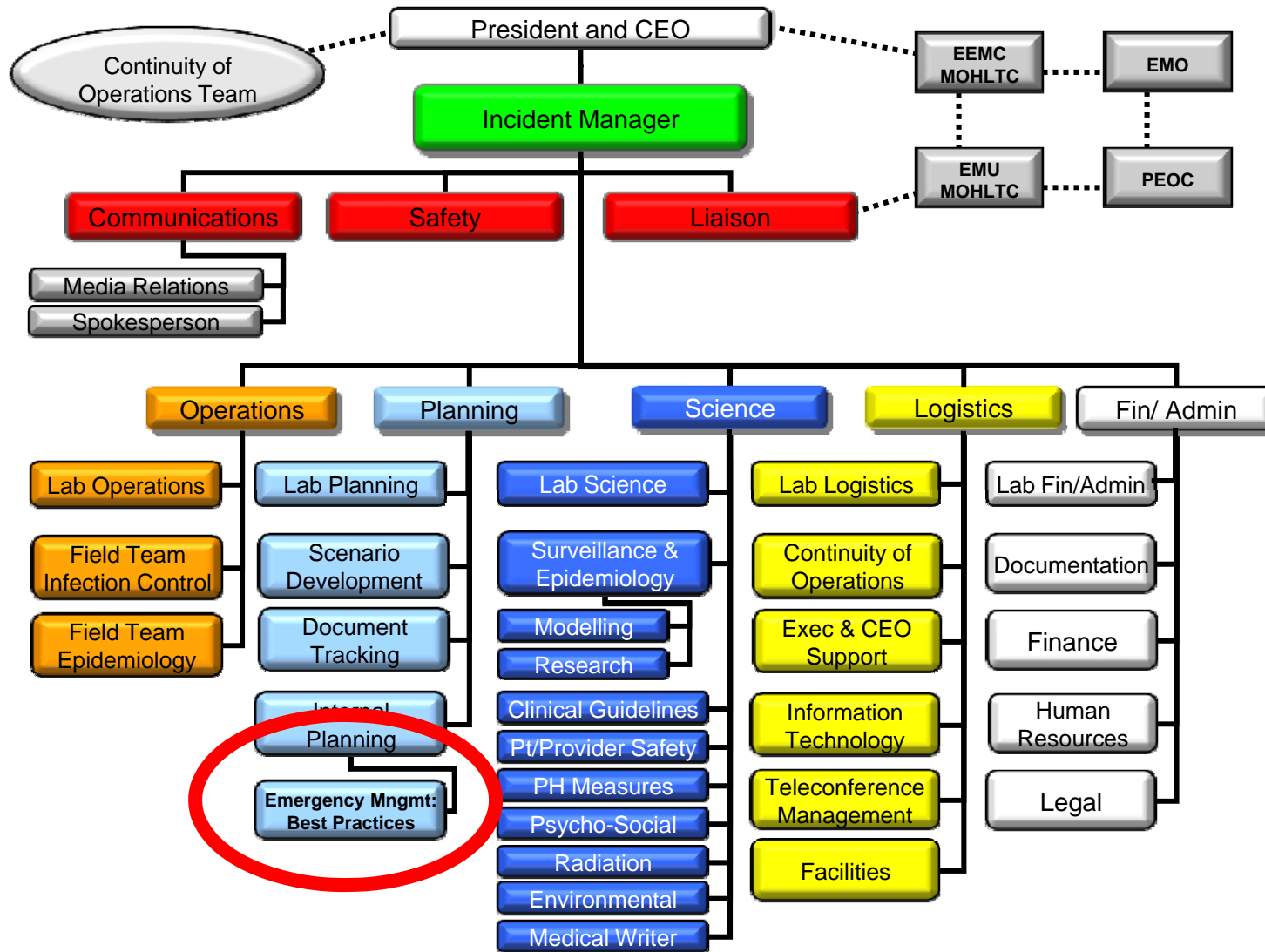


