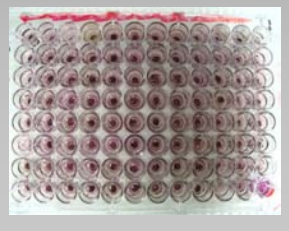
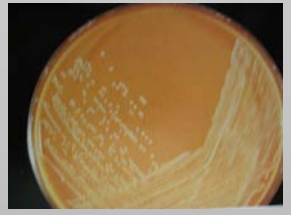
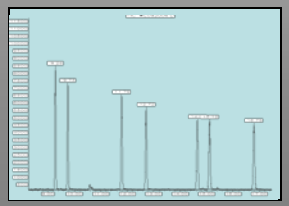






Development & Implementation of a Lean Process Implementation Plan

Jeffrey P. Massey, Dr.P.H., HCLD(ABB)
Quality Manager
Michigan Department of Community Health Bureau of Laboratories

Lean Waste

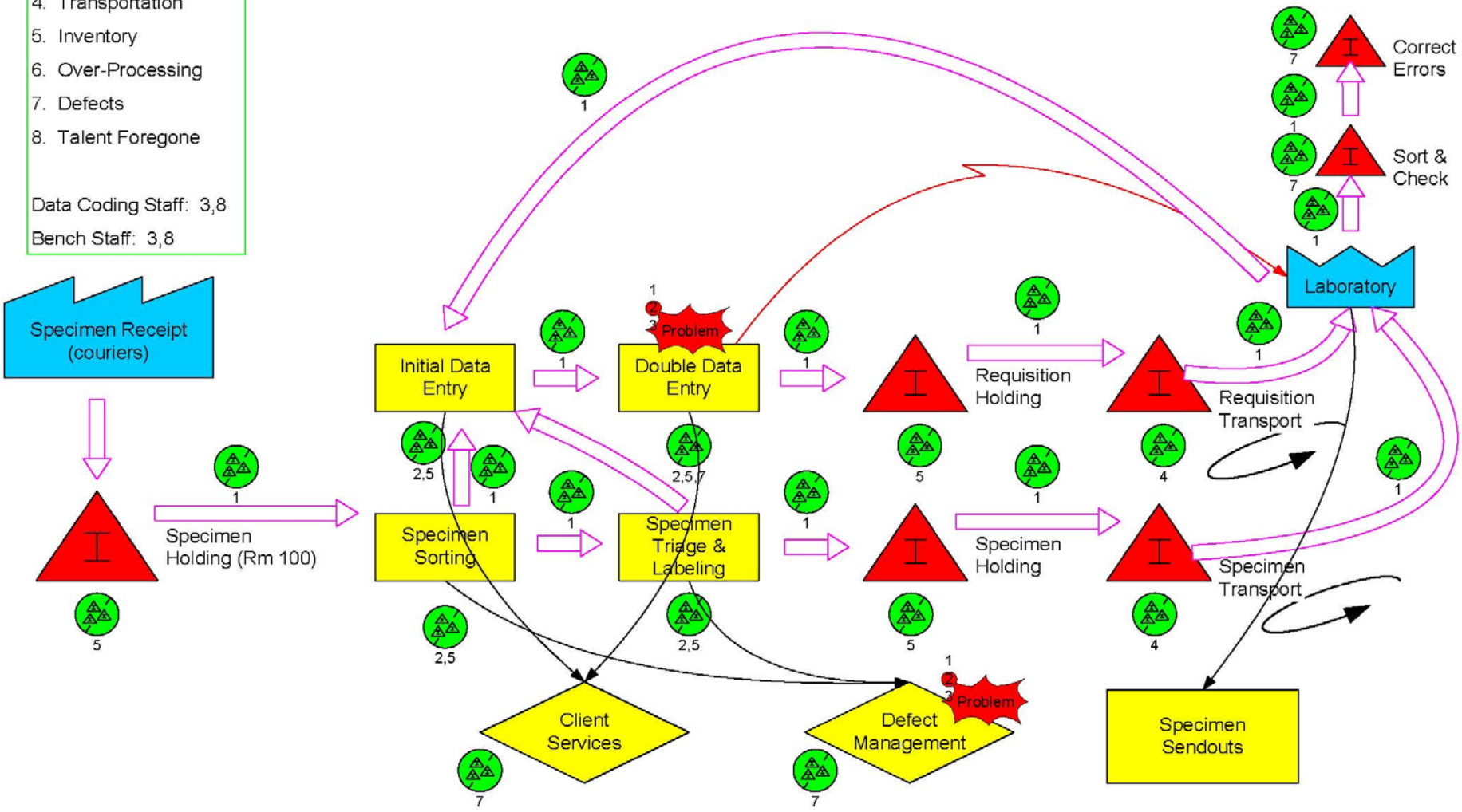
1. Overproduction
2. Waiting
3. Motion
4. Transportation
5. Inventory
6. Over-Processing
7. Defects
8. Talent Foregone

