Continuity of Operations During Disasters:
Electronic Systems and Medical Records

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Date: July 14, 2016

PATIENT CARE
- A wide range of pediatric services and specialties
- The proven ability to deliver some of the best child health outcomes in the country
- A range of new and unique healthcare technologies

RESEARCH
- In 2019, the Department of Pediatrics at University of Colorado School of Medicine was ranked No. 1 in support from the National Institutes of Health
- Our laboratories allow Children’s Colorado physicians to collaborate with colleagues accelerating scientific discoveries from bench to bedside
- Our Pediatric Clinical Translational Research Center (PCTR) is one of only eight centers in the country that work exclusively in pediatric research

EDUCATION
- A close affiliation relationship with University of Colorado School of Medicine
- All physicians are board-certified in pediatrics
- All nurses have, at minimum, a Bachelor of Science in Nursing

ADVOCACY
- Our Children’s Health Advocacy Institute (CHAI) advocates at the state and national legislatures for children’s health issues
- In 2012, we donated more than $70 million back to the community

Idaho Health Care Association
Objectives

1. Understand COOP as it applies to healthcare operations
2. Value of utilizing past planning activities to assist in COOP implementation
3. Understand how COOP impacts electronic records and electronic systems

Disaster Scenario

Your IT Director just called to inform you that the internal network and all phone lines are down. The root cause of the failure is unknown, however a virus or failed switch is suspected.

The Incident Command Center has been activated and you have been requested to attend.
Now what?

The Incident Commander needs your assistance in determining your department’s and facility response.

What’s your plan?
What are your immediate concerns?
Where should the Incident Commander focus resources?
Where do you get your information?

COOP Application

What if we had started the conversion with...

1. We need your help to review the essential functions, downtime procedures, and the communications plan. Is this information accurate?
2. We need you to implement your downtime and recovery plans. Please let us know where we can assist you.

Four Competing Programs
Differences
Continuity of Government (COG)
  • Government sector focused
  • Command and control, response and recovery
Business Continuity Planning (BCP)
  • Private sector focus
  • Profit based
  • Proactive
  • Resume business operations quickly

Differences (CONTINUED)
Information Technology – Disaster Recovery (IT DR)
  • Private sector focus
  • Profit perspective
  • Focused on IT DR recovery
  • Reactive
  • Feeds into COOP
Continuity of Operations (COOP)
  • Governmental sector focus
  • Proactive
  • Resolve inter-Agency conflicts (Coalitions)
  • All hazards approach

Similarities
  • Focused on maintaining essential functions
  • Focused on disaster recovery
  • Assists in recovery operations

  Utilize planning elements applicable to agency specific objectives
Other Commonly Used Terms

- Business Continuity
- Disaster Recovery
- Business Resumption
- Contingency Planning
- IT Contingency Plan
- Operational Continuity

COOP Versus IT DR

- Continuity of Operations (COOP)
- Information Technology Disaster Recovery (IT DR)

Regulatory Impact

- CMS Proposed Standard
- Tied into some Preparedness Program (HPP) grant funding
- Health Insurance Portability and Accountability Act (HIPAA)
- Federal Information Security Management Act (FISMA)
- Federal Risk and Authorization Management Program (FedRamp)
- National Institute of Standards and Technology (NIST) SP 800-34, Revision 1- Contingency Planning Guide for Federal Information Systems
- Accreditation Requirements

What other standards require data recovery?
HIPAA

- Big Three
  - Privacy
  - Confidential
  - Security
- Failure in the big three results in Breach Notification
- There is no exemption from the privacy rule in case of event
- Safeguards must be proactively built into the response plan

FEMA Definition

Continuity of Operations, ..., is an effort within individual executive departments and agencies to ensure that Primary Mission Essential Functions (PMEFs) continue to be performed during a wide range of emergencies, including localized acts of nature, accidents and technological or attack-related emergencies.°

°http://www.fema.gov/pdf/about/org/ncp/coop_brochure.pdf

Children’s Definition

Continuity of Operations (COOP) is the initiative that ensures that all departments, at the modality level, are able to continue operation of their essential functions under a broad range of circumstances.

A modality driven approach to COOP provides the facility with a more comprehensive understanding of operations.

- “All hazards”
Other Key Definitions

Downtime is the period of time when something, such as a building system failure, aspect, or process that contributes to the essential function is not in operation.

Recovery are the actions taken to return to a normal or an even safer situation following downtime (emergency). Recovery includes getting financial assistance.

Information Technology Disaster Recovery is the process Information Technology follows for responding to unplanned incidents that threaten IT infrastructure.

