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Onsite Farmstead Medication Assessments to Prevent Injury and Improve Safe Medication Use

Objectives

- Identify medicines which increase the risk of falls and secondary injury on the farm/ranch.
- Examine the impact of a medication assessment service on Missouri AgrAbility clients' confidence in safe medication use and health-related quality of life.
- Discuss ways to prevent medication-related falls and injuries on the farm/ranch.



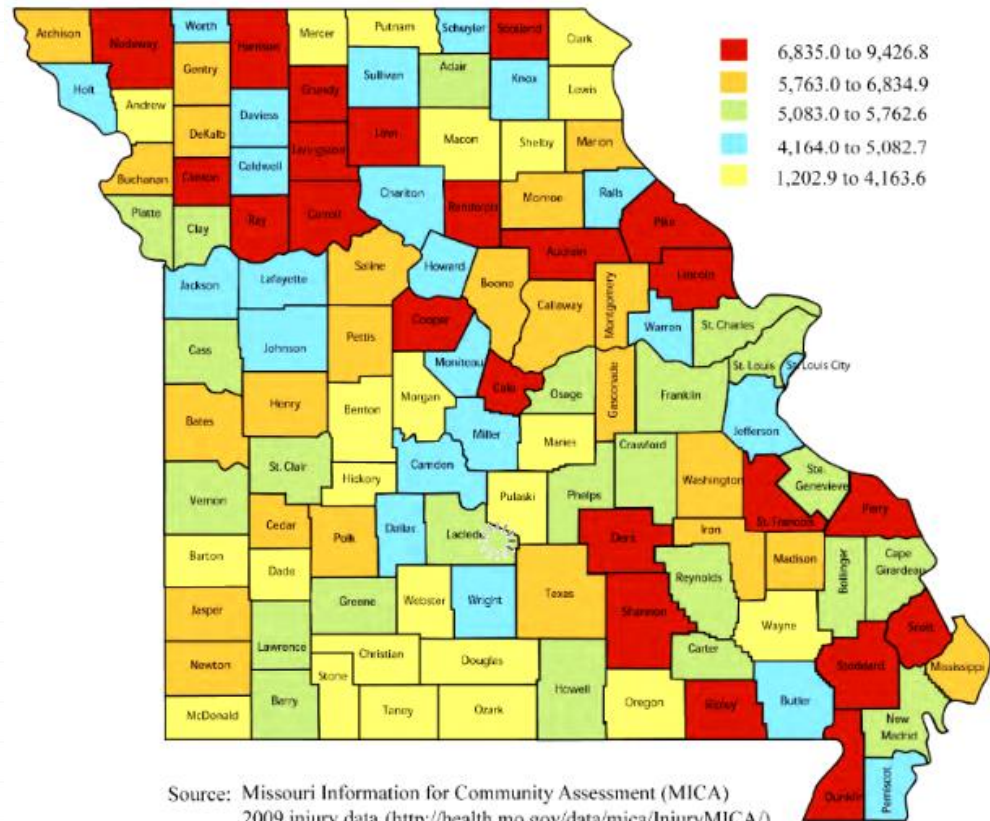
Case study

- RJ is a 72 year old Missouri farmer
- Hobby farm on roughly 300 acres which includes: hay, corn, and 95 head of beef cattle
- Medical conditions:
 - Parkinson's disease
 - Arthritis pain
 - Hypertension
 - Diabetes
 - Constipation
 - Depression
 - Seasonal Allergies
- Past surgical history:
 - Hip replacement 1 year ago

Impact of Falls

- 1 in 3 adults ≥ 65 years experience a fall
- Leading cause of both fatal and nonfatal injuries
- Fear of falling
- Most common cause of traumatic brain injury
- Fracture
- Reduces ability to function independently
- \$30 billion in medical cost

Figure 3. Rate (per 100,000) of ER visits and hospitalizations for injuries from falls (defined as a fall or jump) for adults 65 years of age and older in 2009



Medication-Related Agricultural Injury

- Use of medications alone and in combination
- Regular medication use increases risk **1.4-2.6 times**
- Stomach, laxative medicines increase risk **2.8 times**
- Heart, circulatory medicines increase risk **4.2 times**
- Narcotic pain relievers increase risk **9.3 times**
- Non-narcotic pain relievers increase risk **2.4 times**
- Incontinence medicine increases risk **2.95 times**
- Anxiety or sleep medicine increases risk **3 times**

Risk factors for agricultural injury: a case-control analysis of Iowa farmers in the Agricultural Health Study. *Accid. Anal. and Prev.* 1996;28(4):453-462.