Data Coding Staff: 3,8

Bench Staff: 3,8

Current Value Stream Map:

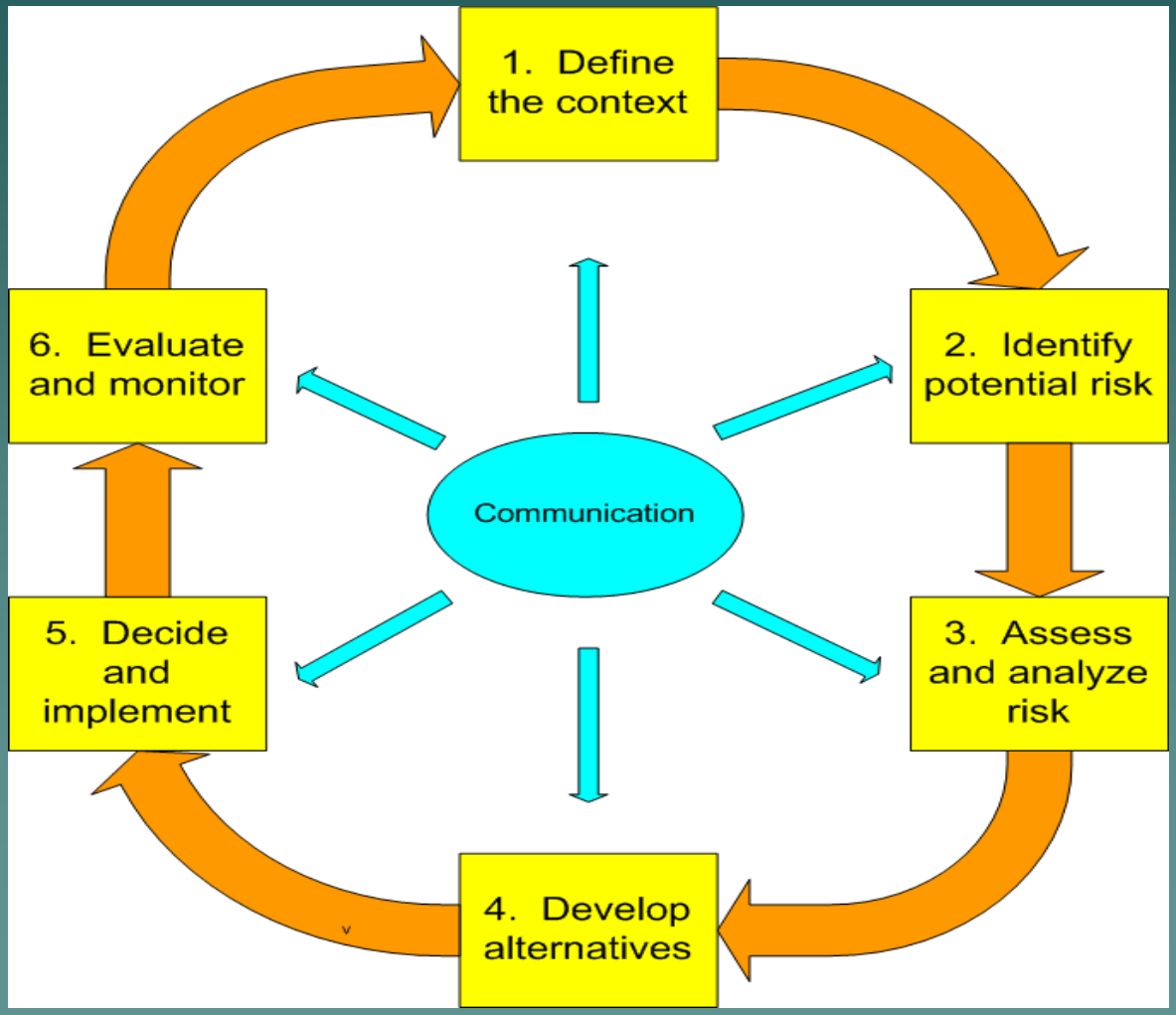
DASH Unit – Specimen Accessioning & Data Entry



