

EVACUATION TRANSPORT OF GENERAL & VULNERABLE POPULATIONS

Lessons and observations from the
Fargo floods of 2009-2010



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Acknowledgements

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Context

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- **Mandatory vs. voluntary evacuation**
 - **2009 – LT Care facilities evacuated**
 - If the general population evacuated, all forms of transport were available
 - But, insurance did not reimburse them
 - No MOU with Valley Bus
 - **2010 – LT Care facilities stay-put**
 - Can you evacuate both vulnerable and general population at the same time?
 - Need an MOU with Valley Bus!

Evacuation types – page 1

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- **Incident-driven evacuation**
 - An incident occurs that makes evacuation necessary
 - Timeline is very short and urgent
 - Unexpected problems are solved “on-the-fly”
 - Occurs while you are fighting the incident
- **Planned evacuation** (Example: mandatory evacuation)
 - A decision is made to evacuate in anticipation of an incident
 - Timeline allows for better planning, staging etc.
 - Find better solutions unexpected problems
 - Occurs prior to the incident

Transport options – page 2

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	Yellow Buses	Coach Buses	Wheelchair-capable	Ambulance
Capacity (Fargo)	5000	500	121 69 more?	13 + 2 bariatric
Seat type	bench	Wrap-around		
Evacuation chairs fit?		No		
Cargo capacity	Limited	Yes	None	
Restrooms	no	yes	no	??
Water operability	18"-24"	6"-12"	12-18" bus 6-12" vans	AmbuBus – otherwise no

Special needs – page 3

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□ A sampling of 388 residents...

#	%	Condition
32	8.2%	MRSA
25	6.4%	Elopement risk
23	5.9%	Hospice
23	5.9%	Oxygen dependent
18	4.6%	Dialysis needed
3	0.8%	Bariatric – 350+
2	0.5%	IVs and equipment

- Plan to have cube vans follow buses with equipment – oxygen tanks, scooters etc.

Special needs and transport type

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- We defined categories, LT staff assigned residents
 - Of 896 residents...

%	Category
67.0%	Ambulatory – can move themselves
13.2%	Need to be transported in their wheelchair
10.2%	Can transfer themselves from wheel chair to seat
7.9%	Cannot transfer themselves from wheelchair to seat
1.8%	Stretcher transfer only

- Transport chosen accordingly

Time needed – page 4

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- In interviews with LT Care managers, they estimate the following times are needed to load/unload transport:
 - 30 residents per hour, assuming
 - Good conditions, appropriate transportation is on scene
 - ... a planned evacuation
 - 15-20 residents per hour, assuming
 - 6" of water, appropriate transportation is on scene
 - ... an incident driven evacuation
 - More than 6" of water, transport becomes limited

Conclusions

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- Given the loading/unloading times + travel time = time transport is no longer available. (A second driver is needed for total times exceeding 8 hours which reduces passenger capacity.)
- There will be a number of people in the general population that will need specialized transport as well
- Do you have the capacity to evacuate vulnerable populations at the same time as the general population? (Incident-driven evacuation)

Closing thoughts...

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- Buses with track-seating
 - Yellow buses with wheelchair lifts
 - Three pair of aluminum rails with bench seats
 - Bench seats can be removed and replaced with wheelchair tie-downs
- Schools may have need for these
 - May be more cost effective than running multiple buses
- ND Department of Health is ordering (or has) some

Better preparations

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- Categories established so NDITA, Emergency Operations Center (EOC) and bus contractors have a common vocabulary
- Transport resources on a data base
 - Fields to track status of each unit
 - Can simply be updated when needed
 - GPS equipment added to all Valley Bus equipment
- Will invite a dispatcher to EOC if needed
- Better coordination with the Department of Emergency Services for all populations

Thank you

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Questions?



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