Medications as risk factors for farm injury. *Accid. Anal. and Prev.* 1996;28(4):453-462.

Health, medication use, and agricultural injury: a review. *Am. J. Ind. Med.* 2009;52:876-889.

Pain, medication and injury in older farmers. *Am. J. Int. Med.* 2006;49:374-382.

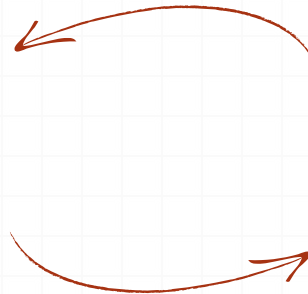
Objective 1: Identify medicines which increase the risk of falls and secondary injury on the farm/ranch.

Condition

- Arthritis/Chronic pain
- Heart disease
- Stroke
- High blood pressure
- Diabetes
- Seizure disorders
- Osteoporosis
- Parkinson's disease
- Depression
- Alzheimer's disease
- Dementia
- Psychosis
- Spasms

Treatment

- Narcotics
- Water pills
- Blood pressure medicine
- Heart rhythm
- Oral diabetes medicine
- Insulin
- Anticonvulsants
- Antidepressants
- Anti-anxiety medicine
- Antipsychotics
- Anti-nausea medicine
- Allergy medicine
- Anti-spasm medicine
- Bladder medicine
- Sleeping pills