NVA/VA: Data Entry — 125 Min Unit | 50 sec Unit | 75 min Unit | 68 sec Unit | Requisition wait: 60 min Unit

NVA/VA: Accessioning — 195 min Unit | 720 sec Unit | 41 min Unit | 20 sec Unit | Specimen wait: 10 min Unit

Risk Management Cycle



Bureau of Laboratories

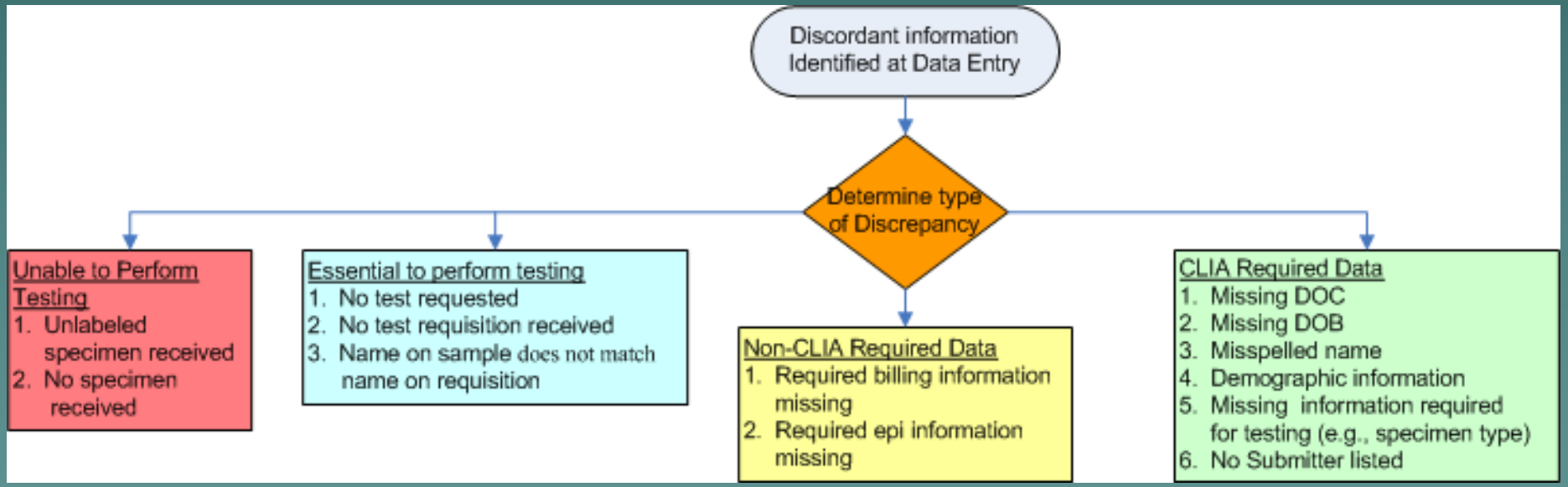
Problem Identification

- Specimens tested – reports held if discordant information present
- No definitive lab policy for reporting results with discordant information
- Regulatory deficiency – reports held past established TAT

MDCH Bureau of Laboratories

Brainstorm: Define Scope of the Problem

- Define type of discordant information
  - What type of error will suppress reports?



MDCH Bureau of Laboratories

Type of Mismatches

- Missing information
- Discrepancy between specimen & requisition
- Wrong or no specimen received
- Unauthorized specimen received
- Test not available
- Specimen improperly submitted or leaking

Bureau of Laboratories

Will report be suppressed?

