

# Making the Plan & Writing the Report

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# Objectives

- ▶ Describe the farm and health overview
- ▶ Describe a barrier to employment
- ▶ Explain an assistive technology device with various options and specific recommendations



# The Service Delivery Cycle

- ▶ Referral finding appropriate candidates for AT interventions by phone interview
- ▶ AT Assessment and evaluation of farm site with rehabilitation professionals
- ▶ **Make a plan** listing outcome measures and recommending AT interventions
- ▶ Implement the plan with the farmer, funders, AT suppliers, fabricators
- ▶ Follow-up to make sure AT is functioning as intended and outcome measures are met
- ▶ Follow along to revisit steps 2,3,4 as needed



# The Service Delivery Cycle: *Make a Plan* ATP or rehabilitation professional role.

1. Research and consider all available intervention options
2. Select the intervention that best meets the outcome measures
3. Write your recommendation report



# SMILE!

## **Prioritize accommodations based on**

- Safety, both yours and your co-workers’,
- Money, increased profit potential,
- Independence doing the most important farm tasks,
- Liking the tasks you do, and
- Expense to make the improvements.



# Prioritize

Farm site Recommendation	Estimated Cost	Frequency	Longevity
	\$ (for quantity shown)	Uses per year	useful years
Market Transport Trailer	\$5,000	1000+	15
Electric Beehive Lifter	\$2800	1000+	10
Display Carts	\$2900	1000+	10
Stock Carts	\$900	1000+	10
Pallet Truck	\$900	1000+	20
All Terrain Elevator Seat	\$300	700	10
Sit Stand Shop Stool	\$450	1000+	20
Material Lift Dolly	\$1500	1000+	20
Bucket Dolly	\$300	1000+	20
Bucket Dumper	\$100	300	20
Deckmate Truck Stairs	\$650	230	20



## “Don’t Reinvent the Wheel”

Resources help us know current information on AT products and services.

We can be aware of possible interventions that will best meet the farmer’s needs.



# Funding AT

- ▶ Farmer DIY inventions and self pay
- ▶ *AgrAbility cannot provide direct funding or equipment*
- ▶ State Vocational Rehabilitation (VR)
- ▶ Auto Insurance, medicare, medicaid
- ▶ Veterans Administration (VA)
- ▶ Non-profit organizations, Foundations, Crowd funding





# Vocational Rehabilitation Services (VR)

<http://www.agrability.org/contact-lists/>

- ▶ A person must have a disability and require VR services to prepare for working, find a job, or remain employed
- ▶ **Eligibility is based on diagnosed medical conditions causing functional limitations that are barriers to a person's earning minimum wage 1/2 time**
- ▶ Assessment and Individual Plan for Employment (IPE) describing barriers to employment, interventions, and providers with written price quotes for services
- ▶ Informed choice so the farmer can make good decisions.
- ▶ Implement the plan by purchasing AT and services.
- ▶ Follow up services to confirm continued successful employment using the AT to accomplish necessary tasks



## Don't forget who we're serving

The farmers with disabilities are the primary team members. They have the right to know all about the available AT and services, advocacy, independence, and due process for disagreement and opinions about the AT!



# Written Justifications/Medical Necessity OT/PT/ATP

- ▶ All your notes and pictures from the AT assessment are treasures for this detailed demonstration of need!
- ▶ High-cost justifications will be scrutinized and need clear background information and description of need
- ▶ Understand the policies of the funding agency and utilize terminology they are familiar with
- ▶ Medical documentation and income documentation are commonly required



## LETTER OF MEDICAL NECESSITY

Client –

DOB –

Date – 10/31/2023

Therapist – Kimberly Jeroue, OTR/L – EastersealsMORC Inc.

Vendor – Greg Moorehouse, ATP National Seating and Mobility

██████ is a -year-male with a diagnosis of Spastic Quadriplegic Cerebral Palsy (G80.0), Dependence on Wheelchair (Z99.3), Contractures (M24.50) Pressure Ulcer of unspecified buttock, unspecified stage (L89.309). ██████ is unable to ambulate and fully relies on his wheelchair for all mobility. He resides in an assisted living home with 24-hour staff support. He cannot transfer to surfaces and relies on staff to move in and out of bed and wheelchair. He presents with extremely high extensor tone that affects his ability to manage his body effectively. ██████ has limitations of his upper and lower extremities. He has almost no functional use of his upper and lower extremities and is in tonal patterns for all movement observed. Left UE is fully contracted flexion pattern at shoulder elbow, wrist, and hand with zero movement. Right UE has very poor active movement. He used to use this arm to drive his power



in his seating more the 12 hours per day.

