CHAPTER 10

Access & Functional Needs

New here? Ready, Set, Ready is a 10-minute starting point: an honest assessment, one gap closed for real, then a map for using the rest of this site. Once something's actually happened, Surviving picks up where this chapter leaves off, organized by chronology instead of category. Curious how Tier, Stage, and Phase relate? See the Glossary.

Why This Category Matters

Access & Functional Needs (AFN) is the category most likely to make the difference between life and death for a specific household member, precisely because generic advice applies to them the least. A stockpile of stored water helps everyone; a wheelchair, an insulin pump, or a hearing loss doesn't average out. The plan has to be built around the specific person, not a generic "household of four, generally healthy adults" assumption the rest of this manual leans on more comfortably.

This chapter draws on established sources (the National Kidney Foundation, medical device manufacturers, and Utah's own Be Ready Utah access-and-functional-needs program) but it is still general guidance. For any household member on a specific medical device, medication, or therapy, the specific emergency plan for that condition should come from their own doctor, dialysis center, or durable medical equipment (DME) supplier. Use this chapter to organize that conversation, not to replace it.

Stored vs. Produced (a Limited Fit Here)

The same stored-versus-produced shift that runs through this manual's other chapters applies here too, with a real limit worth naming directly. Tier 1 is Stored: surviving the first outage using what's already on hand. Tier 2 is the transition: the disruption has outlasted Tier 1's stored buffer, and the household shifts to sustaining daily adaptive living rather than just getting through an emergency. Tier 3 is where most chapters reach a clean Produced stage, producing what's needed; this chapter can't fully get there, since a specific medication or specialized medical device generally can't be produced at home the way food or fuel can. Tier 3 here means building and repairing adaptive equipment from available materials where genuinely possible, and formal mutual-aid arrangements so care doesn't depend on any single caregiver or piece of equipment lasting indefinitely, community redundancy standing in for production. Tier 4 extends that same community-based approach further. This is the one chapter in the manual where "Produced" means distributing dependency, not eliminating it.

Tier 1: Short-to-Medium Term (Hours – 14 Days)

Goal: Stored: using what's already on hand. Maintain continuity of essential medical/adaptive services and ensure safe evacuation if required. Focus on immediate needs for mobility, communication, and medical equipment.

Tier 1 is about surviving the first outage or disruption using what's already on hand, and making sure any household member with a mobility, sensory, medical, or cognitive need is included in every other chapter's Tier 1 plan, not handled as an afterthought.

Skills to Build

- **Medical Equipment Power Continuity:** Know, in writing, exactly what each powered medical device needs during an outage, and get that plan from the device's own manufacturer or your DME supplier, not general advice. See the equipment-specific guidance below for CPAP, oxygen, and dialysis, which differ significantly from each other, and the Backup Power for Medical Equipment & Caregiving skill guide for the sizing math itself.
- **Manual Adaptive Equipment:** Know how to use and transition to non-electric mobility equipment (manual wheelchair, manual hospital bed crank, non-powered walker) if a powered version becomes unusable.

- **Evacuation Assistance:** Plan, specifically and in advance, how any household member with a mobility impairment will actually be moved (down stairs, into a vehicle, to a shelter) including who does it and what equipment is needed. This isn't solvable in the moment.
- **Communication Alternatives:** For any household member who is Deaf, hard of hearing, or non-verbal, establish alternatives before they're needed: basic ASL phrases, written phrase cards, or a TTY device. See the Communication chapter for the broader household communication plan this should plug into.

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The **Access & Functional Needs Addendum** builds these into real, tested competency.