- Missing information (YES)
- Discrepancy between specimen & requisition (YES)
- Wrong or no specimen received (NO)
- Unauthorized specimen received (NO)
- Test not available (NO)
- Specimen improperly submitted or leaking (NO)

MDCH Bureau of Laboratories

Define Current Process

Error identification during specimen triage

- Day 1: fax correction form
- Day7: initial follow-up via fax
- Day 14: telephone follow-up via phone
- Day 30: final follow-up
- Day 30: report unsatisfactory if not resolved

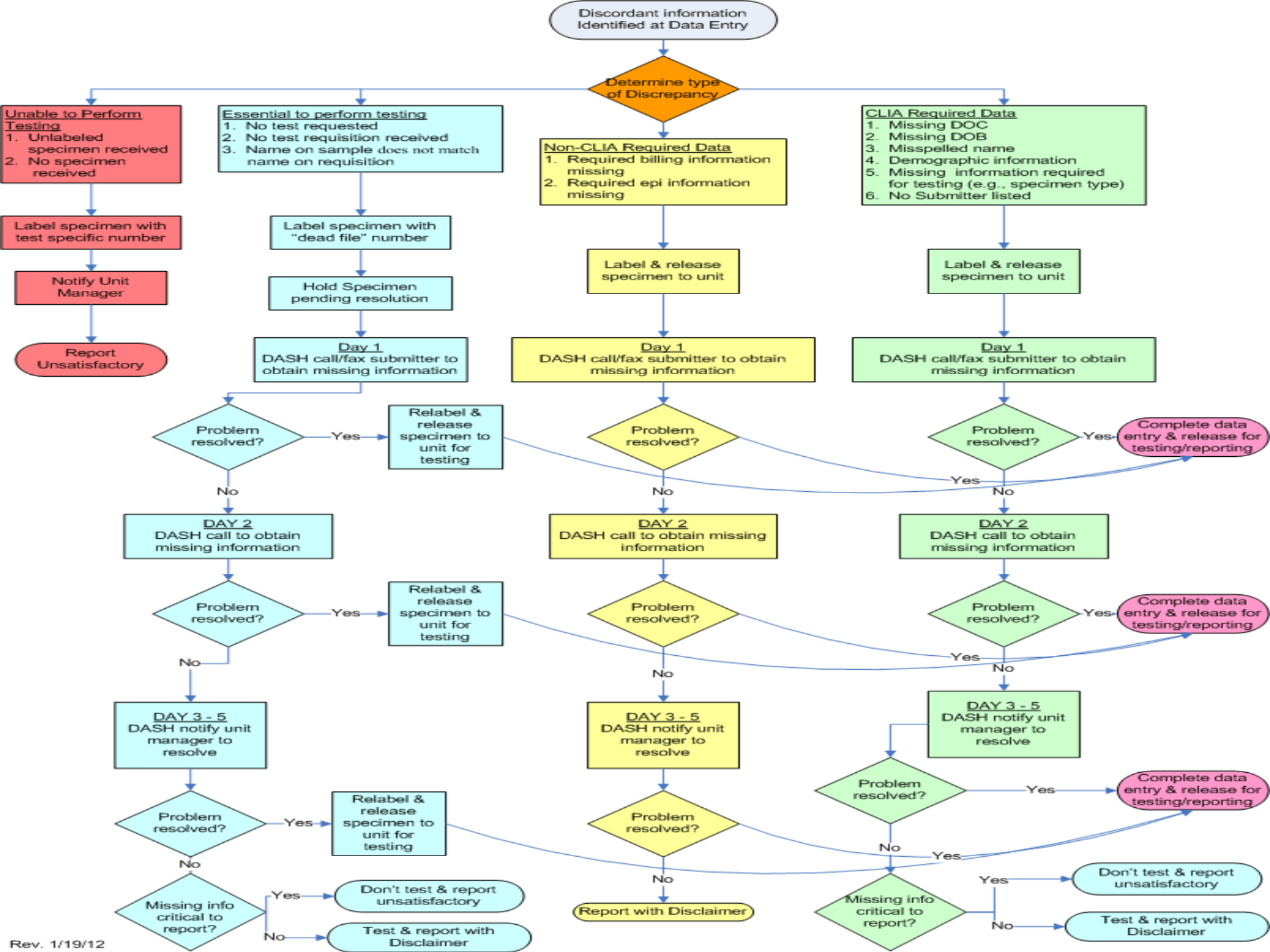
MDCH Bureau of Laboratories

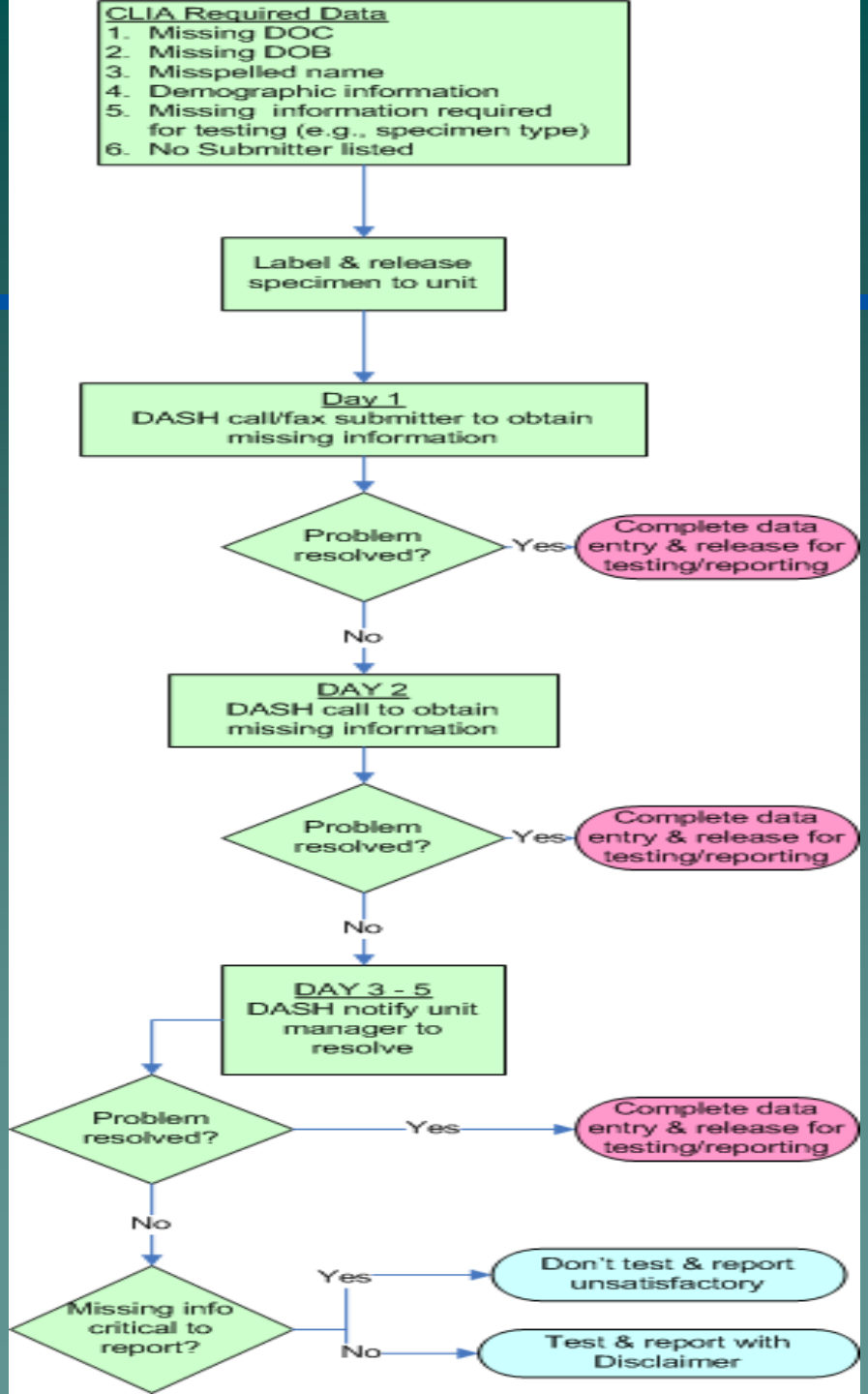
Define Future State

- Day 1: DASH detects error during specimen triage
- Day 1: DASH calls submitter to resolve. Release specimen for testing/reporting if resolved.
  - Fax requisition if change must be made in writing.
- Day 2: If unresolved, DASH makes repeat contact.
- Day 5: If still unresolved, manager contacts submitter to resolve.

If still unresolved, manager reports with disclaimer or reports as unsatisfactory.

