# Health Care Organization

## *Business Continuity and Disaster Recovery Planning Benchmark Study*

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MHA Consulting, Inc.

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# *Current State of Healthcare Organization BCDR Programs*

Over the past 18 months, MHA Consulting conducted evaluations at Healthcare Organizations (HCOs) to assess the current state of BCDR. These Current State Assessments (CSAs) identified the maturity level of HCOs' ability to recover technology (*technical recovery planning-TRP)* and business (*business recovery planning-BRP)*. At the conclusion of each CSA, MHA assigned a maturity level to each category of recovery capability. Industry best practices published by the Disaster Recovery Institute International (DRII) served as the Generally Accepted Practice (GAP). The following are the maturity levels:

| BCP Program Maturity Level |
|---|
| **Level 0–"Non-Existent"**<br>BCP not recognized as strategically important by management. |
| **Level 1–"Ad-Hoc"**<br>BCP is valued but not a priority; there are very limited plans in place. |
| **Level 2–"Aware"**<br>BCP Office exists. Management oversight and governance; several departments may have high level of preparedness; business moderately prepared. |
| **Level 3–Capable**<br>BCP Office exists; policy, methodology, BCP for all critical processes; recovery exercises. |
| **Level 4–"Mature"**<br>All departments tested all elements of their plans; senior management; crisis management exercises; long-term strategic plans for BCP; multi-departmental exercises. |
| **Level 5–Best of Breed**<br>Metrics demonstrate high level of BCP competency. Complex BCP strategies successfully tested both upstream and downstream with business partners. |

### *HCOs Interviewed*

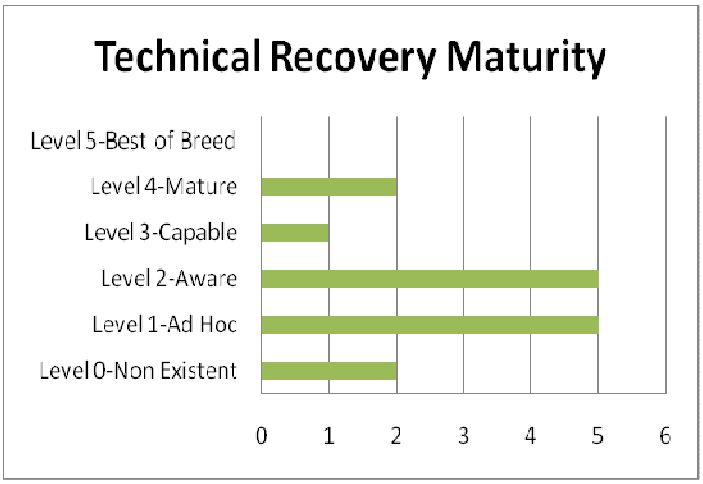
MHA conducted the majority of CSAs while on site as part of BCDR consulting engagements. Consultants conducted two of the CSAs via telephone interviews. The typical hospital evaluated in this study has 100+ licensed beds, utilizes best-of-breed information technology, has multiple locations, and is part of a regional hospital network. The HCOs evaluated were in the following states:

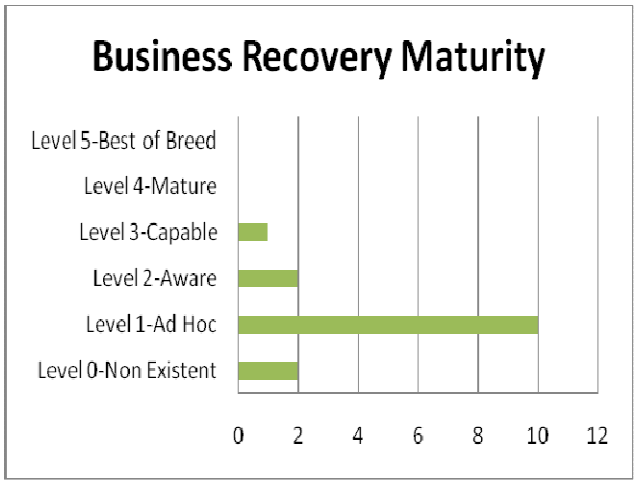
- Arizona
- Florida
- Louisiana
- Minnesota
- Mississippi
- Nebraska
- Ohio
- Pennsylvania
- Virginia

HCO departments interviewed as part of the CSAs include personnel from I.S., Facilities Management, Safety, and Clinical Management.

