Community Planning Radiological Event

March 19th, 2026

Clint Taylor

Radiological Emergency Preparedness Planner

Overview

- Background
- What is a Community Reception Center (CRC)?
- Point of Dispensing (POD) vs CRC
- CRC Operations
- Resources / Tools

Public Health Roles/Responsibilities

The Nuclear/Radiological Incident Annex of the National Response Framework (NRF) and other Health and Humans Services (HHS) documents identify five specific public health areas of responsibility:

- Population Monitoring
- Decontamination
- Laboratory Analysis
- Fatality Management
- Communications

Objectives of Population Monitoring

1. Identify people in immediate danger.
2. Identify people who need medical treatment for contamination or exposure.
3. Recommend and facilitate practical steps to minimize risk.
4. Register people for long-term health monitoring.

Key Considerations in Population Monitoring

- Recognize community members with special needs
- Know how to identify the affected population
- Size of the community
- Available local resources
  - Facilities, equipment and staff for monitoring and decontaminating people.
  - Agreements with local jurisdictions
  - Volunteers to support Population Monitoring (CRC)

When would Community Reception Centers be used?

- **Nuclear and radiological incidents:**
  - Nuclear Weapon
  - Improvised Nuclear Device
  - Radiation Dispersal Device (RDD / Dirty Bomb)
  - Nuclear Power Plant accident
  - Other instances where radioactive contamination or exposure occurs and could affect large groups or populations.

Categories of Radiological Events

Source Term	Exposure	Contamination	Protective Action(s)
Sealed Source	Yes	No	Exposure Control: Time, Distance & Shielding
Small Leak or Spill of radioactive material	Yes	Yes, but limited in size	Isolate affected area. Decontaminate locally as necessary.
Uncontrolled, large release of radioactive material	Yes	Yes	Evacuate immediate area. Assess severity of exposure and contamination. Triage accordingly.

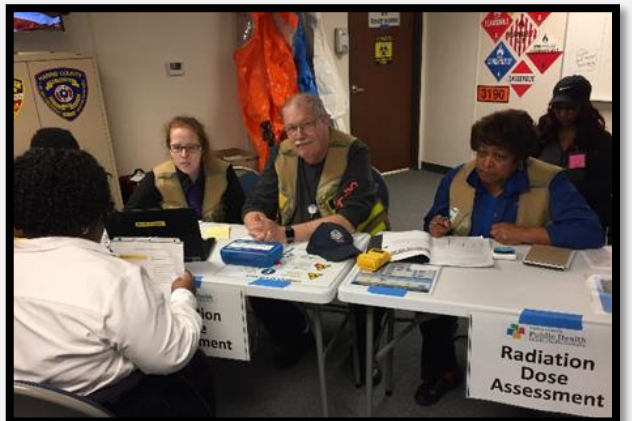
What is a CRC?

- Community Reception Centers (CRCs) are temporary facilities established by local public health and emergency response officials during radiation emergencies.
- CRCs focus on screening individuals for:
  - Radioactive contamination
  - Providing decontamination services
  - Offering basic medical aid
  - Assessing radiation exposure
  - Registering people for long-term follow-up care to minimize health risks and support community recovery.

Community Reception Centers (CRC)

Local Response Strategy for Conducting Population Monitoring

- Multi-agency effort, public health lead
- Staffed by government officials and organized volunteers.
- Opened 24-48 hours post incident
- Located outside of “Hot Zone”
- Comparable to Points Of Dispensing (PODs)



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Community Reception Centers (CRC)

- Services include:
  - Contamination screening
  - Decontamination
  - Limited medical care
- Main purpose is to prioritize people for further care.
  - Ease burden on hospitals
  - Manage scarce medical resources