MDCH Bureau of Laboratories


Discordant information Identified at Data Entry
Determine type of Discrepancy
Unable to Perform Testing
1. Unlabeled specimen received
2. No specimen received
Label specimen with test specific number
Notify Unit Manager
Report Unsatisfactory
Essential to perform testing
1. No test requested
2. No test requisition received
3. Name on sample does not match name on requisition
Label specimen with "dead file" number
Hold Specimen pending resolution
Day 1
DASH call/fax submitter to obtain missing information
Problem resolved?
Yes
Relabel & release specimen to unit for testing
No
DAY 2
DASH call to obtain missing information
Problem resolved?
Yes
Relabel & release specimen to unit for testing
No
DAY 3 - 5
DASH notify unit manager to resolve
Problem resolved?
Yes
Relabel & release specimen to unit for testing
No
Missing info critical to report?
Yes
Don't test & report unsatisfactory
No
Test & report with Disclaimer
Non-CLIA Required Data
1. Required billing information missing
2. Required epi information missing
Label & release specimen to unit
Day 1
DASH call/fax submitter to obtain missing information
Problem resolved?
Yes
No
DAY 2
DASH call to obtain missing information
Problem resolved?
Yes
No
DAY 3 - 5
DASH notify unit manager to resolve
Problem resolved?
Yes
No
Report with Disclaimer
CLIA Required Data
1. Missing DOC
2. Missing DOB
3. Misspelled name
4. Demographic information
5. Missing information required for testing (e.g., specimen type)
6. No Submitter listed
Label & release specimen to unit
Day 1
DASH call/fax submitter to obtain missing information
Problem resolved?
Yes
Complete data entry & release for testing/reporting
Yes
No
DAY 2
DASH call to obtain missing information
Problem resolved?
Yes
Complete data entry & release for testing/reporting
Yes
No
DAY 3 - 5
DASH notify unit manager to resolve
Problem resolved?
Yes
Complete data entry & release for testing/reporting
No
Yes
Missing info critical to report?
Yes
Don't test & report unsatisfactory
No
Test & report with Disclaimer
Rev. 1/19/12