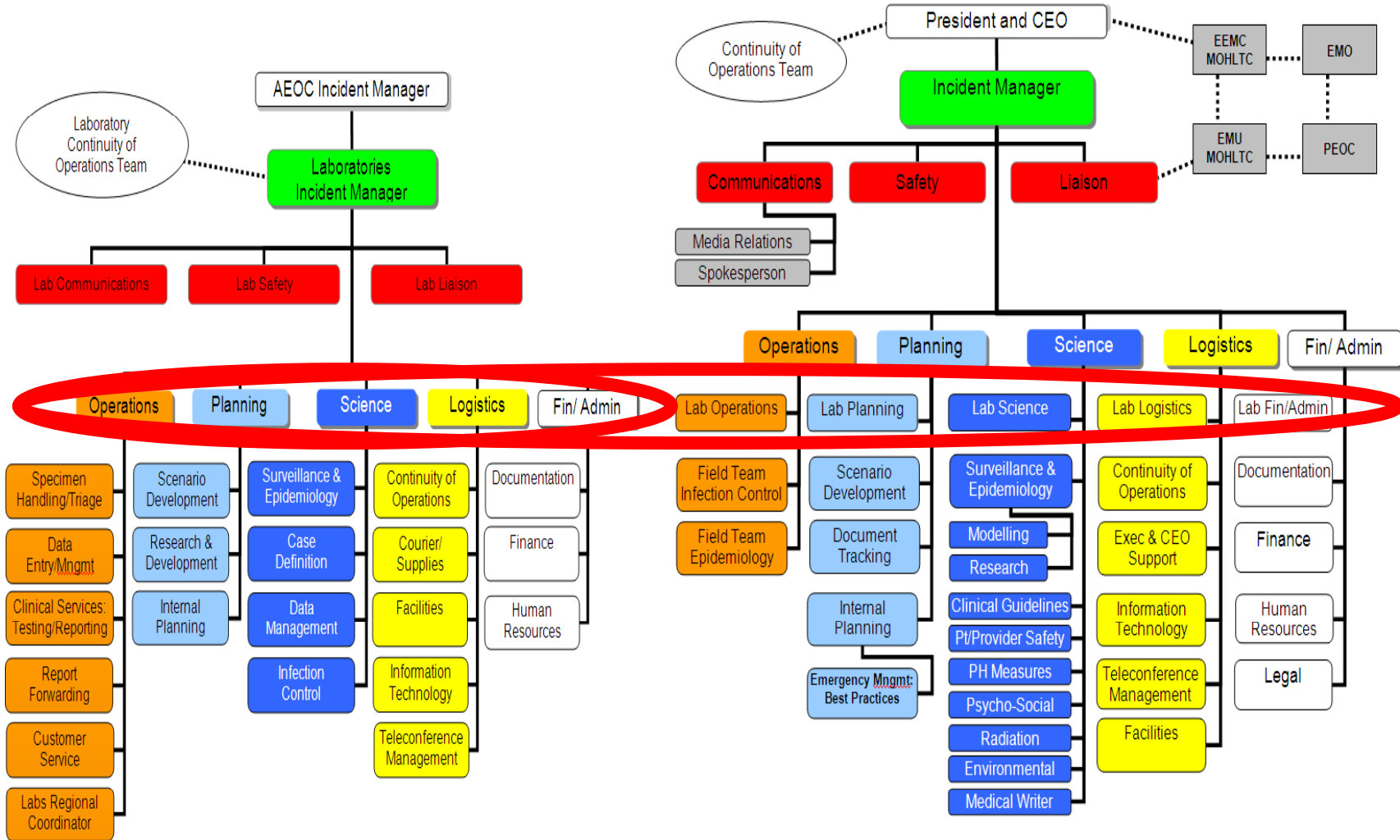
SARS Reporting Structure (reprise)