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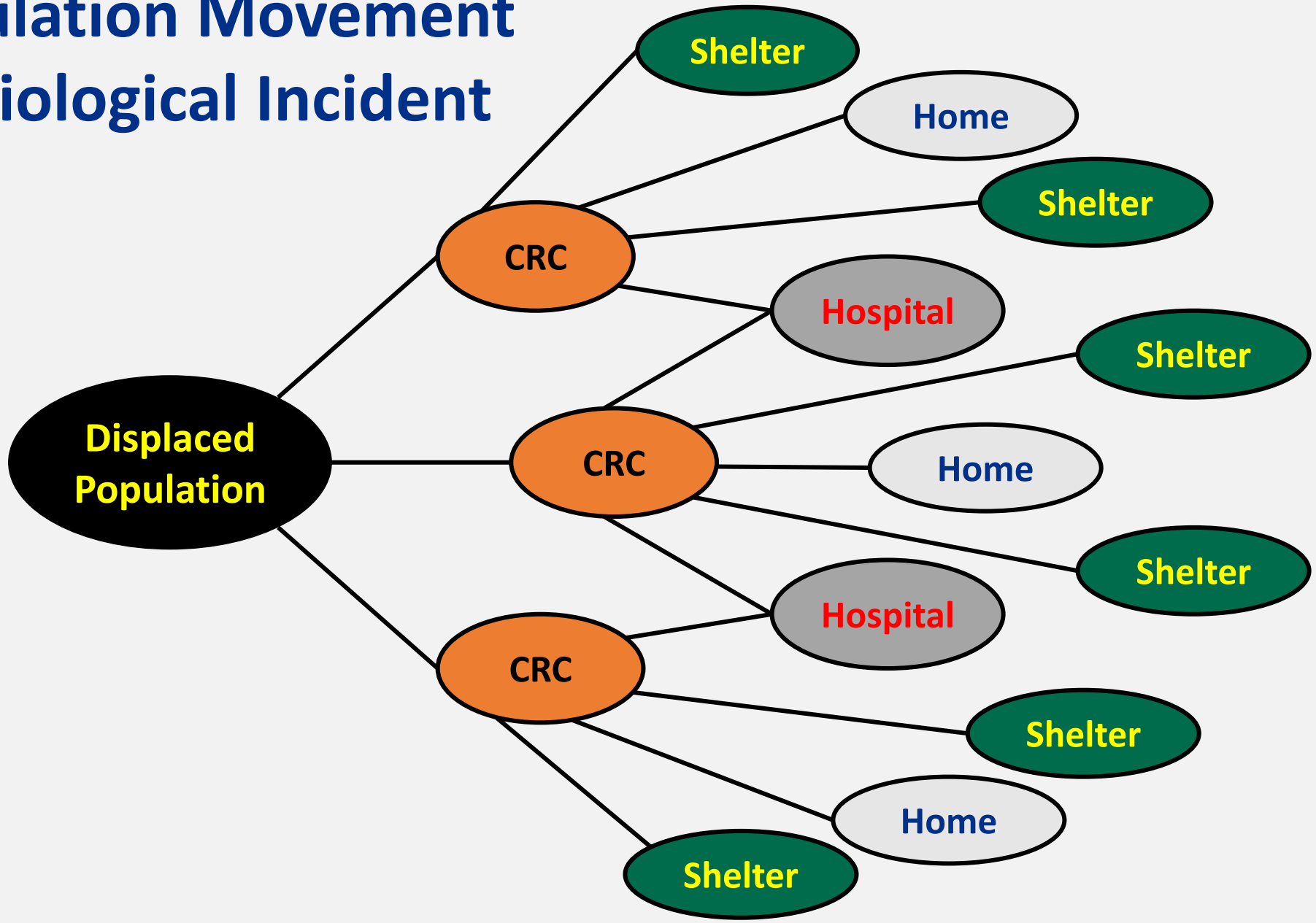
What a CRC is Not

- Community Reception Centers (CRCs) are not shelters.
- No provisions for
  - Overnight / Sleeping
  - Food / Meals