MDCH Bureau of Laboratories

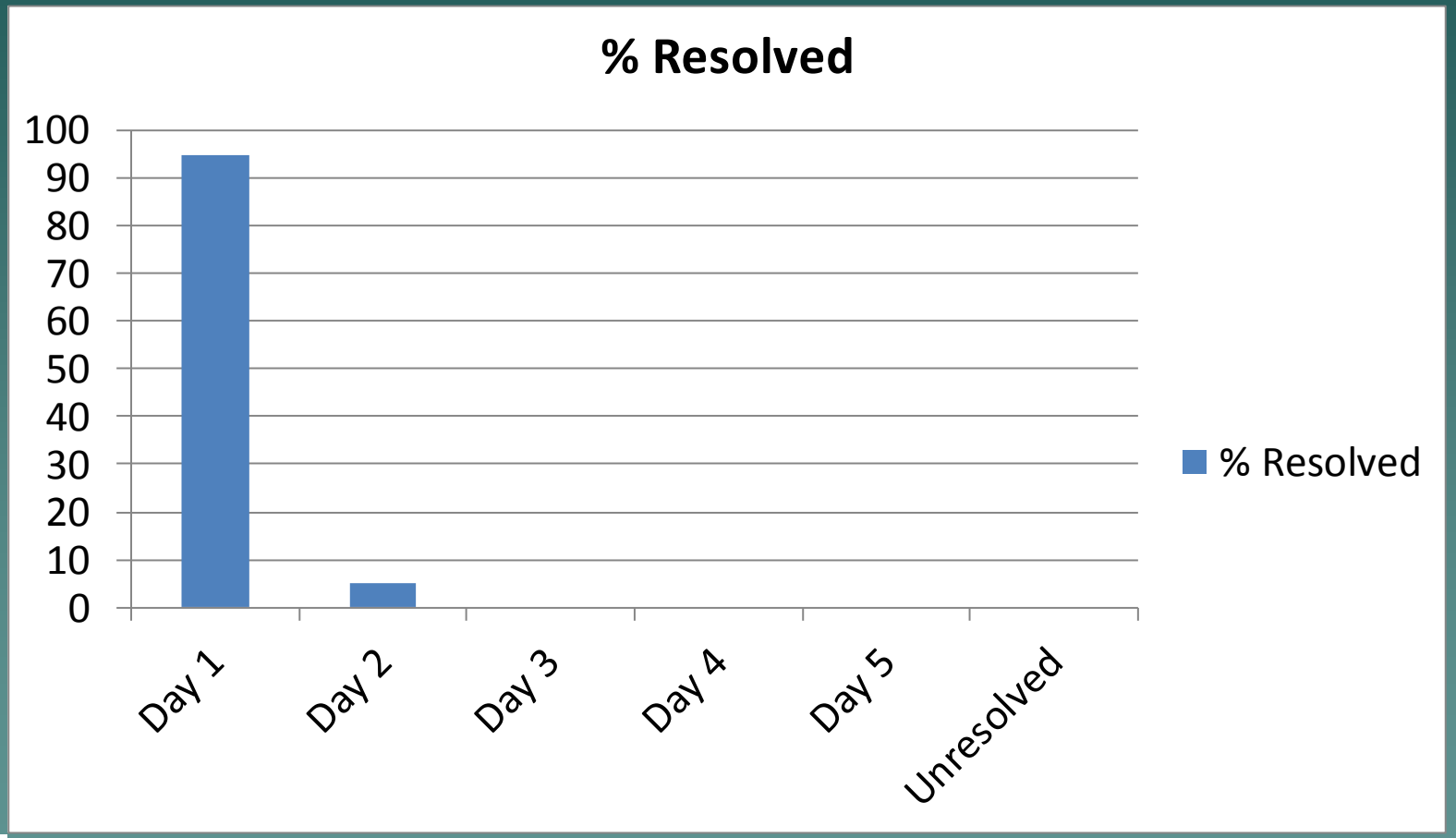
Pilot Study

One week period, document:

- # and type of mismatches
- # resolved at Day 1
- # resolved at Day 2
- # resolved by Manager
- # unresolved & reported with disclaimer
- # unresolved & reported as unsatisfactory

MDCH Bureau of Laboratories

Assessment of Effectiveness (following implementation)

