

## Assessment 03 – Disaster Recovery Plan

In this assessment, you will assume the role of the senior nurse at a regional hospital who has been assigned to develop a disaster recovery plan for the community using MAP-IT and trace-mapping, which you will present to city officials and the disaster relief team.

Before you complete the detailed instructions in the courseroom, first review the full scenario and associated data below. Please refer back to this resource as necessary while you complete your assessment.

### Introduction

For a health care facility to be able to fill its role in the community, it must actively plan not only for normal operation, but also for worst-case scenarios which could occur. In such disasters, the hospital's services will be particularly crucial, even if the specifics of the disaster make it more difficult for the facility to stay open.

In this scenario, you will assume the role of the senior nurse at Valley City Regional Hospital. Like many facilities within this health system, Valley City Regional serves as the primary source of health care for a wide area of North Dakota. As such, it is even more imperative than usual that it stay open and operational in all situations. Doing this means planning and preparation.

The administrator of the hospital, Jennifer Paulson, wants to talk to you about disaster preparedness and recovery at Valley City Regional. But first, you should read some background information about events in Valley City in the past few years, including the involvement of the hospital.

### Background

Investigate further for relevant background information.

Newspaper Article: "HOPE FOR THE BEST, PLAN FOR THE WORST"  
Op-ed by Anne Levy, Valley City Herald

Valley City has had a great year, growing on a number of fronts. But all of our growth and success exists in the shadow of the recent past, a case of recent wounds slowly healing and fading to scars.

No one who was in Valley City two years ago will ever forget the catastrophic derailment of an oil-tanker train and the subsequent explosion and fire. While fatalities were fewer than they

could have been, six residents of our city lost their lives. Nearly two hundred were hospitalized, and much of the city was temporarily evacuated. Several homes near the railroad tracks were leveled, and our water supply was contaminated by oil leakage for several months.

Life has resumed, and we have begun to thrive again, in our fashion. But the nagging feeling recurs: When the disaster struck, were our institutions properly prepared? No one wakes up in the morning expecting a train derailment, of course. But responsible institutions think about things that could go wrong within the realm of possibility, and make a plan. Many individuals performed brave, inspired, selfless service in the chaos of the derailment, but it is clear in retrospect that much of the work was improvised, disorganized, and often circular or at cross-purposes.

For the first two hours of the crisis, the Valley City Fire Department was caught unprepared by the damage to the city water supply caused by the explosion, which was more extensive than had been considered possible. The fire and police departments had trouble coordinating radio communications, and a clear chain of command at the scene between departments was painfully slow to emerge. The hospital was woefully understaffed for the first six hours of the crisis, taking far too long to find a way to bring additional staff and resources onto the scene. The city health department was unacceptably dilatory in testing the municipal water supply for contaminants.

A call from the Herald's offices to City Hall confirmed that the city's disaster plan is over a decade old, and is unfortunately myopic both in the events it considers as possible disasters and in the agencies it plans for. It is of utmost importance to the future of our city that this plan be revised, revisited, and expanded. All city agencies should review their own disaster plans and coordinate with the city for a master plan. The same goes for crucial non-government agencies, most especially the Valley City Regional Hospital. Of course, this all exists in the shadow of budget cuts both at city hall and the hospital.

The sun is shining today, without a cloud in the sky. This is the time to make sure we are ready for the next storm, so to speak, to hit our city. No one knows what the next crisis will be or when it will come. But we can count on the fact that no one will get up that morning expecting it.

## Interview with Administrator

*Jennifer, Valley City Hospital Administrator*

"Hello! Thanks for stopping by. I hope you're settling in well.

"I'd been planning on talking to you about disaster planning in the near future anyway, but now it looks like it's a lot more urgent. I'm not sure if you've heard, but the National Weather Service says we're going to be at an elevated risk for severe tornadoes in Valley City this season. I'm taking that as a clear sign that it's time we get serious about disaster planning. And it's not just

me. The mayor just called me and asked the hospital to check our preparedness for a mass-casualty event, given recent qualms about the way the derailment was handled. For instance, did you see that op-ed in the paper about disaster planning?

"Anyway. My particular concern is patient triage in the near term and recovery efforts over the next six months. As I work on a more formal response to the Mayor about where we're at for this threat, I'd appreciate it if you could do some research and planning on this matter. Even if we dodge the bullet on these tornadoes, there'll be something else in the future. We need to stop putting it off and get serious about our disaster planning.