- CRCs do not provide direct medical care with the exception for some First Aid measures.

Population Movement
Radiological Incident



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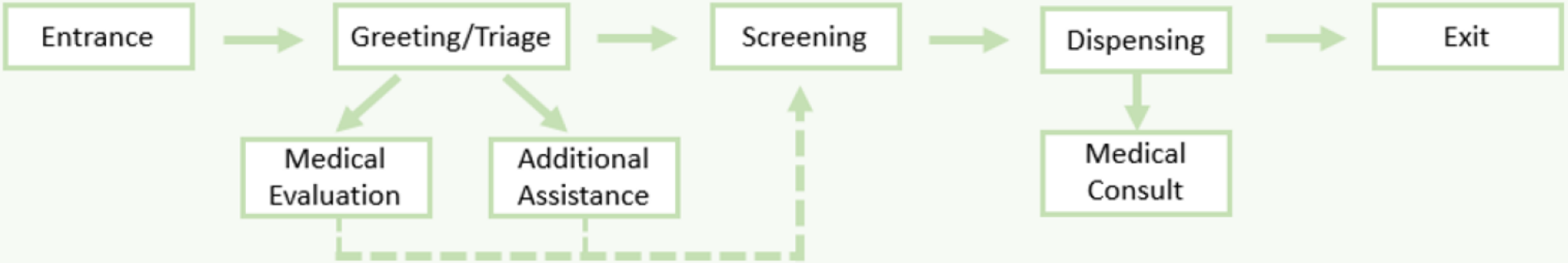
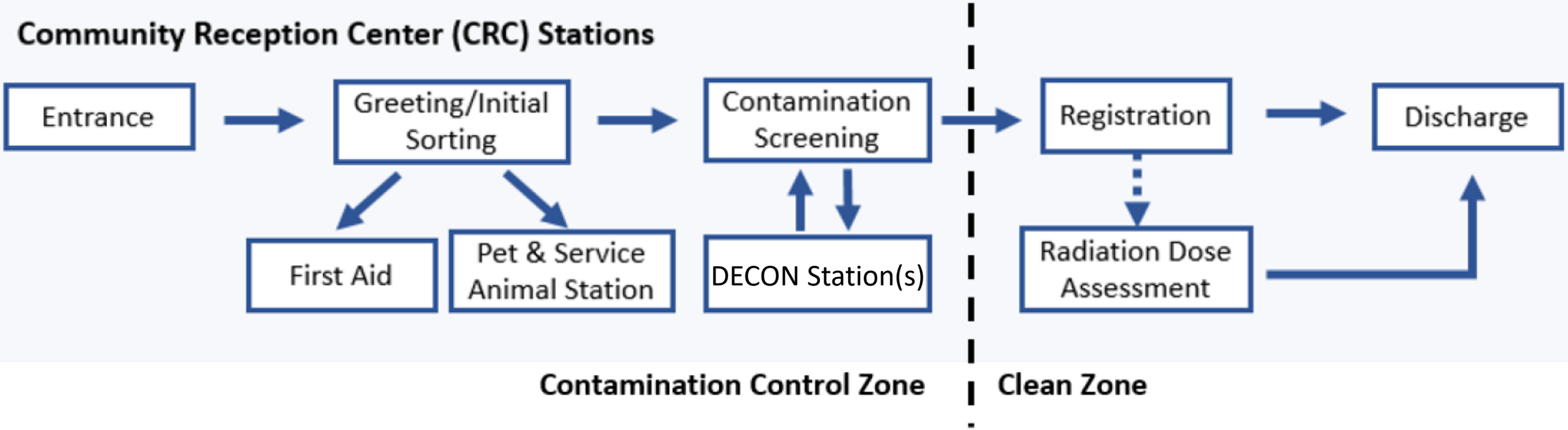
Point of Dispensing (POD) vs CRC