Activation

Any event which disrupts or threatens to disrupt normal business operations for an extended period of time

- IT failure
  - Hardware, software, networks, processes, and people
- Utility failure
  - Building (mold, asbestos, structural)
- Communications failure
- Natural disaster
- Others

Benefits of COOP

- Competitive Advantage
- Ability to Assess Operational Impact of Downtime
  - Improved Response = Faster Recovery
- Operational Efficiency
- Sustainability – Succession Planning
- Risk Identification and Reduction
  - Reduced Insurance Premiums
- Leadership Engagement
- Back up of Critical Documents
- Identification of Alternate Care Locations
- Standardized Downtime Procedures
- Quantitative Analytics
CHCO Lessons Learned

• COOP is the foundation of the Emergency Operations Plan (EOP)
• Develop your own interview tool
• Conduct operational profiles at the modality level
• Integrate existing processes
• Leadership support critical
• Limited COOP healthcare expertise
• Meet with line managers when possible
• Communicate effectively and showcase results
• Develop a sustainable COOP process
• Review with healthcare partners
• Operational overview, legal

CHCO Opportunities

Downtime Procedures
• Expanded definition

Recovery Procedures
• Not just IT related

Alternate Care Locations
Integrate COOP with other internal systems

Vital Records Requiring IT DR

Definition
• Documents that are critical to the essential operation of the facility

Examples
• Staffing/HR
• Credentialing
• Contracts/Vendors
• Bylaws
• Accounting/Payroll
• Finance
• Policies/Procedures
• Vendor
• Legal/contracts
• Building Information Management
• HVA
Essential Functions Definitions

FEMA defines as the critical activities that are performed by organization, especially after a disruption of normal activities*.

...essential functions are an agency's business functions that must continue with no or minimal disruption**.

Children’s Hospital defines as the fundamental role(s) that a department fulfills within the context of facility operations

*https://www.fema.gov/pdf/about/offices/fcd2_b.pdf
**https://www.training.fema.gov/hiedu/docs/cgo/week%204-%20lesson%202-%20elements%20of%20a%20viable%20coop.pdf

Interview Example

It is useful to thinking of the department as the title of a book. The chapters are the functions of the department and the processes are the pages that fill the chapter(s).

Example: The title (department) of our book will be the Emergency Department.

The essential function(s) (chapters) of the Emergency Department are triage, assess, and stabilize; all of the numerous processes that take place within an emergency department in order to perform these essential function(s) fall under the chapters of triage, assess, and stabilize.

Sample Essential Functions

• To inform, create awareness, and educate internally to a variety of team member roles.
• Maintain a compensation and classification system
• Provide oversight and consultation in supporting the care of children with health needs in the community/schools
The Big Question

How Do I Implement COOP/IT DR?

Options
Develop program internally
- Internal resources
- State resources
- Healthcare Association resources
- Sample plans
- Partner facilities
Contract with a experienced/competent healthcare consultant

Children’s Model
Operationalize where possible
Driven by clinical support/leadership
Utilize existing resources/data streams
- Partner with data/application owners
Minimize leadership data entry
Translate COOP/IT DR language into healthcare
Leadership approach
- Feedback driven
COOP/IT DR Implementation Steps

1. Create a steering committee comprised of a diverse team of leaders who understand operations, business continuity, and risk
   - Senior leadership support critical

2. Develop a plan and implementation strategy

3. Develop an operational profile (business impact analysis) interview tool and risk tools
   - Standardization

4. Conduct manager interviews

5. Test/modify the COOP/IT DR plan

6. Reevaluate COOP/IT DR and integrate with other systems

Note: Additional steps may be necessary to meet your facility needs

Steering Committee

Create a steering committee comprised of a diverse team of leaders who understand operations, IT, business continuity, and risk.

- Senior leadership support critical

Suggested Members

- Information Security
- IT DR
- Risk
- Operations
- Safety
- Nursing

Charter, to include scope
Operational Profile

Similar to the Business Impact Analysis (BIA) tool developed for Business Continuity Planning

• Most challenging part of COOP
• The Operational Profile provides a detailed assessment of operations
• Terminology differences

Opportunity to conduct in-depth evaluations on the department level operations

Downtime and Recovery Procedures

<table>
<thead>
<tr>
<th>Information Technology Downtime Procedures</th>
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<tbody>
<tr>
<td>Application</td>
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<tr>
<td>Downtime Procedures</td>
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<tr>
<td>Recovery Procedures</td>
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<tr>
<td>Resource</td>
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</tbody>
</table>
Manager Interview

Critical questions to ask:

- How critical is the application to the department?
- Do you have an alternate application?
- Do you have written downtime and recovery procedures?
- What data is necessary for opening a new location?
- What is your process for using manual materials?
  - Complex cases
  - Pharmaceutical

Leadership Support

How do I engage leadership?

- Speak their language
- Operationalize COOP/IT DR
- Demonstrate value
- Risk minimization
- Annual executive review

How do I sell the program?

- One Manager at a time
- External experts
QUESTIONS?

Electronic copy available on the Children’s Hospital EM Website
http://www.childrenscolorado.org/health-professionals/emergency-management

Available Resources

Children’s Hospital Colorado
http://www.childrenscolorado.org/health-professionals/emergency-management

Kansas Department of Health and Environment

Colorado Hospital Association

California Hospital Association
http://www.calhospitalprepare.org/continuity-planning

Nebraska Medical Response