His current wheelchair and seating system is over 5 years old but no longer supports him. Due to his high tone the seat and back are in poor condition with diminished therapeutic supports. The seat no longer adequately supports the changes in his physical status. The padding on the lap belt is broken down, and the chair is worn, and the casters are loose. The tilt is broken, and the seat back was loosened due to his high tone. His legs no longer can flex at the knees to meet the current foot plates. His legs are vulnerable to injury.

The following wheelchair and seating system is recommended to support [REDACTED] and his physical limitations, keep him safe from injury and prevent any further medical conditions such as worsening physical status or skin breakdown.

- OBSS Custom Molded Seat: Necessary to provide proper seat support. Supporting his pelvis and femurs will distribute pressure properly diminishing risk of skin breakdown with the pressure reducing foam. This will allow 12+ hours in the wheelchair.
- OBSS Custom Molded Back: Necessary to properly position [REDACTED] upright. He needs external support so he can see and engage with others, to allow proper feeding position throughout the day including in the community and for safety and adequate support along back and trunk during transport.
- Bodypoint Hip belt: Padded lap belt that will be placed to keep [REDACTED] back in his wheelchair in a safe and functional position as he cannot maintain his position without external support
- Dvnaform Shoulder harness: Necessary to keep [REDACTED] back in the proper position against the back of the seat. He



# Farm and Health Overview

- ▶ 1 to 2 pages with pictures of the farm
- ▶ Describe farm business, general systems, equipment, acres and livestock numbers, annual sales
- ▶ Quote the medical documents provided with diagnosis, resulting functional limitations, list barriers to employment caused by the conditions



# Farm Overview (case study)

- ▶ Mary Brown is a 23-year-old beekeeper from Shelby County. Her goal is for her beekeeping to be her full-time occupation and earn a living. She has 240 hives and also helps a commercial beekeeper, Greg Wilson in her spare time. She attends 40 craft shows annually and 3 farmers markets per week to sell her honey. Her husband is mechanical and helps her with equipment but is uninterested in beekeeping. Her mother and friends help her with building hive bodies, selling at markets, and setting up equipment. Mary has a honey shed with her extracting and bottling equipment at her home. Her hives are in 25 locations around Shelby County in the summer, and they are wintered in Alabama. She travels to Alabama monthly in the winter and spring to manage the hives and then split her hives and create nuc's (small starter hives) to sell. She has relied heavily on her relationship with Greg to borrow heavy equipment for placing hives in the field and arranging transportation to Alabama.



# Mary working her apiary and selling her honey





## Health Overview (case study)

- ▶ In 2020 Mary sustained a severe back injury from a tractor rollover farm accident. The vertebrae in her back did not heal properly. After several major surgeries to fix her back, there are still issues and it may require more surgery. Her physical capacity assessment form completed on 12/21/23 reports functional limitations of never lifting over 20 pounds, squat/crawl/kneel or climb. She can occasionally walk, bend/stoop, climb stairs, pull and push. These limitations cause barriers to employment lifting and carrying honey to sales venues, kneeling and crawling to split hives, lifting honey supers when extracting, lifting and carrying honey to the storage garage, lifting and carrying honey to the packing and labeling rooms, and lifting hives for inspections, treatments, and honey harvest in the field.



# Physical Abilities Needed for Farming

- Mobility,
- walking long distances,
- climbing,
- standing,
- standing up,
- stooping,
- bending,
- crawling,
- lifting,
- carrying,
- pushing,

- pulling,
- twisting,
- range of motion,
- reaching,
- grasping,
- repetition,
- strength,
- endurance,
- fine motor control,
- long duration tasks,
- operating equipment,

- decision making,
- reading,
- vision,
- hearing,
- breathing,
- balance, and
- memory....

are functional abilities needed  
for farmers to do their work.



# Specific Recommendation Pages

- ▶ Barrier to Employment: Why a diagnosed medical condition prevents the completion of a necessary farm task - video of farmer attempting the task
- ▶ AT Description: How does this AT overcome the barrier, What is the AT, How does it work?
- ▶ Recommendation: Specific make, model, part number, vendor, price, installation specifications, delivery



# Barrier to Employment

Explain to why a task that the farmer is struggling with matters. Include a picture of the problem. Use the farm description.

- ▶ Is this task extremely dangerous and likely to cause injury?
- ▶ Is this task essential to the financial health of the farm?
- ▶ Why is it essential that the farmer do the task?
- ▶ Are there no other workers skilled in that area?
- ▶ Can the task be hired out to a custom farmer?
- ▶ How frequently is the task done?
- ▶ Is this the prime task that the farmer enjoys?
- ▶ How complicated and costly is this task to accommodate?
- ▶ Is the cost of accommodation reasonable for the ability gained?



# Barrier to Employment

Explain how the functional limitations directly impair the completion of that task based on the medical overview.