- A Point of Dispensing (POD) site is a federally instituted best practice model designed to provide medications, vaccines, or medical supplies to a large community of healthy people during a health emergency.
- Both PODs and CRCs involve **high-throughput operations** for managing large populations during public health emergencies.
- While PODs focus on dispensing medical countermeasures (e.g., antibiotics or vaccines), CRCs emphasize population monitoring, including radiation screening, decontamination showers, and counseling for affected individuals after a radiological or nuclear incident.
- PODs are designed for efficient flow of people to dispense medications or vaccines, which aligns closely with CRC needs for screening, decontamination, and registration of potentially contaminated individuals. Similar floor plans, staffing models, and traffic management can be reused or modified.

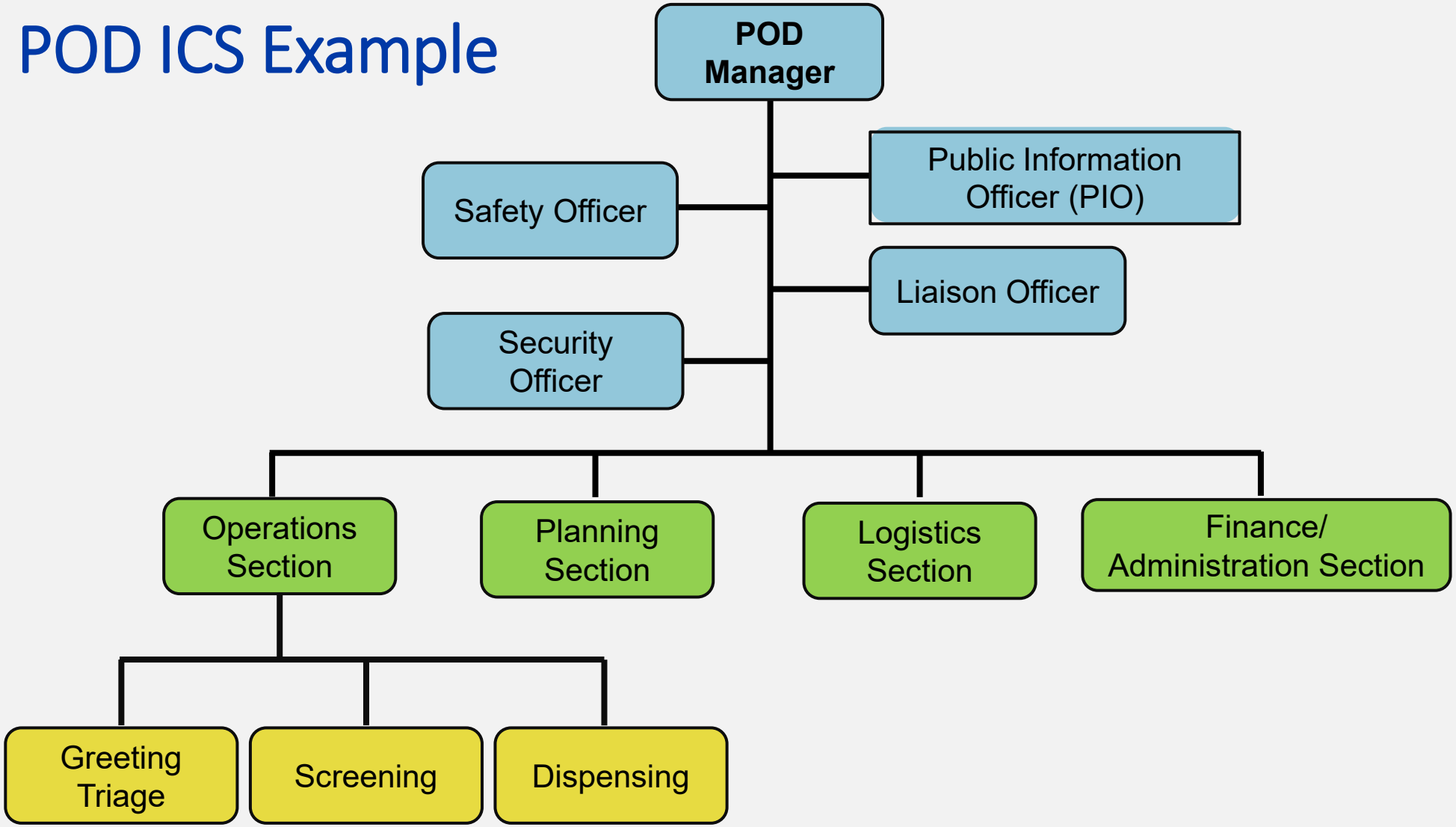
Point of Dispensing (POD) Stations



Community Reception Center (CRC) Stations



POD ICS Example



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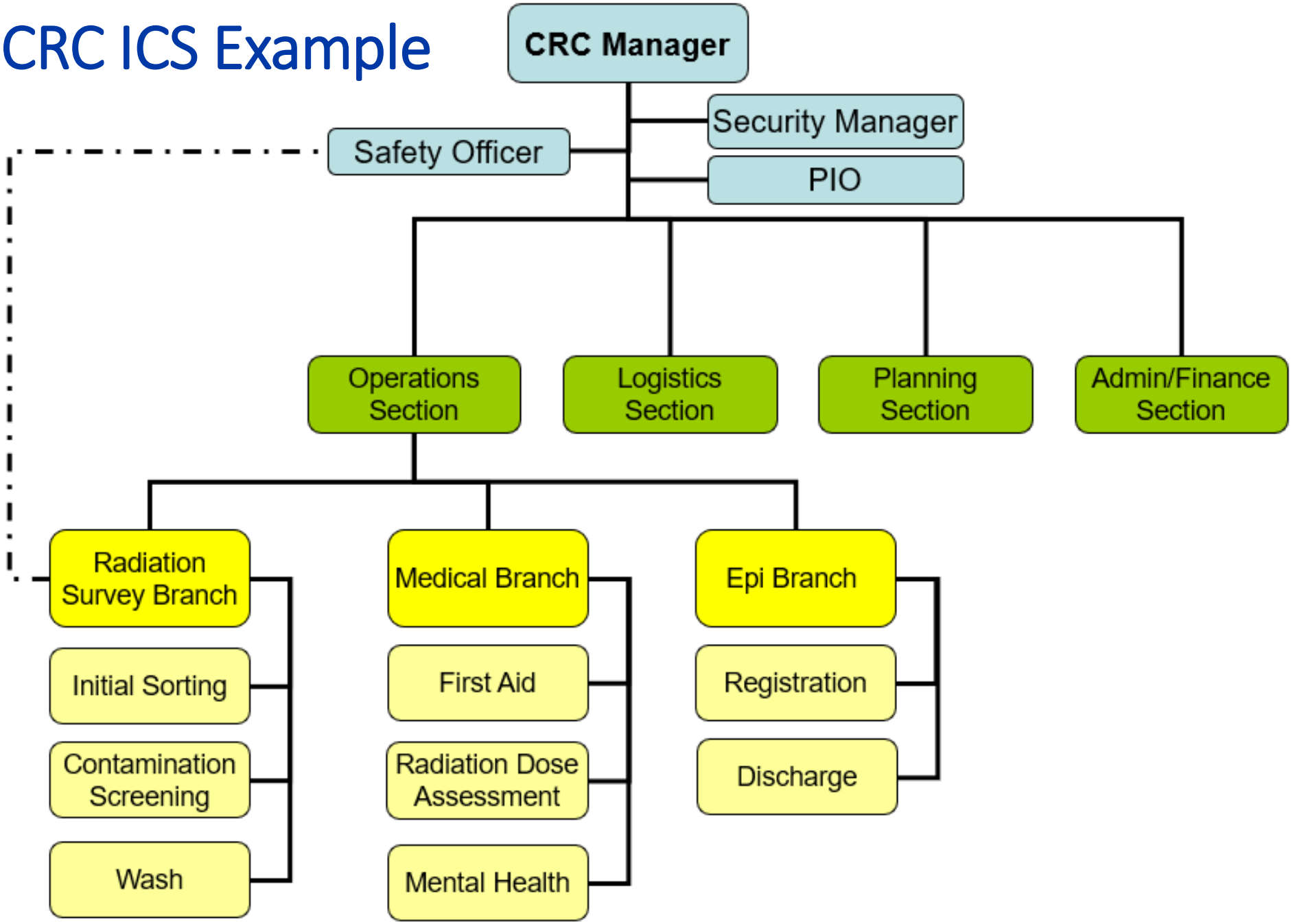
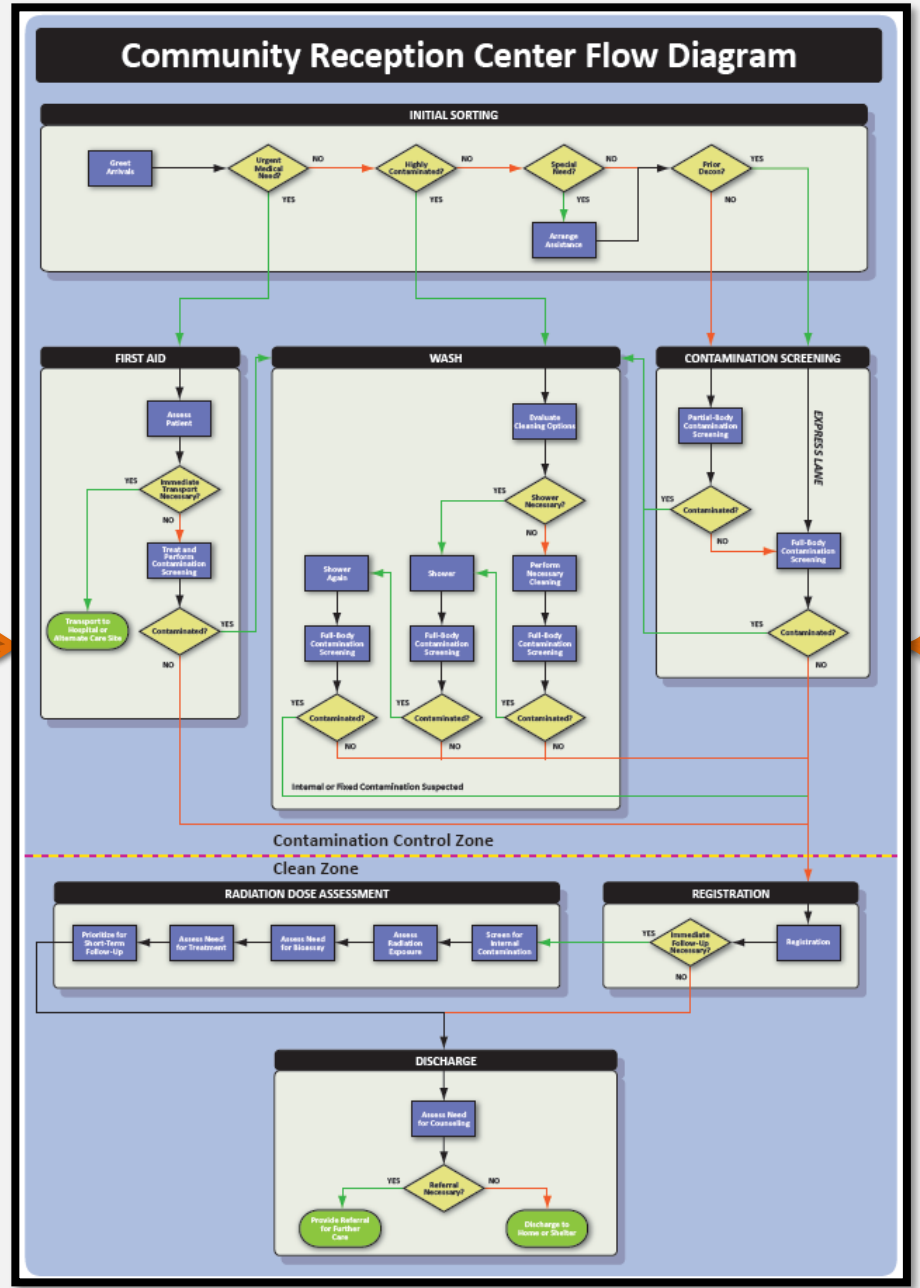
CRC ICS Example