For the hands-on how-to:

Backup Power for Medical Equipment & Caregiving | DIY Assistive Equipment Fabrication | Home Accessibility Modifications

Tech & Equipment

- **Backup Power for Medical Devices:** A dedicated battery or inverter sized to the specific device's actual power draw. See the equipment-specific notes below, since "backup power" means something very different for a CPAP than for an oxygen concentrator. See the Backup Power for Medical Equipment & Caregiving skill guide for the full sizing approach.
- **Manual Medical Tools:** Non-electric versions of essential equipment where they genuinely exist: a manual wheelchair as backup to a power chair, a manual hospital bed crank. Note that not every device has a real manual equivalent; see below.
- **Assistive Communication:** A portable TTY device, large-print notepad, or picture/communication board, matched to the specific household member's actual needs.

Materials & Supplies

Item	Quantity / Spec	Notes
Utah Special Needs Registry	Voluntary registration	A real, confidential state program. Registering shares your household's specific needs with emergency responders in advance so they can plan for you. It does not guarantee rescue priority, but it means responders know you're there. Register through Be Ready Utah or your county emergency management office.
Extra medications	30-day supply, disability-related	Same FIFO rotation principle as the Medical Care chapter, and the same insurance-buffer conversation to have with a prescriber in advance.
Caregiver plan	Named backup caregiver, in writing	A trusted neighbor or friend who knows the specific care needs and can act if the primary caregiver is incapacitated or unreachable. See the Backup Power for Medical Equipment & Caregiving skill guide for formalizing this.
Personal items	Spare glasses, hearing aid batteries, dentures, prosthetic components, insulin	Small items that are easy to forget in a general kit but can be genuinely disabling to lose.

Equipment-Specific Guidance: CPAP & Oxygen

CPAP machines and oxygen concentrators both require continuous power and have no true “manual mode.” For CPAP, a power station or battery pack sized for at least one full night’s runtime is the standard backup; confirm your specific machine’s DC/battery compatibility with its manufacturer rather than assuming. For oxygen concentrators, internal batteries typically run only 30 minutes to 2 hours depending on flow rate, not enough for an extended outage, and most home concentrators need roughly 1,000+ watts from a power station or generator to run continuously (cross-reference the Energy & Heat chapter’s guidance on sizing backup power to actual device wattage). The genuinely power-free backup for oxygen is a prescribed backup cylinder (compressed or liquid oxygen tank), not the concentrator itself; ask your DME supplier about keeping one on hand. Separately, call your electric utility and ask about their medical-equipment priority reconnection program; most utilities maintain one, and registering in advance is what makes it useful.

WARNING

Equipment-Specific Guidance: Dialysis

This differs by dialysis type, and getting it right matters. Do not treat this as a “manual operation” problem the way a wheelchair is. In-center hemodialysis patients cannot dialyze at home; the emergency plan is knowing the location and contact information for at least one alternate dialysis center in advance, and having transportation arranged. Home hemodialysis patients should follow their home training staff’s specific stop-dialysis protocol during a power outage and call their care team immediately; a hemodialysis machine cannot be operated manually or without power. Peritoneal dialysis (PD) patients on an automated cycler (APD/CCPD) can switch to manual CAPD exchanges during an outage if already trained to do so; this is a real, valid bridge, but the technique needs to be learned in advance from your care team, not attempted for the first time during an emergency. Keep at least a 2-week supply of PD supplies with 7 days specifically set aside for manual exchange, and pack an emergency bag with your written dialysis orders and medication list. If manual exchange isn’t possible, dialysis centers typically provide a short-term “emergency diet” (limiting potassium and fluids) to bridge until dialysis resumes; get those specific instructions from your nephrology team now, not during the emergency.