- ▶ How does the diagnosis impact the task?
- ▶ Has the farmer reached maximum medical improvement?
- ▶ Is the diagnosis chronic, stable, improving, regressing?
- ▶ Is the medical condition a problem every day?
- ▶ Do environmental conditions change the limitation?
  - ▶ Heat/cold/humidity/sunlight/dim light
  - ▶ Dust or wind
- ▶ Do medications control the symptoms?



## Barrier to Employment (case study)

- ▶ Mary lifts 55-pound crates of honey and reaches into her minivan to stack them for transport to sales venues. She lifts and carries hive equipment and tools and reaches into the pickup truck bed to stack them for transport to Alabama. Mary lifts and carries 55-pound buckets of honey from the honey house across soft ground to the storage garage. She is regularly lifting, carrying, and loading honey/displays to sales venues. None of these activities are approved by her physical capacity assessment dated 12/21/23.



# AT Description

- ▶ **OUTCOME MEASURE:** How will the AT overcome the barrier? What will the farmer be able to do? When?
- ▶ How does it work? Is it emerging technology?
- ▶ **OUTCOME MEASURE:** Will the AT improve safety?
- ▶ Discuss various AT options and describe why is this concept is the best for this specific farmer.
- ▶ **OUTCOME MEASURE:** Discuss AT durability and the cost of maintenance, repairs, and replacement
- ▶ **OUTCOME MEASURE:** Discuss portability, flexibility of use, multiple benefits for farm tasks.
- ▶ Explain how the cost of the AT is proportional to the ability gained and include a picture of the AT



# Assistive Technology (case study)

- ▶ An enclosed market transport trailer with a tailgate ramp will enable Mary to haul materials and set up sales displays without bending, lifting, twisting, and carrying.
- ▶ **Ethics: is this AT or a business expansion?**
- ▶ This assistive technology will address the first three disability task stages: honey sales, light duty apiary work, and honey processing.
- ▶ Mary will be able to safely load and transport honey to sale venues by July 2024.





## Assistive Technology (case study) continued

- ▶ A market transport trailer is lower to the ground than a pickup truck so loads on carts can be rolled up a tailgate ramp instead of lifted and carried by hand. Stock carts and display carts loaded with honey and other display materials can be rolled up the ramp into the trailer. The same carts can be rolled back down the ramp when at the sales venue. Pallets of honey buckets and other materials during honey processing can be set on the trailer tailgate, then rolled into place in the trailer with a pallet jack without any bending or lifting. Hive equipment can be placed on stock carts and rolled in and out of the trailer for transport while doing splits and apiary work in Alabama.



## Assistive Technology (case study) continued

- ▶ Having a trailer with tailgate ramp and rolling carts for material handling reduces lifting and carrying by 89% from the honey house to market display. Once the produce is placed on the racks, it is never handled again until the consumer carries it away. This will be more safe than heavy lifting and Mary will be able to independently load and unload at the venues where she sells.



# AT Recommendation

- Make, model, part number
- Suppliers and comparable price quotes
- Delivery cost
- Installation cost
- Fabrication and modification cost
- Follow up repairs, maintenance, parts suppliers for future.
- Warranty



## AT Recommendation (case study)

- ▶ I recommend a 6X12 foot enclosed trailer with at least 72-inch high ceiling so Mary can stand up in it. It will be low-profile with tailgate ramp to enable Mary to use a two-wheel dolly and carts to roll honey and racks on and off the trailer without lifting.
- ▶ **6X12 ENCLOSED TRAILER VENDORS:**
- ▶ **Howell Auto Sales, Peter Jeffers,**
- ▶ **Sigma Vendor #VC01894**
- ▶ **63 Schroeder Park Drive**



# Assistive Technology Suppliers

You must have a clear recommendation before seeking comparable suppliers!

- ▶ Suppliers comparing apples to apples
- ▶ Suppliers should use their own methods if it meets the AT need - they help expand the AT options
- ▶ If suppliers are using drastically different methods, then more discussion with the client to choose which option is best
- ▶ If all choices would work equally well, choose low cost
- ▶ Consider location for repairs and warranty work
- ▶ Reliable? Reputation? Relationship with farmer? Insured?

# Assistive Technology Follow-up

- ▶ ***Rehabilitation Technical Services: Job Site Monitoring***
- ▶ **DESCRIPTION:** Mary's assistive technology needs to be delivered specifically for her abilities by the suppliers in a timely manner. Follow up is needed with suppliers to make sure the correct items are delivered and functioning as intended. The process is:
  - ▶ Rehabilitation counselor will send the authorizations with a copy of the written vendor quote to the vendor.
  - ▶ The rehabilitation counselor will email a list of all suppliers and copy of authorizations to Foresight services.
  - ▶ Foresight Services will correspond with the suppliers to make sure they understand the authorization and assistive technology to be delivered.
  - ▶ Foresight Services will correspond with the farmer regularly and visit the farm when the AT is delivered to confirm all is working properly.
  - ▶ A job site monitoring report will be provided to Rehabilitation Services confirming the AT is delivered and working. A confirmation of continued gainful employment on the farm will be provided to MRS as the farmer has documented income.