Origin → CRC → Endpoint

Affected Area

Surrounding Community



Home

Public Shelter

Hospital or Alternate Care Site

General Considerations (1)

- Screening parameters set by radiation control authorities
- Type of radiation detection equipment used must be appropriate for type of radioactive material present.
- Staffing needs depend on:
  - Desired throughput
  - Specific detection equipment
  - Physical characteristics of facility
  - Specific wash facilities
- Transportation – to urgent medical care, to/from rallying points, shelters, etc.
- Vehicle contamination

General Considerations (2)

- Psychosocial issues
- Contaminated personal belongings and valuables
- Contaminated personal vehicles
- Security
- Pets

General Considerations (3)

- Physical contact must be minimized, especially between stations.
- PPE – specific need depends on station/assignment.
- Personal dosimetry devices.
- Gloves need to be changed (or screened) frequently.
- Staff leaving for break or shift change will need to change out PPE and be screened.
- No food or drink at any station, none anywhere in Contamination Control Zone.
- Entire CRC should be surveyed regularly for contamination

Community Reception Center Flow

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7 Stations:

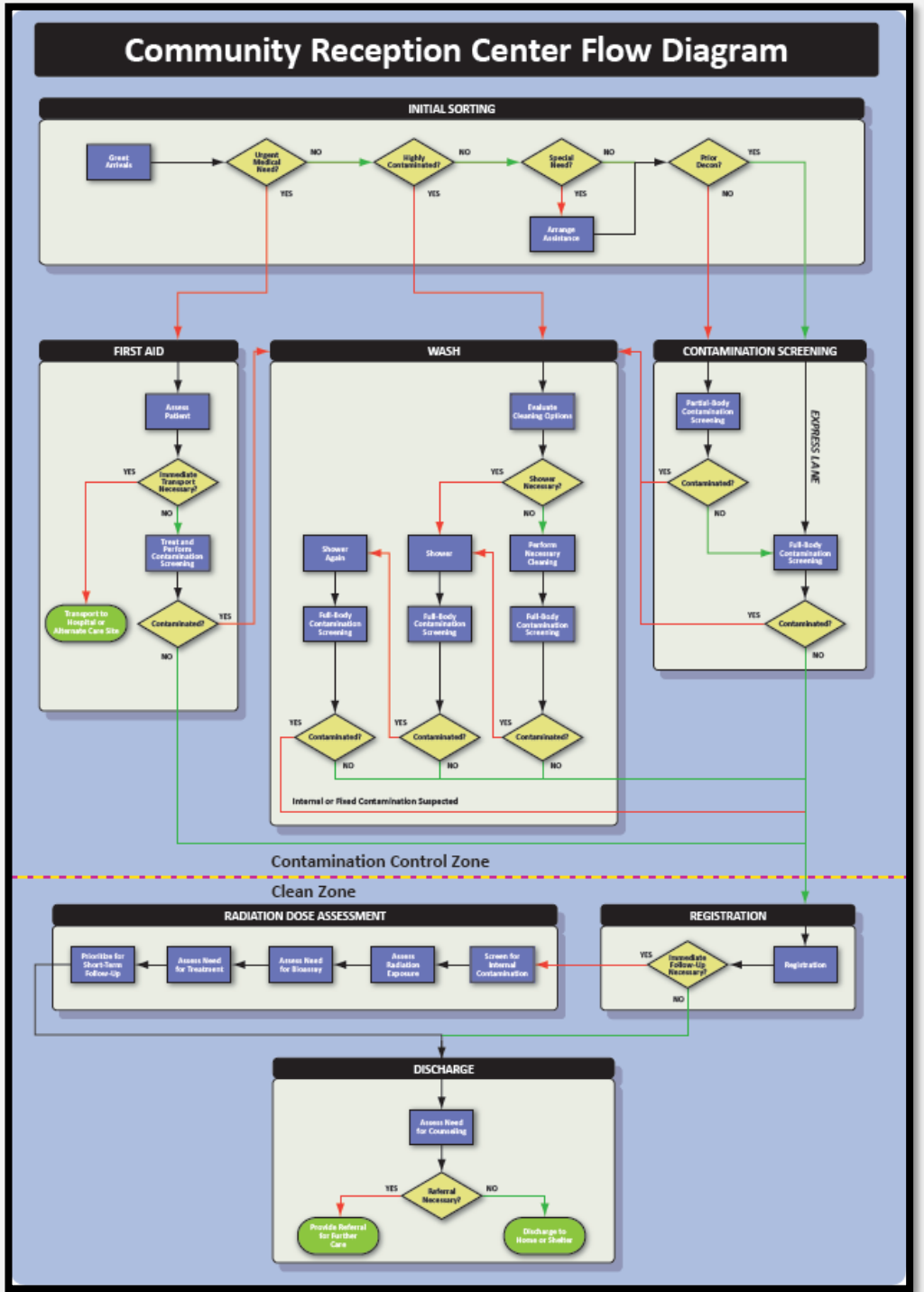
Sorting / Contamination Control

- Initial Sorting
- First Aid
- Contamination Screening
- Wash

Contamination Control Zone

Clean Zone

- Registration
- Radiation Dose Assessment
- Discharge



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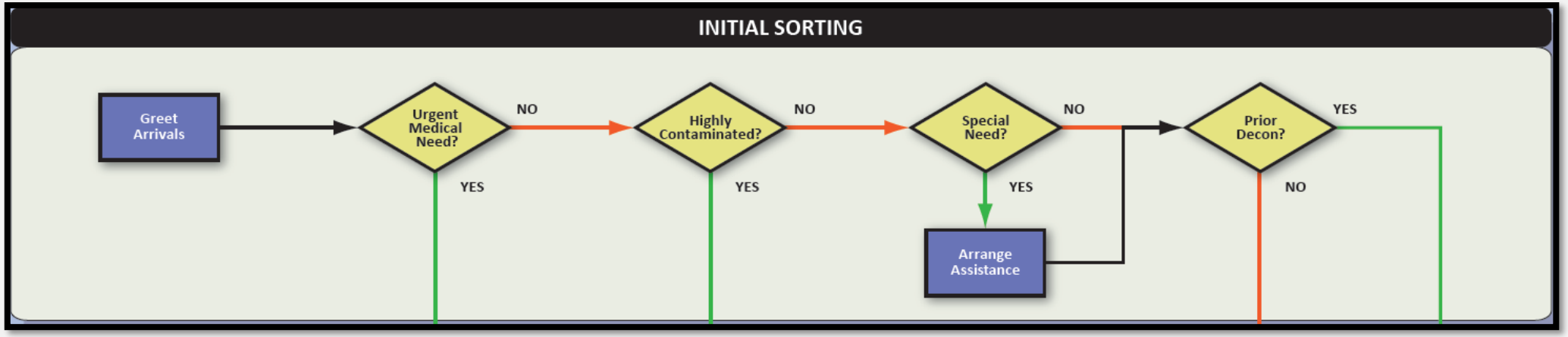
Initial Sorting