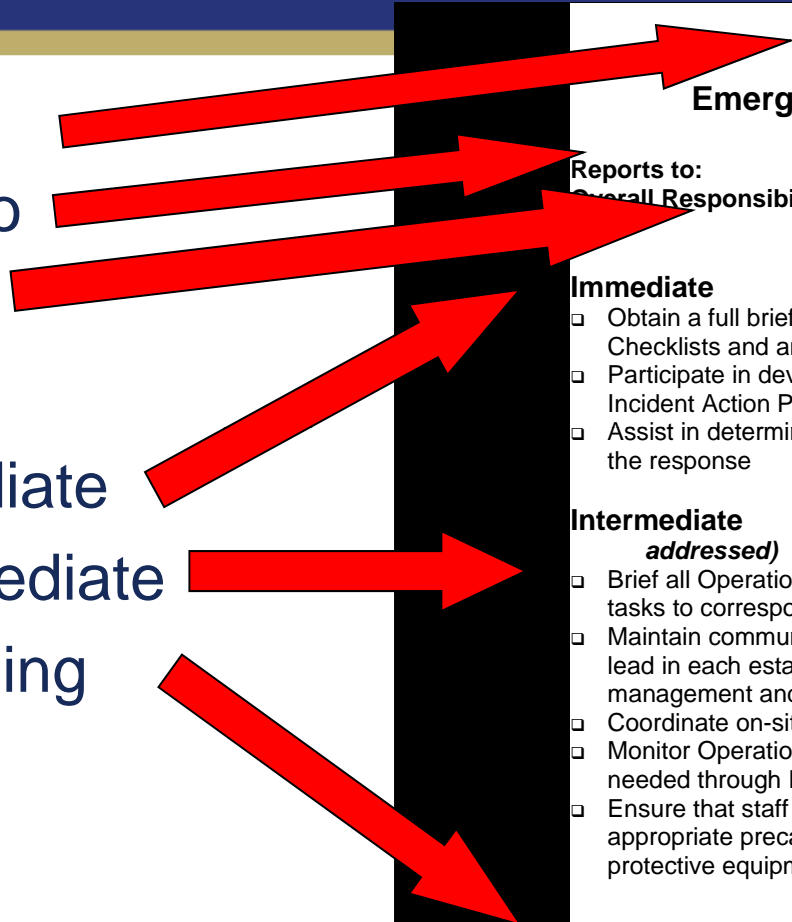




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- Role title
- Reports to
- Mission
- Tasks
 - Immediate
 - Intermediate
 - On-Going



OPERATIONS LEAD (OL) Emergency Response Function Checklist

Reports to: Public Health Incident Manager (PHIM)
Overall Responsibility: To manage overall public health response operations as applicable to the event.

Immediate *(Tasks to be completed first upon assuming the role)*

- ❑ Obtain a full briefing of the Incident and obtain appropriate Function Checklists and any pertinent forms
- ❑ Participate in developing and implementing objectives and strategies for the Incident Action Plan,
- ❑ Assist in determining appropriate resources for Operations function to initiate the response

Intermediate *(Tasks to be completed after the immediate tasks are addressed)*

- ❑ Brief all Operations sub-function leads on current situations and add or delete tasks to corresponding Function Checklists as appropriate
- ❑ Maintain communications with field operations staff through each sub-function lead in each established Operational sub-function (e.g. hotline, case management and contact tracing)
- ❑ Coordinate on-site TPH resources and equipment
- ❑ Monitor Operations function to achieve objectives – request resources as needed through PHIM.
- ❑ Ensure that staff assigned to Operations are aware of potential hazards and appropriate precautionary and/or take appropriate measures, wear personal protective equipment provided and have obtained appropriate training

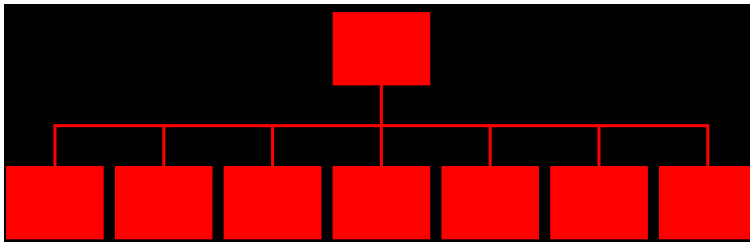
On-Going

- ❑ Observe staff for signs of stress and report concerns to Operations-Psychosocial Intervention.
- ❑ Ensure rest periods and relief for staff
- ❑ Prepare end of shift briefing and update for back up Operations lead
- ❑ Plan for the possibility of extended deployment
- ❑ Attend meetings designated by PHIM as part of the emergency planning cycle
- ❑ Monitor and review work progress of Operations sub-functions
- ❑ Routinely update Operations sub-function leads on the status of the incident
- ❑ Maintain communications with other function leads e.g. Liaison, Planning
- ❑ Verify that Operations staff are performing work safely