# The Service Delivery Cycle

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# Implementation - ATP role

Praise God the plan was reviewed and accepted so funding is now authorized!

- ▶ Notify approved suppliers that a purchase order from the funder is coming and contact the farmer to arrange delivery
- ▶ Thank suppliers who were not selected for their time
- ▶ Notify the farmers that the AT will be ordered and they should contact the suppliers to approve delivery time
- ▶ Job site monitoring visit the farm to assist or make sure AT is set up and working correctly
- ▶ Train the farmer on proper use of the AT
- ▶ Follow up with suppliers if there are any problems



# Implementation (case study)

- ▶ *Assistive Technology: Market Transport Trailer – confirmed delivered 5/17/24*
- ▶ **A 6X12 foot enclosed trailer with at 72-inch high ceiling has been provided and is in use so Mary can stand up in it. It is low-profile with tailgate ramp to enable Mary to use a two-wheel dolly and carts to roll honey and racks on and off the trailer without lifting. Her family has installed racks and tie-down hooks in the trailer to keep cargo secure and organized.**



## Implementation (case study) continued

It enables Mary to haul materials and set up sales displays without bending, lifting, twisting, and carrying. It accommodates honey sales, light duty apiary work, and honey processing. Her market transport trailer is lower to the ground than a pickup truck so loads on carts can be rolled up a tailgate ramp instead of lifted and carried by hand. Stock carts and display carts loaded with honey and other display materials can be rolled up the ramp into the trailer. The same carts can be rolled back down the ramp when at the sales venue. Hive equipment and nucs can be placed on stock carts and rolled in and out of the trailer for transport while doing splits and light duty apiary work in Alabama.



# The Service Delivery Cycle

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# Follow-up

At a predetermined time, contact the farmer to evaluate how the AT is performing

- ▶ Do you feel safe using this AT? OUTCOME MEASURE
- ▶ Are you able to accomplish the necessary task independently using this AT? OUTCOME MEASURE
- ▶ Does the AT fit you, or does it need adjusted?
- ▶ Is the AT holding up to use? Is the vendor responsive to your calls for parts, repairs, maintenance, adjustments?
- ▶ Do you like using the AT to do the task? Is it efficient? OUTCOME MEASURE

# Follow-up Evaluation of the AT

We really want to be finished at this point, but who are we serving?

- ▶ Revisit the goals and outcome measures. Are they met?
- ▶ Revisit the plan. Did we miss something important? Do we need to update the goals?
- ▶ What is the follow along strategy?
- ▶ What if the AT is refused? Broken? Abandoned?

## Follow-up (case study)

- ▶ For 2024 Mary continues selling honey with help from her family. She returned to Alabama once to split her hives and replace deadouts. She had them transported back home in May. Mary borrowed equipment from her husband's family to distribute the hives to the bee yards. The heavy-duty apiary work is now through October and she has helpers lined up for that time period. Mary will work in the honey house extracting and packaging and selling honey throughout the summer.



## Follow-up (case study) continued

- ▶ A major concern for her business model is sharing labor and equipment with Greg. In the past she has been a regular employee for him, and as a benefit of that he hauled her hives to Alabama and allowed her to use his slinger forklift for moving pallets of hives around her home apiaries. With her medical conditions, Mary cannot do the physical labor required with her own hives plus working as an employee for Greg. If she did not have the disability, she could both move her hives by hand more easily and work for Greg and have access to his lifting equipment. Due to the disability, she is now facing the requirement of having better lifting equipment for her own beekeeping business.



**Camper for housing in Alabama while working winter bees since she no longer has employee housing with Greg's crew**

# Follow-along

At a predetermined time, contact the farmer to evaluate longer term function. Has medical condition or farm task changed? Is a new assessment needed?

- ▶ Do you feel safe using this AT? **OUTCOME MEASURE!**
- ▶ Are you able to accomplish the necessary task independently using this AT? **OUTCOME MEASURE!**
- ▶ Does the AT fit you, or does it need adjusted?
- ▶ Is the AT holding up to use? Is the vendor responsive to your calls for parts, repairs, maintenance, adjustments? **OUTCOME MEASURE!**
- ▶ Do you like using the AT to do the task? Is it efficient? **OUTCOME MEASURE!**



# The Service Delivery Cycle spaghetti

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**RESNA**

Rehabilitation Engineering and Assistive Technology Society of North America

# Questions?

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