Side effects of some medicines



Dizziness



Confusion



Lightheadedness



Drowsiness



Blurred vision

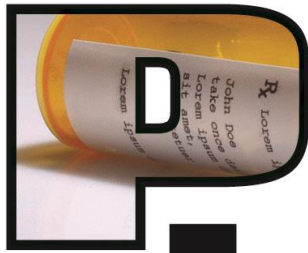


Gait disturbance



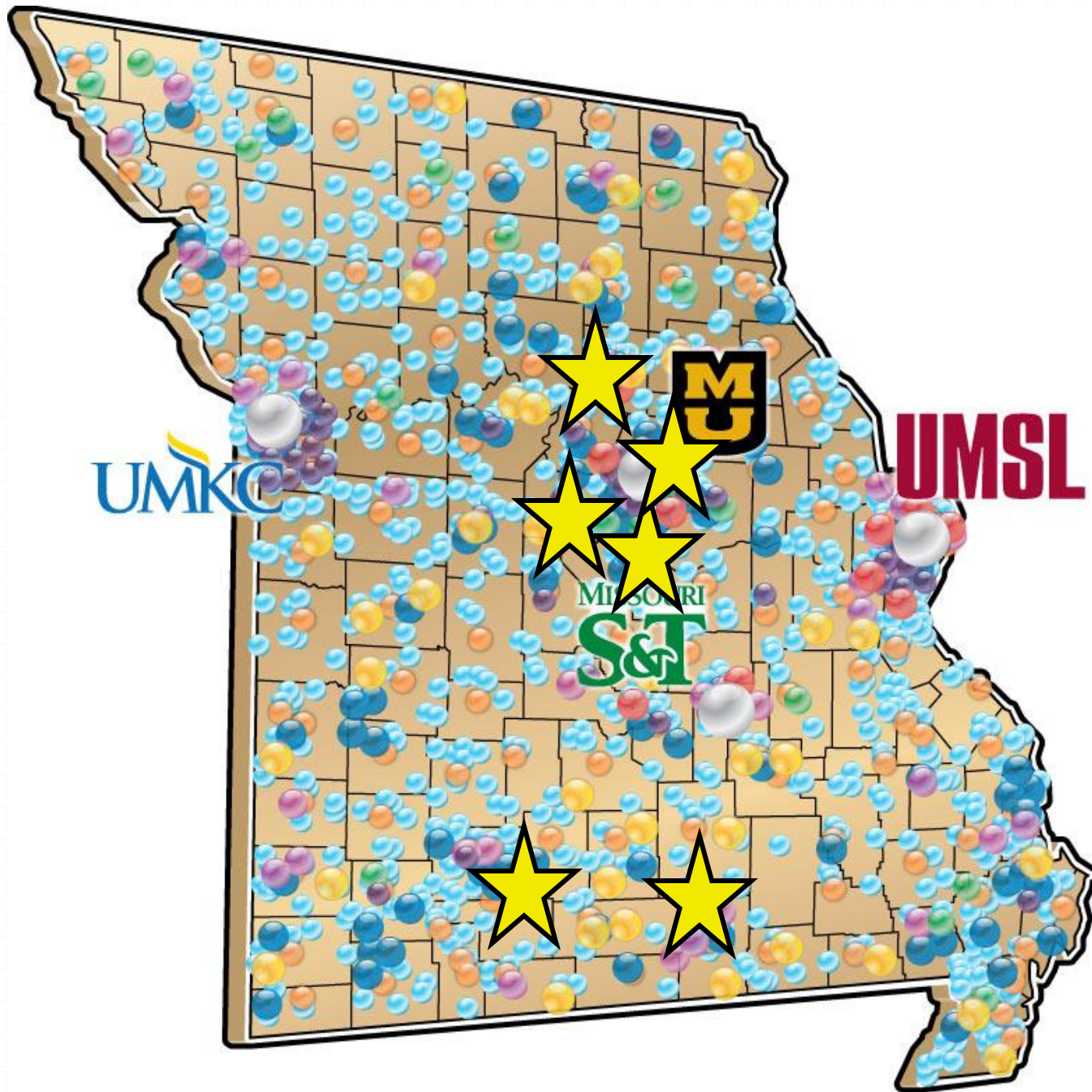
Objective 2: Examine the impact of a medication assessment service on Missouri AgrAbility clients' confidence in safe medication use and health-related quality of life.

PHARM to FARM



to





Why pharmacy students?

- “most accessible healthcare profession”
- “among most trusted healthcare professionals”
- medication expert
- Knowledge and Training
 - Assessment
 - Safe medication use
- Communication skills
 - Health literacy
 - Adherence
 - Counseling
 - Education
- Patient advocate



Safe medication use

- o No medication is benign
- o Assess drug interactions
- o Prevent adverse effects
- o Patient-centered
- o Educate and empower patients