### *BCP Program Maturity Levels*

The following are the maturity levels of Business Recovery Planning (BRP) and Technical Recovery Planning (TRP) at 15 HCOs:






***Key Findings***

The CSAs reveal a number of significant findings that management should review:

***BCDR Planning Program Structure and Integration***

BCDR programs are generally nonexistent (Level 0-Non Existent) or in the infancy stage (Level 1-Self Supported). It is the exception and not the rule to find a dedicated BCDR Office with certified, business continuity planning personnel.

In a bottom-up versus top-down approach I.S. leads the implementation of BCDR planning at most HCOs. The Hospital Emergency Incident Command System (HEICS) process is generally not integrated with the BCDR process.

Formal management governance and oversight is limited in the majority of HCOs. This lack of governance leads to misguided efforts and direction.

Documented policies and standards mandating the development, implementation, testing, and maintenance of the program are limited to nonexistent.

When an organization had documented a policy, it had often not been implemented. If a policy was implemented, it was often not properly communicated, enforced, and/or monitored for compliance.

***Ability to Recover Care Delivery Systems Following an Unplanned Disruption***

The study determined that a majority of HCOs cannot effectively recover their systems or processes to minimize the impact of disruption on patients' care and safety. This inability is primarily due to a lack of an alternate I.S. processing site, poorly documented plans, and/or an inadequate level of testing.

MHA further determined that the majority of HCOs with an alternate I.S. processing site have limited to moderate success in testing the recovery of their systems and applications. This limited success is due to a lack of regular testing, lack of a standardized exercise methodology, and/or a lack of properly documented recovery plans.

***Data Backup and Offsite Storage Processes***

Many HCOs continue to rely on traditional methodologies, for example, tape, for the nightly backup of production data. This methodology no longer meets the short recovery time objectives or the need to keep the potential for data loss to an absolute minimum. Additionally, a number of HCOs continue to ignore best practices by continuing to store nightly production backups onsite, placing their organization in the position of losing critical data should a disaster strike their facility.

***Acquisitions Impact I.S. Recovery Planning***

HCOs that grew from acquisition are often overwhelmed by the sheer number of mission-critical applications and platforms that have to be identified, prioritized, and protected. Many HCOs have disparate applications performing the same function for more than one of the hospitals they have acquired. The best practices of application consolidation are ignored, requiring the prioritization of hundreds of applications and the documentation of plans to implement recovery strategies. It is not uncommon for hospitals to have between 500 to 800 production applications.

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***Past Experience with Disasters Leads to Heightened Need for BCDR***

HCOs that have experienced a major disaster or are located in a geographic region with a predisposition for natural disasters report that management considers BCDR of strategic importance to patients' safety and care delivery.

***Sample HCO I.S. Recovery Capabilities***

A sampling of HCOs and their current I.S. recovery capabilities revealed:

- Major HCO in North Carolina has a redundant data center 40km away mirroring its 100+ mission critical applications. Future plans are to move the second data center to a new location, 100km away.
- HCO in Cleveland tests twice a year at Sungard but is considering a mirroring architecture using a second data center.
- Carolinas HCO uses tape recovery at its own in-house disaster recovery center.
- A children's HCO in Ohio uses leased space to serve as a second data center, and uses a quick-ship agreement for hardware needs at time of disaster.
- A regional HCO is creating a new condo data center to replicate its 42 critical applications.
- A Michigan based HCO owns its own hot site to provide data redundancy. A quick-ship contract provides system redundancy at time of disaster.
- A leading Florida HCO is building a second data center to mirror key applications.
- The average number of mission critical applications was between 25 and 50.

***Characteristics of HCOs with Better than Average BCDR Programs***

Characteristics of the most mature programs include:

- Management Oversight and Governance
- Dedicated BCDR Personnel
- Funding to Implement Initiatives
- Documented and Executable Plans
- Alternate Processing Sites
- Sound Data Backup /Offsite Storage Practices
- Regular Testing of Plans
- Future Plans for Secondary Data Centers and Data Replication Strategies