WARNING

Equipment-Specific Guidance: Cold-Chain Medications (Insulin and Others)

Unopened/reserve insulin needs true refrigeration (36–46°F per FDA guidance) to maintain its full shelf life. In-use insulin is more forgiving than most people realize: most formulations tolerate room temperature below 86°F for roughly 28 days (some specific products up to 56 days; check the specific product’s labeling), which is exactly why a room-temperature power outage isn’t automatically an emergency for insulin already in use. What insulin cannot tolerate is freezing; direct contact with ice permanently damages it, so always buffer it from ice packs with a towel or its own packaging. A FRIO-style cooling wallet (evaporative cooling, no power or ice required, roughly 45 hours of cooling per soak) is a genuine no-power option for in-use insulin specifically, not a substitute for refrigerating reserve stock. During a power outage: a closed refrigerator holds safe temperature for about 4 hours; a cooler with ice holds it 24–48 hours before the ice needs replacing; an unplugged freezer with insulin wrapped (never touching a frozen surface directly) can hold safe temperature up to 48 hours. This same cold-chain logic applies to other refrigerated medications; check each one’s specific manufacturer guidance rather than assuming insulin’s numbers apply universally.

Quick Checklist

- [ ] Utah Special Needs Registry registration completed, if applicable

- [ ] Written, device-specific power/backup plan obtained from each device's manufacturer or DME supplier
- [ ] Electric utility notified of medical equipment dependence; priority reconnection program confirmed
- [ ] For dialysis-dependent household members: written plan obtained from their specific care team (in-center, home HD, or PD)
- [ ] For insulin or other cold-chain medications: refrigeration backup plan (cooler+ice, FRIO wallet, or unplugged freezer) known and supplies on hand
- [ ] 30-day supply of disability-related medications, rotated on the same schedule as other household meds
- [ ] Named backup caregiver identified and briefed on specific care needs
- [ ] Spare glasses, hearing aid batteries, dentures, and prosthetic components stocked
- [ ] Evacuation plan specifically covers how each household member with a mobility impairment will be moved
- [ ] Communication alternatives (ASL basics, phrase cards, TTY) in place for any Deaf/hard-of-hearing/non-verbal household member
- [ ] Practiced: backup power for each powered medical device tested for one full night before it's needed

Tier 2: Extended (2 Weeks – 3 Months)

Goal: *The stored-to-produced transition, the stored buffer runs out. Sustain adaptive needs when supply chains are broken and professional services are unavailable. Focus on self-reliance for daily living.*

Tier 2 assumes the outage or disruption has outlasted Tier 1's stored buffer, and that home health aides, DME suppliers, and routine medical appointments may not be reliably available. The household shifts from "get through the emergency" to "sustain daily adaptive living" for an extended, uncertain period.

Skills to Build

- **Home Modification:** Build temporary ramps, widen doorways where feasible, or install grab bars: practical, physical changes that reduce daily reliance on assistance that may not be available. See the Home Accessibility Modifications skill guide for real ramp slope, grab bar mounting, and doorway-widening technique.
- **Alternative Hygiene:** Maintain personal care routines with limited water and mobility. Plan specific techniques in advance with input from the person's own routine, not a generic assumption.
- **Community Support:** Coordinate with neighbors for tasks beyond one person's physical capability. This is the household-level version of the mutual aid networks built out further in Tier 4 and in other chapters.
- **Basic Equipment Repair:** Learn simple maintenance on wheelchairs, hearing aids, or prosthetics (tire changes, battery contacts, basic adjustments) so a minor failure doesn't become a major one.

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Tech & Equipment

- **Solar Power Station:** Sized large enough to run medical devices and charge adaptive tools on an ongoing basis. Cross-reference the Energy & Heat chapter's Tier 2 sizing guidance, using the actual wattage of the specific devices this household depends on.
- **Manual Tools:** Hand-cranked devices for mixing food, pumping water, or other daily tasks that reduce dependence on powered equipment.
- **Communication Aids:** Pre-written phrase cards, picture boards, or a charged electronic communication device, matched to ongoing (not just emergency-moment) daily communication needs.