MEDICAL CENTER

NAME _____ AGE _____
ADDRESS _____ DATE _____

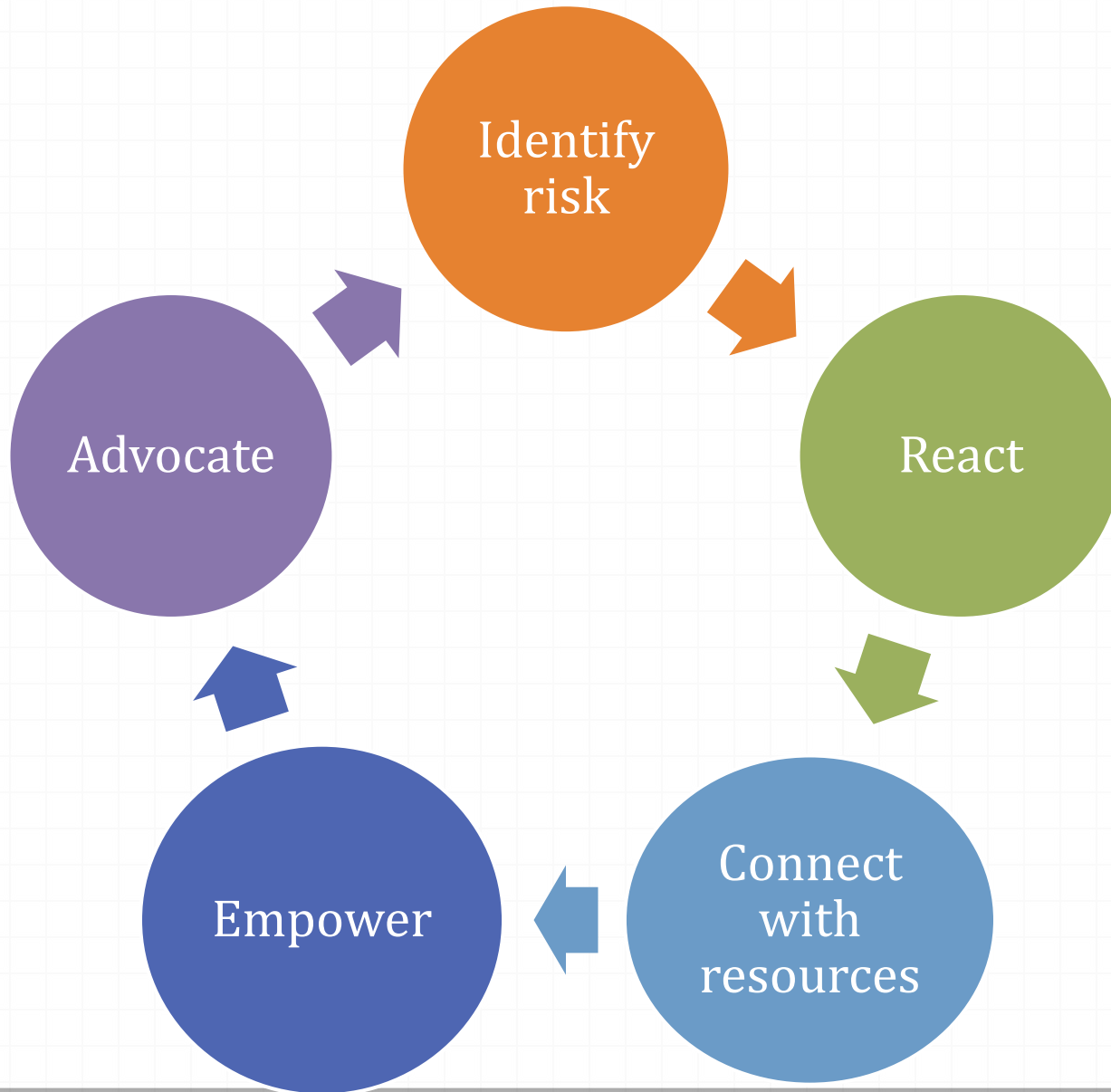
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LABEL

REFILL 0 1 2 3 4 5 PRN NR

SIGNATURE

Objective 3: Discuss ways to prevent medication-related falls and injuries on the farm/ranch



Objective 3: Discuss ways to prevent medication-related falls and injuries on the farm/ranch

- During the past 12 months were you injured seriously enough that you got medical advice or treatment?
- Do you visit a primary care provider regularly?
- Predisposing conditions
- Do you take medicine for a condition?
- Multiple physicians
- Decreased alertness
- Onsite Farmstead Assessment