"What I'd like for you to do first is take some time to talk to a good cross-section of people here at the hospital about what happened last time, and about our disaster plan in general. Make sure you get people from administration as well as frontline care staff; after all, problems can be visible in one area but not another a lot of times. So spread it around! Since you weren't here for the train crisis, I think you're in a unique position to have a fresh, unbiased outlook on it. Actually, first you might find it useful to take a look at the hospital fact sheet, just to brush up on our basics here.

"After you've looked at the fact sheet and done some talking to people, I'd like you to swing back by and we'll talk about next steps. Thanks!"

## Fact Sheet: Valley City, ND

Population: 8,295 (up from 6,585 in 2010 census)

Median Age: 43.6 years  
Under age 18: 17.1%  
Between 18 and 24: 14.8%  
Between 25 and 44: 21.1%  
Between 46 and 64: 24.9%  
65 or older: 22%

Officially, residents are 93% white, 3% Latino, 2% African-American, 1% Native American, 1% other races.

Additionally, there are an unknown number of undocumented migrant workers with limited English proficiency.

Special needs: 204 residents are elderly with complex health conditions; 147 physically disabled and/or use lip-reading or American Sign Language to communicate.

Note that the Valley City Homeless shelter runs at capacity and is generally unable to accommodate all of the city's homeless population. Also, the city is in the midst of a financial crisis, with bankruptcy looming, and has instituted layoffs at the police and fire departments.

## Fact Sheet: Valley City Regional Hospital

105-bed hospital (currently 97 patients; 5 on ventilators, 2 in hospice care.)

NOTEWORTHY: Both of VCRH's ambulances are aging and in need of overhaul. Also, much of the hospital's basic infrastructure and equipment is old and showing wear. The hospital has run at persistent deficits and has been unable to upgrade; may be looking at downsizing nursing staff.

## Staff Interviews

### ***Kate McVeigh, RN***

"Hey there! Yeah, I think I have a minute or two to talk about the derailment. Wow. It's crazy. I guess that's been a while, but it still feels like it just happened. It's all so vivid!

"I was on shift when it happened, so I was here for the whole thing. The blast, the first few injuries, and then the wave. I think I was working for 16 hours before Heather, the former head nurse, told me to leave before I passed out.

"I just remember a big jumble. We had waves of people coming in before we were really aware of what we were up against. Someone actually brought out the disaster plan, but it was kind of useless. Just a bunch of words about using resources wisely and what have you, no concrete steps or plan. And then people started pouring in and we started treating them and there just wasn't time to figure out how to make that stuff about using resources wisely into an actual, concrete plan. I mean, of course it's good advice to use your resources wisely in an emergency! But just saying that doesn't help. Without a plan, we were just working our way through a line, or really more like a crowd, without any thought of triage or priorities or anything. You knew as you were doing it that it was bad, but what could you do? There was always a next person to help.

"You know what would have been useful in that disaster plan? Strict, functional checklists and lists of steps and such. Concrete plans for a chain of command. Clear lists of what to do and what our priorities should have been. And I'm just talking doctor and nurse time here, as far as waste goes. I know we had critical problems with supplies and such, but I was too focused on patient care to really know what was going on there.

"Okay—I have to go do rounds. Good luck. Yikes. I'm all anxious just thinking about that again."

### ***Megan Campbell, RN***

"Oh, I remember the night of the derailment really well. I'll never forget it. I was off that night, out for dinner with my family. Heard the boom and the word spread through the Pizza Hut about what had happened pretty quickly. I kept expecting a call telling me to come in to the hospital, but none ever came. After maybe ten minutes of that, I figured I'd better just come in on my own. It was pretty clear there were going to be a lot of people moving through the hospital.

"I guess that was a little bit of a failure, but it's nothing compared to what I saw when I showed up at the hospital. I just hustled into the ER and started helping out. It wasn't clear who was in charge, and nobody was making any decisions. People just started piling in with burn wounds, smoke inhalation, blunt trauma from the explosion, you name it. And we were just dealing with them first-come, first serve, more or less. Just working our way through the room while people kept coming in and piling up. I knew that this wasn't the right way to be doing this—heck, we all knew—but the room was too chaotic for anyone to take a second and say "stop" and impose some kind of systematic approach. I don't know for sure if any lives were lost because of the muddle, but I know people with some very serious injuries suffered a lot longer than they needed to while we were treating people with minor sprains and contusions who'd just happened to get to the ER a little earlier.

"Hope this helps!"