Materials & Supplies

Item	Quantity / Spec	Notes
Adaptive utensils	Specialized eating/cutting tools	For limited dexterity; inexpensive and easy to overlook until they're needed.
Mobility aid parts	Spare wheels, batteries, repair kits	For wheelchairs/scooters, matched to the specific make and model already in use.
Incontinence supplies	3-month supply	Adult diapers, pads, hygiene wipes; plan quantity based on actual daily use, not a generic estimate.
Comfort items	Extra pillows, blankets, seating aids	For prolonged sitting or altered routines; genuinely affects quality of life over a multi-week disruption.

Northern Utah Note

Utah’s Division of Services for People with Disabilities (DSPD) and the Utah Parent Center both maintain emergency preparedness resources specifically for Utah families; worth reviewing directly rather than relying only on this manual, since they’re updated more frequently and address state-specific programs and benefits this manual doesn’t track.

Quick Checklist

- [ ] Home modifications (ramps, grab bars, doorway clearance) assessed and completed where feasible
- [ ] Solar power station sized to actual medical/adaptive device wattage
- [ ] Spare mobility-aid parts (wheels, batteries) matched to specific equipment on hand
- [ ] 3-month incontinence supply stocked, sized to actual use
- [ ] Basic equipment repair skills practiced by at least one household member
- [ ] Neighbor/community support network identified for tasks beyond household capability
- [ ] Practiced: household has run at least one Tier 2 drill using only manual tools and solar power for adaptive needs

Tier 3: Permanent (Indefinite)

Goal: Produced (community-dependent): building/repairing what's possible and formalizing mutual aid for what isn't. Build long-term independence within a community. Focus on sustainable adaptive living and mutual aid.

Tier 3 assumes no return to normal medical supply chains or professional services for the foreseeable future. The focus shifts to building and maintaining adaptive capability locally, and to formal mutual-aid arrangements that don't depend on any single caregiver or piece of equipment lasting indefinitely.

Skills to Build

- **Assistive Technology Fabrication:** Building or modifying tools from available materials to replace or repair adaptive equipment: a real skill, best learned by working with an occupational therapist or assistive-tech specialist in advance rather than improvised from scratch. See the DIY Assistive Equipment Fabrication skill guide for real organizations that already do this and where DIY stops and professional help starts.
- **Mutual Aid Coordination:** Organizing community support for tasks that genuinely require multiple people: transfers, home modifications, or sustained caregiving.
- **Non-Pharmaceutical Symptom Management:** For pain or inflammation management when pharmaceuticals are unavailable, options like willow bark (a natural precursor to aspirin's active compound) exist, but treat this as a real medical topic. Dosing, drug interactions, and contraindications for the specific person's other conditions matter, and this should build on the Medical Care chapter's Herbal Medicine & the Home Apothecary skill guide rather than replace an actual prescribed regimen wherever one is available.
- **Long-Term Home Accessibility:** Permanent modifications for independent living, planned and built as durable infrastructure rather than temporary workarounds. See the Home Accessibility Modifications skill guide for the same technique applied as a lasting build rather than a temporary fix.

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Home Accessibility Modifications

Tech & Equipment

- **Custom Fabrication Tools:** Hand tools, a 3D printer if feasible, or basic woodshop capability for making or modifying adaptive devices.
- **Community Communication Systems:** A shared sign language or gesture system usable across the community, not just within one household, for non-verbal communication in a group setting.
- **Reference Library:** Physical books on disability management, herbal remedies, and assistive technology, the same principle as the Medical Care chapter's medical library.

Materials & Supplies

Item	Quantity / Spec	Notes
Raw materials	Wood, metal, fabric, rubber	For making or modifying adaptive tools as they wear out or break.
Herbal remedies	Chamomile, valerian, willow bark, etc.	For pain/inflammation management under real medical understanding, not as a casual substitute; see the Herbal Medicine & the Home Apothecary skill guide.
Community pact	Formalized mutual-aid agreement	Specifically covering mobility assistance, cooking, and personal care; build on the community pacts described in the Security & Self-Defense and Medical Care chapters.
Barter items	Adaptive equipment parts, medical supplies, specialized tools	High value in a community without other medical/adaptive equipment access.