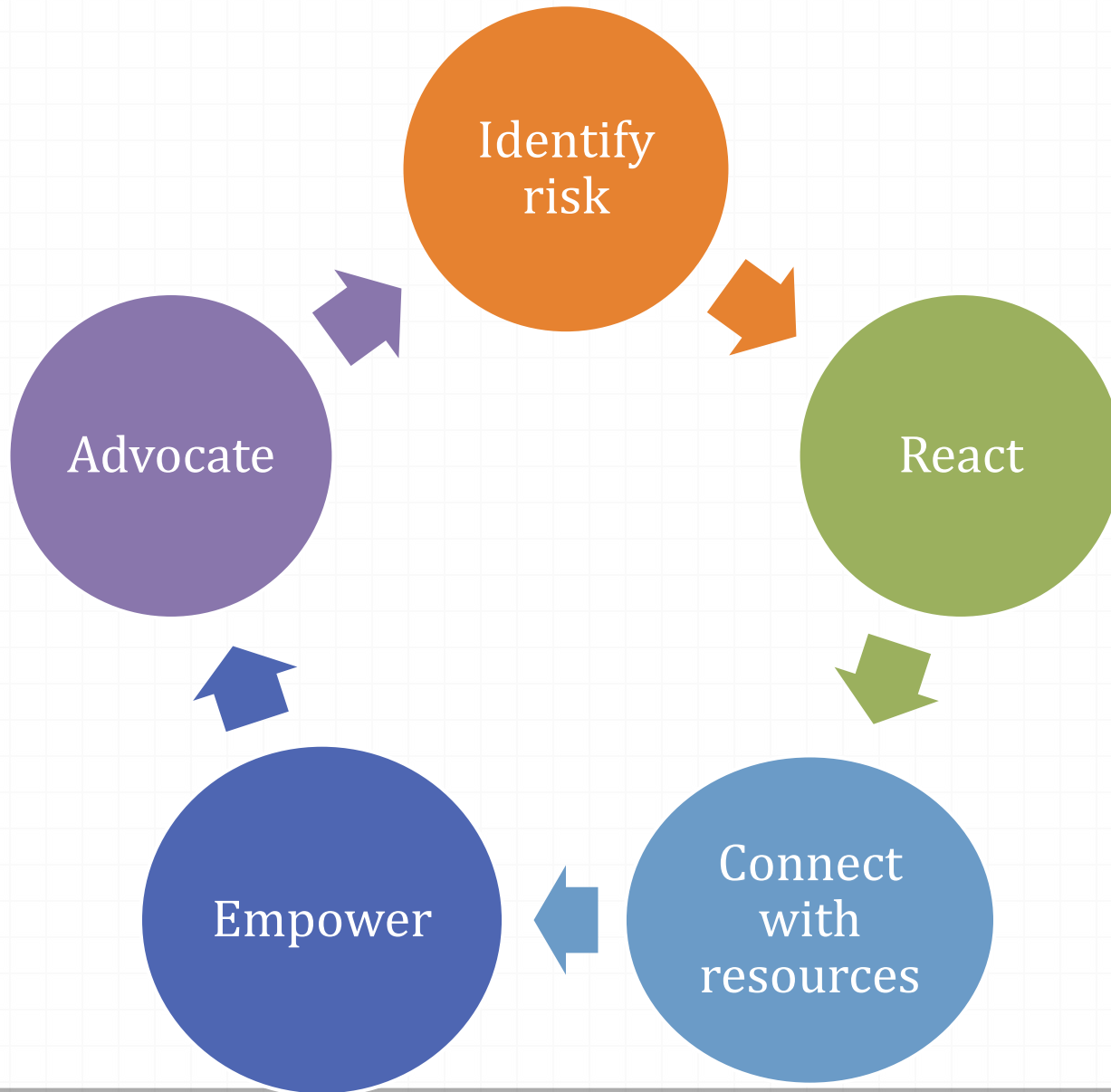
Identify
risk

Identifying Potential Risks

- Sedation
- Dizziness
- Confusion
- Lightheadedness
- Blurred vision
- Gait disturbance



Objective 3: Discuss ways to prevent medication-related falls and injuries on the farm/ranch



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- Determine if changes to farm work
- Recognize that medication side effects could be contributing
- Recognize that chronic conditions could be contributing
- Express concern for potential risks



React

Objective 3: Discuss ways to prevent medication-related falls and injuries on the farm/ranch

- o Extension
- o Refer to pharmacist or physician for medication review—especially at Transitions of Care!
- o Telehealth Networks
- o Health fair screenings
- o Falls Prevention Resources



Connect with resources

Objective 3: Discuss ways to prevent medication-related falls and injuries on the farm/ranch

- o Encourage overall health
- o Motivate client to:
 - o Place value to seeking care
 - o Ask questions of their healthcare providers
 - o Voice concerns about injuries or medicine



Empower

Objective 3: Discuss ways to prevent medication-related falls and injuries on the farm/ranch

- Services & resources to resource-poor areas
- Extension
- Access to care



Advocate



Red Flags

- Balance impairment
- Changes in sensorimotor function/skills
- Recent falls
- Recent hospitalization
- Altered confidence in ability to work on the farm
- Changes to farm management
- Changes to family involvement