IMS - Components

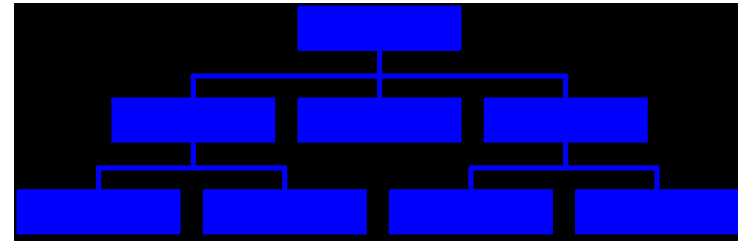
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Span of Control: The number of subordinates that a superior can manage effectively



Ineffective

- Was “management by committee”



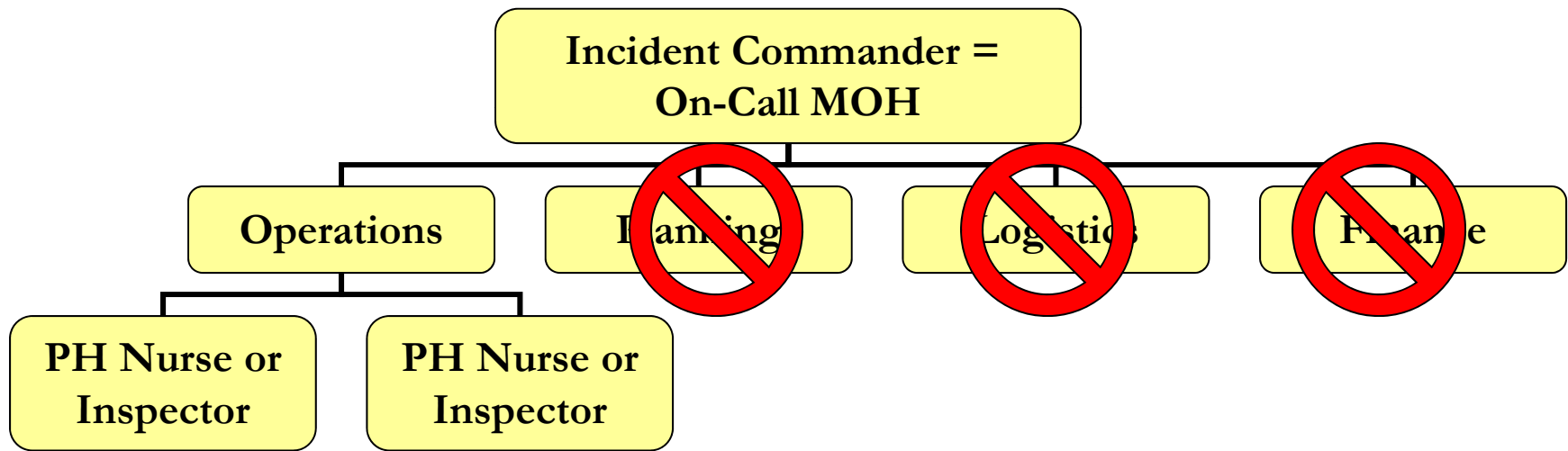
Effective

- Now each person reports up to one supervisor

How Does This Work in Real Life in a PHU?

- Incident occurs
- Notification
 - Official (eg – Police / MOHLTC EMU)
 - Unofficial (ie people start calling...!)
- On-call Medical Officer of Health (MOH) becomes Incident Commander/Manager

Initial Response



Initial Response (cont'd)

- Priorities and objectives established
- On-site command developed
- Multi agency communication established
- Resource needs and allocation identified

**NEEDS EXCEED
AVAILABLE RESOURCES**

The Incident Progresses...

- Decision to initiate local / regional plans
- Fan-Out process
 - Health unit staff
 - Leadership
- Senior on-site leader assumes IC role
 - Establishes EOC / Command Post
 - Begins to assign roles / responsibilities
- Replaced by more senior staff as they arrive
- Call OAHPP?

Full-Scale Public Health Response

- Incident Commander appoints key personnel
 - Four section Chiefs
 - Liaison / Information / Security
- Job Action Sheets distributed and checklists begin
- Priorities and objectives established
 - Incident Action Plan(s) developed
- Span(s) of control established

Full-Scale PH Response (cont'd)

- Multi-agency communication established (Hospitals, EMS, Other PHUs, Public Health Lab, OAHPP)
- Resource allocation identified
- Tracking, evaluation, and cost recovery initiated
- Off-site command established (as needed)
- Information released to media / public
- Recovery processes developed

Questions ?