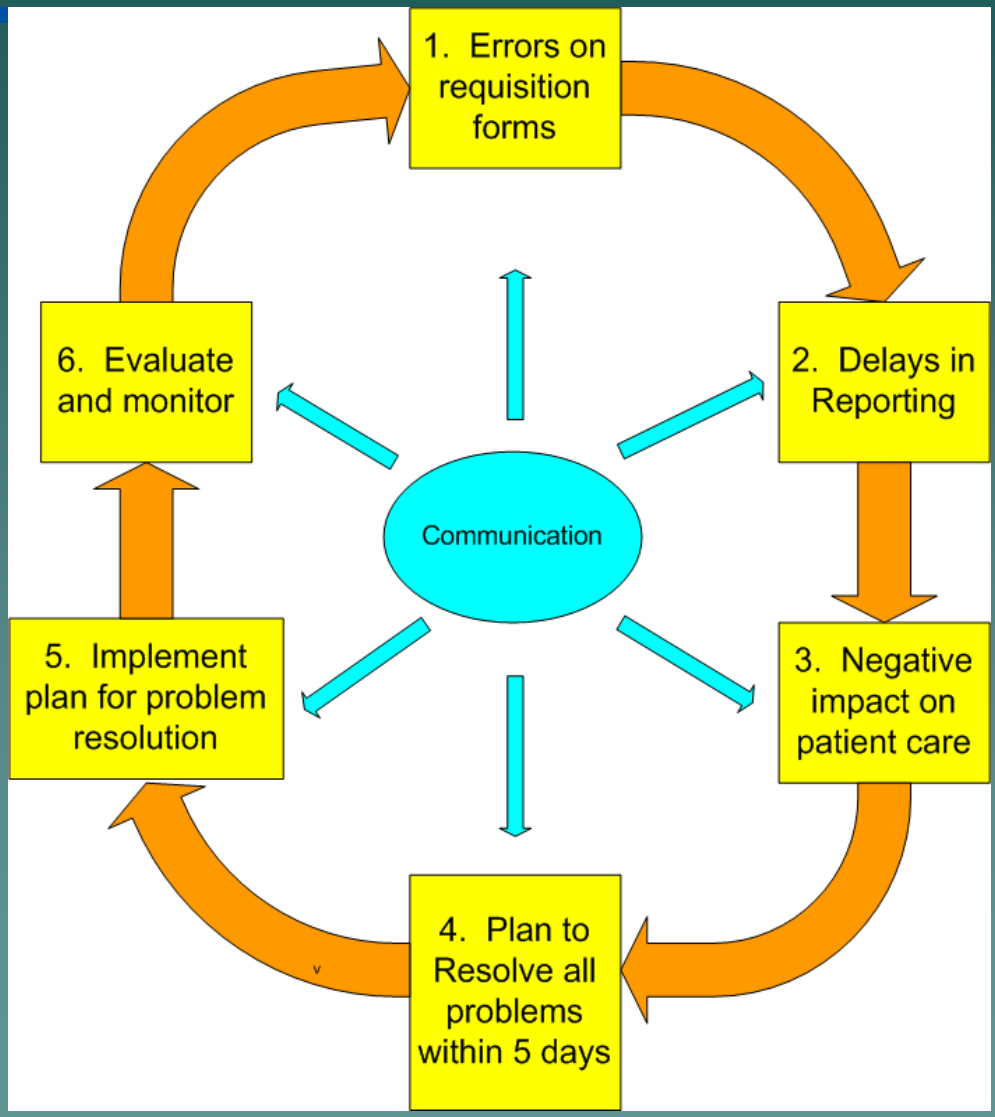


N = 40

MDCH Bureau of Laboratories

Risk Management Cycle

- 1. Define the context
- 2. Identify potential risk
- 3. Assess & analyze risk
- 4. Develop alternatives
- 5. Decide & implement
- 6. Evaluate & monitor



MDCH Bureau of Laboratories

Lessons Learned

- Understand current process before implementing a change
- Get input from staff doing the work before implementing a change
- Communication essential
  - Get input
  - Share ideas
  - Convey results & educate

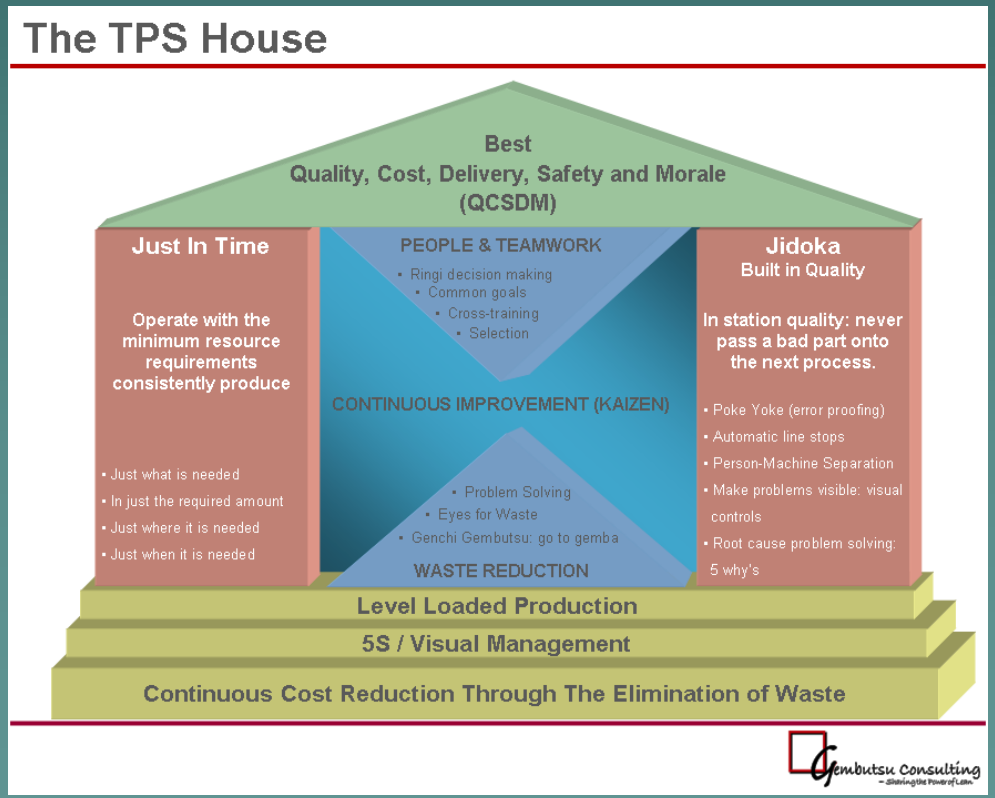
Bureau of Laboratories

Lean is Great When it Works, What Could Possibly Go Wrong??????

Bureau of Laboratories

Problems

- Make changes without prior planning or establishing a foundation of quality



MDCH Bureau of Laboratories

Questions???

Bureau of Laboratories