Case study

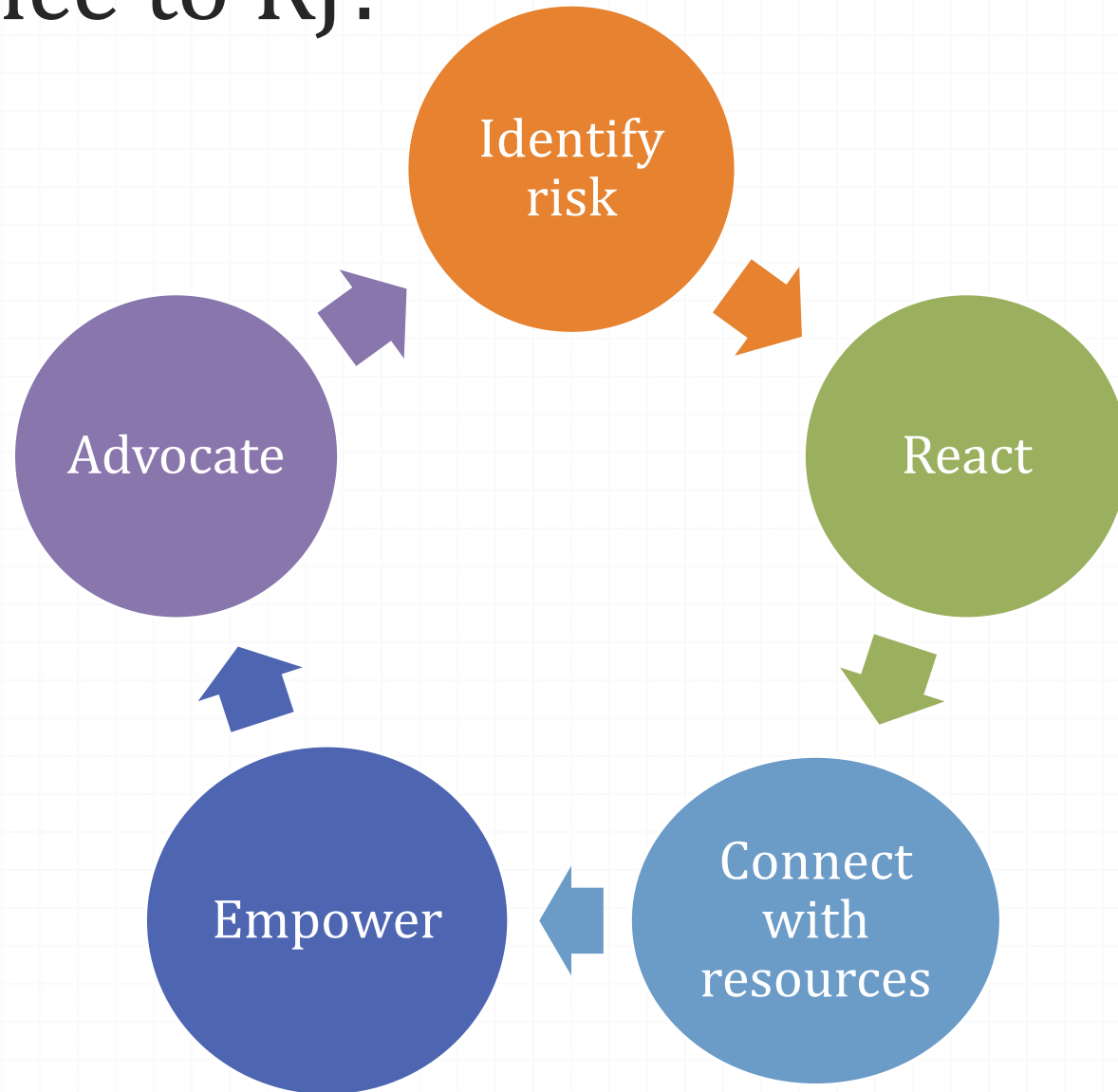
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Case study

Onsite Farmstead Visit information collected:

- Recent fall 1 month ago
- Fall resulted in hospitalization
- Requests assistive devices for stability
- RJ states: “I’m just not as strong as I was before the fall.”

Case study: How would you provide assistance to RJ?



Questions?

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