Northern Utah Note

USU (Utah State University) has assistive technology and disability research programs that publish accessible, practical resources, a stronger long-term reference than generic national material for anything specific to adapting to Utah's climate and terrain (ramps and mobility surfaces in snow, for instance, are a genuinely different problem than in a milder climate).

Quick Checklist

- [ ] Assistive-tech fabrication skills built with input from an occupational therapist or specialist
- [ ] Community mutual-aid pact formalized, specifically covering mobility/care tasks
- [ ] Reference library on disability management and assistive tech assembled
- [ ] Raw materials for tool/equipment fabrication and repair stocked
- [ ] Herbal remedy use, if any, understood in the context of the specific person's other conditions and medications
- [ ] Permanent home accessibility modifications completed
- [ ] Practiced: at least one adaptive tool successfully fabricated or repaired from raw materials

Tier 4: Sustainable Community

Goal: *Produced (community-dependent), at full scale. Build a community-wide inclusive response system so no household with access or functional needs depends on a single caregiver, device, or neighbor to survive and thrive.*

A single household's Tier 3 plan still depends heavily on one or two caregivers and one set of adaptive equipment. Illness, injury, or loss of that caregiver is a severe, sometimes life-threatening gap. Tier 4 spreads that support across the community: more trained caregivers, shared equipment, and a system that actively checks on isolated members rather than assuming someone will notice if they're struggling.

Start with the same CMIST framework this chapter opens with, applied at neighborhood scale and with each person's own consent: which neighbors actually have communication, medical, independence, supervision, or transportation needs a community network could realistically help with, not a generic sense that "some people probably need help." Then ask honestly how much real capacity exists to meet it: how many neighbors are actually willing to train as backup caregivers, is there a genuine space and tool set for a shared fabrication workshop, does anyone have spare mobility aids or communication devices worth pooling. A network sized past what the neighborhood can actually sustain creates the same false confidence an unstaffed watch rotation does elsewhere in this book.

Choosing an Approach

Three real models fit different circumstances.

Approach	What it is	Fits when
Informal check-in network	Neighbors checking on isolated or vulnerable members on a regular basis, no formal training or shared equipment	A small, already-trusted group, or a first step before anything more formal
Trained caregiver and equipment pool	Multiple neighbors trained in specific care routines with consent, a shared stock of spare mobility aids and adaptive tools	Real willing volunteers and genuine equipment to pool, not just goodwill
Formal partnership	Active coordination with a local disability services organization and your state's voluntary medical-needs registry	Sustained, serious need, and a neighborhood ready to build accessibility into its own shelter and communication plans from the start

WARNING

A Trained Neighbor Isn't a Substitute for Professional Care, and Paid Help Changes the Rules

A volunteer backup caregiver can learn a specific transfer technique or medication routine with real value, but the same hard limits apply at community scale that apply to one household: in-center hemodialysis still can’t be done at home by anyone, trained or not, and a stationary oxygen concentrator still can’t run indefinitely off a shared battery bank. A community network’s real job is distributing the dependency this chapter opened with, not pretending it can be eliminated. Separately, if anyone in the network is ever paid for caregiving rather than helping as a neighbor, most states regulate that as a licensed home-care agency; check your own state’s rule before informal help becomes a paid arrangement.

Skills to Build

- **Becoming a Professional and Teaching Others:** The Certified DME Specialist credential is a genuine national certification for durable medical equipment repair, troubleshooting, and home inspection, covering oxygen equipment, transfer systems, enteral feeding supplies, and wound care equipment. It requires a high school diploma or equivalent plus a minimum of 500 hours of relevant experience, and represents the real professional ceiling for the equipment side of this chapter. Volunteering with a disability services organization in your area builds real community-scale caregiving capacity and connects you to people who may need a trained backup caregiver. Difficulty: High. Training: 500+ hours of relevant experience. Cost: $$-$$$.