**Current BCP Program by Industry [1]**

| Industry | No Plans | Devel. Plans Now | IT Plans Only | Select Depts. Only | Full Corp.-Wide Plans |
|---|---|---|---|---|---|
| Education | 8% | 17% | 0% | 50% | 25% |
| Finance | 0% | 6% | 3% | 29% | 62% |
| Healthcare | 2% | 25% | 17% | 49% | 8% |
| Insurance | 0% | 7% | 4% | 42% | 47% |
| Manufacturing | 6% | 8% | 17% | 47% | 22% |
| Retail | 8% | 4% | 21% | 50% | 17% |
| Telecom | 0% | 8% | 3% | 46% | 43% |
| Utilities | 0% | 8% | 8% | 56% | 28% |

**Recovery Time by Industry [1]**

| Industry | < 1 hr | 2-8 hrs | 9-24 hrs | 25-72 hrs | 72 hrs + |
|---|---|---|---|---|---|
| Education | 0% | 8% | 33% | 33% | 25% |
| Finance | 18% | 47% | 23% | 11% | 1% |
| Healthcare | 8% | 35% | 17% | 34% | 6% |
| Insurance | 5% | 20% | 20% | 43% | 13% |
| Manufacturing | 6% | 22% | 25% | 36% | 11% |
| Retail | 8% | 33% | 17% | 21% | 21% |
| Telecom | 27% | 35% | 22% | 16% | 0% |
| Utilities | 16% | 44% | 16% | 20% | 4% |

**Top 20 Challenging Issues for BCDR Professionals [1]**
**(In Order from Greatest to Least)**

- Size of BC/DR Staff
- Time Allocation
- Executive Buy-in
- Comprehensive BIA
- Global BCP Planning
- IT Recovery
- Funding/Budgeting
- Exercising of Plans
- Merging/Acquisitions
- Business Unit Buy-In
- Company Awareness
- SOX/HIPPA Workload
- Regulations Compliance
- BCP Software
- Participation of Employees
- Maintenance of Plans
- Documentation
- Training within BC/DR Discipline
- Project Management
- Audit

[1] **BC Management 2005 Benchmark Study** - A total of 902 respondents with 63 HCO's responding.

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# Conclusion

As we have established, HCOs are more reliant on I.S. than ever before, and the situation is not reversing itself. To be effective and to ensure continued patients' care and delivery in the event of an unplanned disruption, BCDR program plans must offer extensive contingencies for I.S. and clinical processes.

***Characteristics of Tomorrow's Leading HCO BCDR Program***

Tomorrow's leading-edge programs will have the following minimum characteristics:

- Continuous management oversight, governance, and funding.
- Single enterprise BCDR office responsible for enterprise BCDR and emergency management planning efforts.
- Ability to self-sustain patients' care and delivery services without any outside support for at least seven days in the event of a catastrophic disaster.
- I.S availability plans that account for technology that extends all the way to the patient's bedside.
- Realistic contingencies for disruption and their impact(s) on technology and clinical processes.
- A tiered approach to applications and systems prioritization.
- Achievement of recovery-time objective and recovery-point objective for the IT infrastructure that is acceptable to the clinical community.
- Robust I.S. best practices that reduce the number of unplanned disruptions typically caused by poor practices and people.
- Tandem execution of recovery plans and emergency management procedures.
- Comprehensive business recovery plans for the clinical and business processes.
- Continuous improvement plan that is reviewed and refreshed on a regular basis.

***Setting the Stage to Meet Tomorrow's Needs Today through Proper Risk Mitigation***

Management must ensure proper risk mitigation by considering the four pillars for information availability. These pillars are umbrella areas that are specific to care delivery:

**1. Human and Physical Elements**

- The ability to move to paper-based and other alternate procedures
- Emergency preparations to ensure continuous patient care
- Quality assurance process to test alternative procedures and emergency preparations

**2. Internal and Business Processes**

- Incorporation of change management policies and procedures

**3. Technology and Information Architecture**

- Systems and applications prioritization
- Ensuring highest levels of availability for care delivery systems
- Incorporation of change management policies and procedures

**4. Market and External Drivers**

- Regulations monitoring and compliance
- Adherence to service level agreements (SLAs)
- Consideration of industry norms and competitive approaches
- Business associate regulation monitoring and compliance

For HCOs, technology reliance dramatically increases their risk. Information availability is much more than just protecting data in the event of a disaster; it is also about protecting human life. HCOs must secure their "business" and ensure continuous operations for their people, processes, and technology by implementing a strategic initiative that goes beyond technology and their information system department.