***Courtney Donovan, M.D.***

"I can't say that I feel great about the state of disaster planning here at the hospital. I know we keep talking about doing something, but it never seems to get any further than talk. I mean, no offense, but I think this is the third time since the derailment that someone has tried to talk to me about lessons learned. There's a point where just that repetition makes it clear that no lessons have been learned.

"But just to be a good sport: The big lesson from the derailment is that our staff is intelligent, resourceful, energetic, and flexible. That's the good news. Stuck with a horrific situation and a disaster plan that I'd describe as "aspirational," we got through a very rough event. It was more painful than it needed to be since we had to improvise most of it and improvisation is never the most efficient way to do things. But we provided real help to people, and I think we kept the loss of life admirably low.

"But Good Lord—there was no structure, no thought to anything. I tried to get the nurses to perform some triage, but they were too busy reacting to the latest mini-crisis to pop up in front of them. I don't blame them, of course! I tried to give some orders, but then like the nurses I was always pulled in to sit with the next patient, and someone else would come out and countermand whatever I'd said, and it just went on like that all night.

"On a personal level, I know I pushed myself too hard that night. I mean, with good reason, but still. I was exhausted and loopy after 14 hours or so, and it's just luck that I didn't make any

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serious medical errors. I'm not the only one who put it all out there. I know most of the medical staff were in bad shape towards the end, too. I guess that's always going to be a risk, but I think we could have planned our operations a little better. If we'd been more thoughtful about what we were doing, maybe we wouldn't have needed to grind ourselves down so far.

"You know what else? I've never felt good about our long-term check-ins afterwards. People who had recurring problems related to the derailment came in, but neither we at the hospital or anybody in public health did enough to check in with people on an ongoing basis in the months after the disaster. Even when we were having those water contamination issues! People forget about that—the derailment disaster really continued for months afterwards as the cleanup went on.

"I hope you're serious about taking this information and turning it into something useful. For god's sake, please don't just write it all down and keep it on your laptop this time."

***Mike Horgan, Associate Director Hospital Operations***

"I have been screaming about the need to update our disaster plan for years. I was screaming about it before the train incident, too, but nobody would listen then. I figured people might listen afterwards, but that hasn't been the case, at least so far. If I'm talking to you about this right now, maybe it's a good sign.

"Look. I respect the heck out of Jen Paulson, she's been a great hospital administrator. But she's also got a lot on her plate, and is never, ever able to properly take a step back and look at the big picture. Not her fault, it's a systemic thing.

"And all of our disaster-planning problems are systemic. The disaster plan as it exists is basically a binder full of memos, each memo just being something I or Jen or someone else went and wrote down after we'd had a conversation about what to do if there was a catastrophic snowstorm or what have you. At best, it works as a bunch of notes that you could use to build a real disaster plan out of. As something you could act on in a crisis? No way. And we proved that in the train incident.

"One thing that makes me crazy about all of this: in all of our conversations, we act like we here at the hospital can cook up a plan on our own that'll get us through anything. But that's just crazy. We can and should have a plan. But when the stuff hits the fan, we're not on our own and we can't work from a plan that pretends we are. We interface directly with first responders: the fire department, the EMTs, and the police and sheriff's departments. Our plan needs to coordinate with them. We saw that in spades on the night of the train explosion. We barely had functional communication with any of the other agencies for the first few hours of the crisis! People were being brought over by the ambulance load and just kind of dumped off so that they could go pick up the next wave! There was a serious problem with understandably panicked

people crowding the hospital, mostly trying to find out where their loved ones were and if they were OK, and it was three in the morning before we had police here doing crowd control.

“So, if you’re helping Jen work on an improved disaster plan: First, thank you. Second, please, PLEASE reach out to people at other agencies around town and work out some joint-operation protocols for next time.”

***Andrew Steller, Hospital CFO***

“Well, welcome to the House of Gripes!

“Sorry. It’s just that this is kind of a tough stretch since the budget realities we’re facing make everything extra difficult and fraught. Believe me, I understand the importance of planning for the next disaster. It’s just that this is one more thing that our shortfalls are going to make really, really difficult.

“It’s looking pretty likely that we’re going to need to cut our nursing staff pretty soon. Aside from the day-to-day problems that’ll cause, it’ll have a huge impact in a disaster. But it’s worse than that. Impact from a disaster doesn’t just happen in the midst of the crisis. It lingers, just like we saw with the derailment. And we’re going to have a hell of a time in that aftermath phase if we’re dealing with a reduced workforce and reduced resources.