- **Distributed Caregiving:** Train more than one person in the community on the specific care needs of vulnerable neighbors (with their consent and involvement), the same redundancy principle used for medical responders and radio operators in earlier chapters, applied to ongoing personal care.
- **Wellness-Check Systems:** Establish a regular, structured check-in system for community members who are isolated, elderly, or have significant care needs. Don't rely on someone happening to notice an absence.
- **Inclusive Community Planning:** Ensure community-level plans (shelter, evacuation, communication) are built with input from AFN community members from the start, not retrofitted afterward. Accessibility designed in is far more effective than accessibility added on.
- **Community Equipment Fabrication & Repair:** Extend Tier 3's individual fabrication skill to a shared community capability, so adaptive equipment repair doesn't depend on any single household's tools or expertise.

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Tech & Equipment

- **Shared Adaptive Equipment Cache:** A community-level stock of spare mobility aids, communication devices, and adaptive tools beyond what any single household could reasonably stock alone.
- **Accessible Community Shelter Design:** Any shared shelter space (see the Shelter & Structural Safety chapter's Tier 4 guest/shelter capacity) built or retrofitted with genuine accessibility (ramps, clear pathways, and quiet/low-stimulus space) from the start.
- **Community Fabrication Workshop:** A shared space and tool set for building and repairing adaptive equipment at scale, building on Tier 3's individual capability.

- **Redundant Communication Access:** Ensure the community's Tier 4 communication systems (see the Communication chapter) include AFN-accessible formats: visual alerting for Deaf/hard-of-hearing members, text-based options, and staffed relay support where needed.

Materials & Supplies

Item	Quantity / Spec	Notes
Community adaptive equipment reserve	Spare mobility aids, communication devices	Sized for the neighborhood, with clear rules for access and return.
Trained-caregiver roster	Names, specific skills, and availability	Same model as the medical responder roster in the Medical Care chapter.
Wellness-check schedule	Documented, regular check-in assignments	Simple and current; the point is making sure no one is missed.
Shared reference library	Disability management, assistive tech, herbal remedy references	Distributed across multiple households for redundancy.

Northern Utah Note

The CMIST framework (Communication, Medical care, Independence, Supervision, Transportation) is the actual planning model Utah's own public health system uses for AFN emergency planning. Using the same framework at a neighborhood level, rather than inventing a new one, makes it far easier to coordinate with official response if and when that becomes available again.

Quick Checklist

- [ ] More than one trained caregiver per household with significant AFN needs, community-wide
- [ ] Structured wellness-check system established and staffed
- [ ] Community shelter/evacuation plans built with direct AFN community input
- [ ] Shared adaptive equipment cache and community fabrication workshop established
- [ ] Communication systems include accessible formats (visual, text-based, relay support)
- [ ] Paid-vs-volunteer caregiving line checked against your state's home-care licensing rule

- [ ] Network sized against real willing caregiver capacity, not just goodwill
- [ ] Practiced: a full community wellness-check and inclusive-shelter drill completed

At a Glance: Access & Functional Needs Across All Tiers

A single-page reference for planning purposes. This does not replace the detailed guidance above, and it does not replace a plan built with the specific person's own care team; use it to see how the plan scales, not as a standalone checklist.

Tier	Mode	Duration	Individual Plan Focus	Community/Support Focus
Tier 1	Stored	Hours – 14 days	Device-specific backup power, meds, evacuation plan	Named backup caregiver, Special Needs Registry
Tier 2	Transition	2 weeks – 3 months	Home modifications, sustained adaptive supplies	Neighbor coordination for daily tasks
Tier 3	Produced (community)	Indefinite	Equipment fabrication/repair, long-term accessibility	Formal mutual-aid pact for care and mobility
Tier 4	Produced (community)	Sustainable community	N/A: fully community-integrated	Distributed caregiving, wellness checks, inclusive design