“I mean, think about who gets impacted when something major happens. The impact, especially long-term, doesn’t affect everyone equally. Think about any kind of special-needs population: people who don’t speak English, people with grave health problems who need ongoing care, people with serious economic problems. Those people are going to be affected up-front at least as much, if not more than, the baseline population, but then their recovery is going to be that much harder. That’s a reality that’s been borne out over and over. You see it with health impact, economic impact, even physical impact. If you were a little bit behind before, you’ll be a bit further behind after. We need, as both a moral and legal imperative, to provide equal access and service for all of the different parts of a diverse community. And again, we’ll be facing that situation with reduced capacity.

“Another thing that’s going to be a factor in our post-disaster recovery is government. Does FEMA step in? How long do they stay? Is there a disaster declaration, with some recovery funding? How about at the state level? Who’s coordinating all of this? This sort of thing requires a ton of communication and collaboration with governmental entities at all levels. We like to pretend we’re autonomous in these situations, but we aren’t at all. There’s always a minefield of government funding and health policy to dig through as we try to put ourselves back together.

“Sorry to be the voice of gloom and doom here. This stuff isn’t impossible, but God knows it’s difficult.”

***Anthony Martinez, Director, Facilities***

"Disaster planning, huh?"

"Yeah, it'd be good to have a disaster plan. It's hard to do in real life when you're trapped by the realities of a budget cycle, you know? Whatever we plan, whatever we think is the right thing to do for the long term, there's also this reality that Vila Health HQ expects us to hit certain monetary targets and we have to not only factor that into any idea about disaster planning, but also have to focus on hitting those targets rather than sitting down and, you know, making a plan.

"I try to do things in my own way as much as I can. For critical supplies in the building, I work to build as much of a cushion as the budget process will allow. Same for critical facilities; if we can financially make it work to make something redundant, I do it. It'd be great if this was more formally planned out and not a case of me stashing away a cache of saline solution when I can, but you deal with the reality you have and not the reality you wish you had.

"This is all a response to that derailment, of course. God, that was a mess. I was new to this position then, still trying to clean up the disaster I'd stepped into. My predecessor, well, Ed Murphy was a great golfer but not much of a long-term thinker. Across the board, we had enough supplies for the next week's normal operations and nothing more. Ed had read some book about just-in-time inventory and was all excited about how efficient that could make us. And that kind of efficiency's great if you're running an assembly line, but it doesn't work so well if you have a hospital and something unexpected comes up, like an oil train jumping the tracks and blowing up.

"I'd just started to build up some surplus supplies when that happened, nowhere near enough. We burned through supplies at a terrifying rate that night. Especially bandages and blood plasma. It didn't help that the floor staff were just running around like crazy trying to treat people as they came in, not putting any thought into prioritizing who got what. I'm not blaming them, they were doing the best they could in a tough situation. But it meant that we were out of plasma for a while until Jackie Gifford from Fargo Methodist drove in with a truckload of replacements for us. It was like that all night, making frantic calls to hospitals and agencies all over the area, trying to get supplies. And keeping an eye on the fuel situation for the hospital generator since the fire took out power for half the town.

"God, what a mess. Took us six months to clean all that up. So, disaster planning? Yeah, I'm all for it."

## Final Request from Administrator

Jennifer, the Valley City Hospital Administrator you spoke with earlier, has asked you to present a compelling case to community stakeholders for the proposed disaster recovery plan. She

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requests you use the MAP-IT model, which is a step-by-step, structured plan that can be developed by a coalition that is tailored to a specific community's needs.

The MAP-IT model involves all stakeholders, making for a widely-supported and community-owned effort. It assesses assets as well as needs and looks for ways to use them.

The five steps of the MAP-IT model are:

1. Mobilize individuals and organizations that care about the health of your community into a coalition.
2. Assess the areas of greatest need in your community, as well as the resources and other strengths that you can tap into to address those areas.
3. Plan your approach: start with a vision of where you want to be as a community; then add strategies and action steps to help you achieve that vision.
4. Implement your plan using concrete action steps that can be monitored and will make a difference.
5. Track your progress over time.

In addition to using the MAP-IT model, work up an approach supported by Healthy People 2020 and put it all into a PowerPoint. You can save the PowerPoint deck and the audio of its accompanying presentation at the public library so that the public can access it and see that you're serious. By doing this, you can create a prototype for other local communities near this one, and possibly other facilities in the organization. To ensure that the disaster recovery plan is effective, you can also involve diverse stakeholders, replace guesswork and hunches with data-driven decisions, and create comprehensive, detailed plans that define the roles and responsibilities of disaster recovery team members and outline the criteria to launch the plan into action.