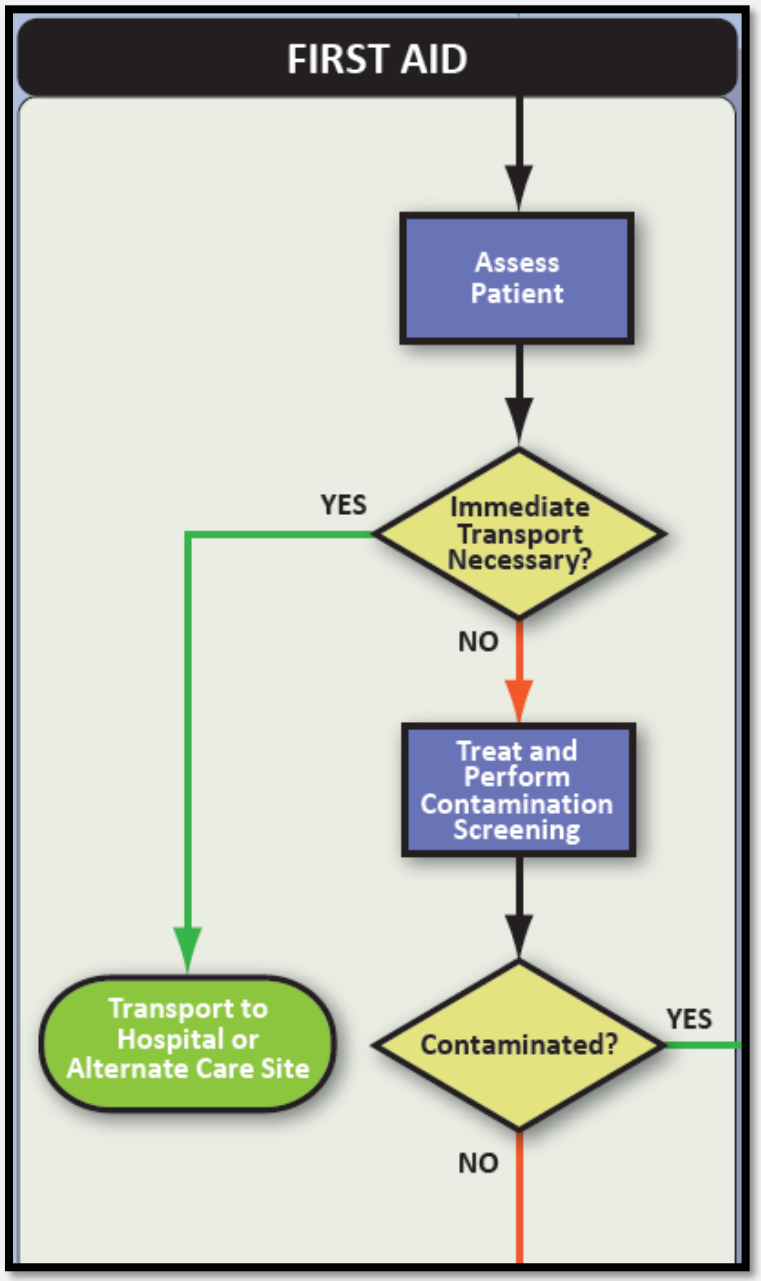


Initial Sorting Station, staff welcome and direct people where they need to go.

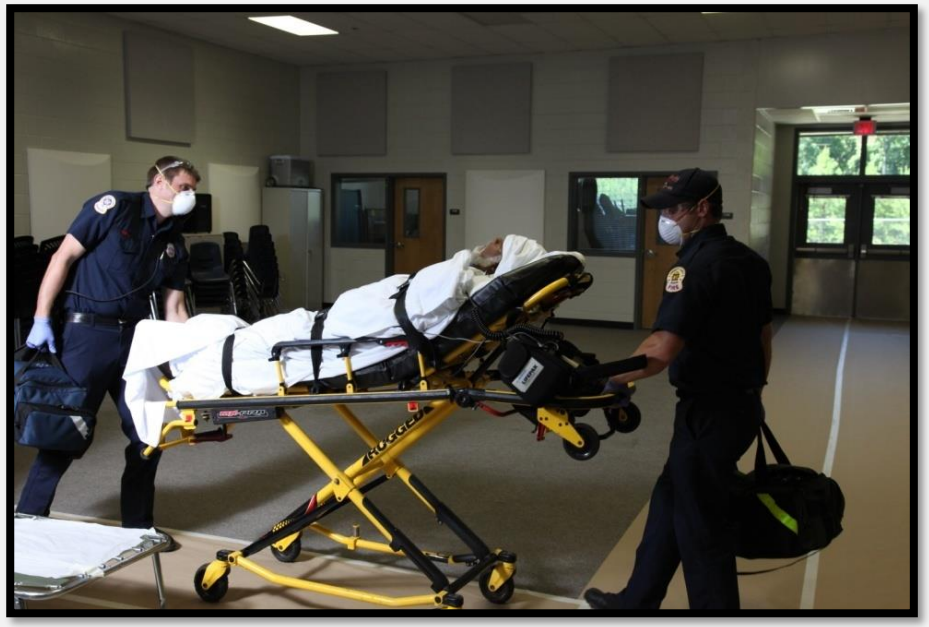
Staff identify people who have:

- Urgent medical needs
- High levels of contamination
- Special needs
- Identify people who have decontaminated before coming to the CRC.

First Aid



- Medical staff care for and/or transport patients with urgent medical needs.
- First Aid staff can perform a gross decontamination by carefully removing the patient's outer layer of clothing before transport.
- Life saving care takes priority!
  - Do not delay transport for DECON!



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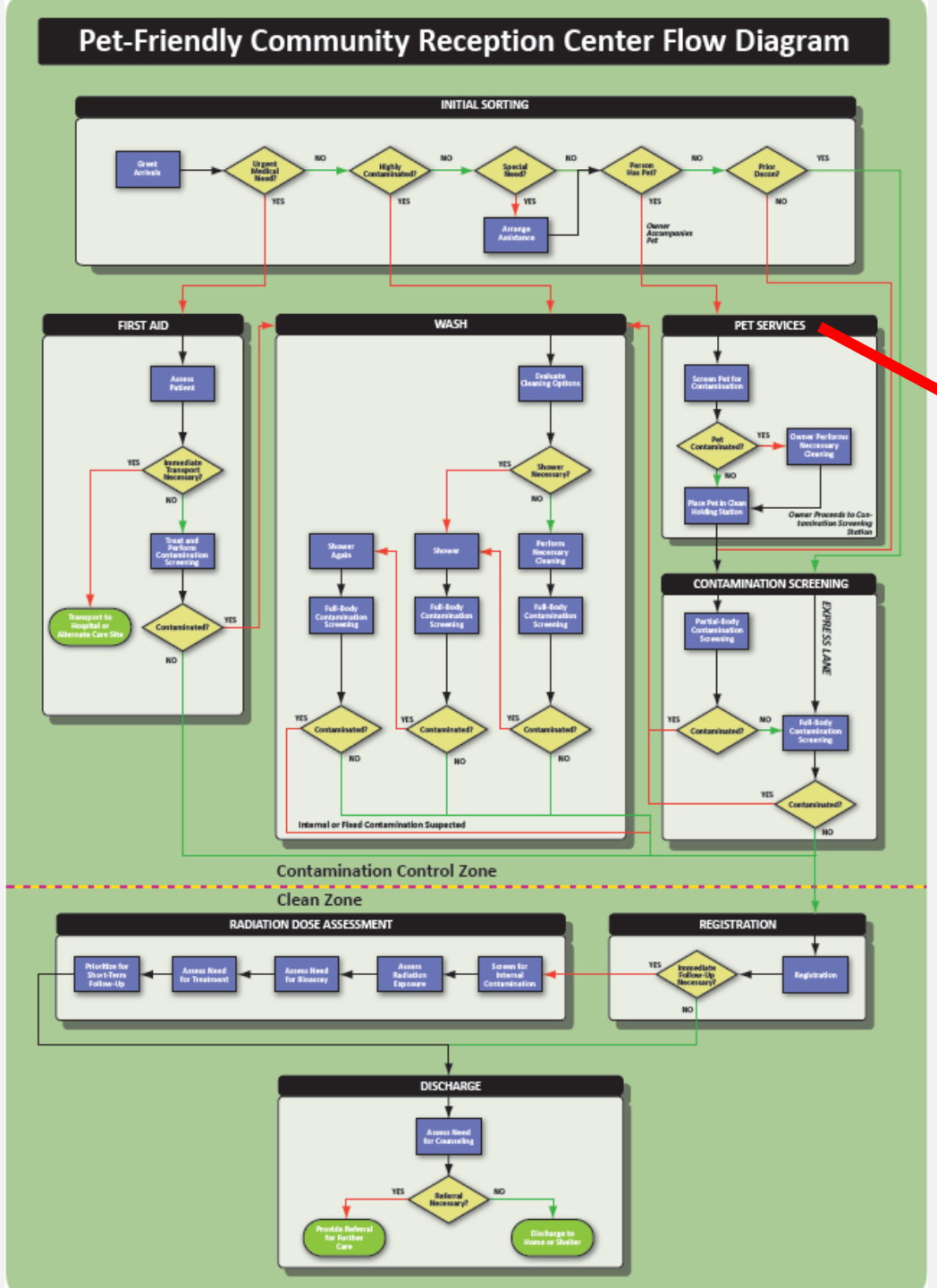
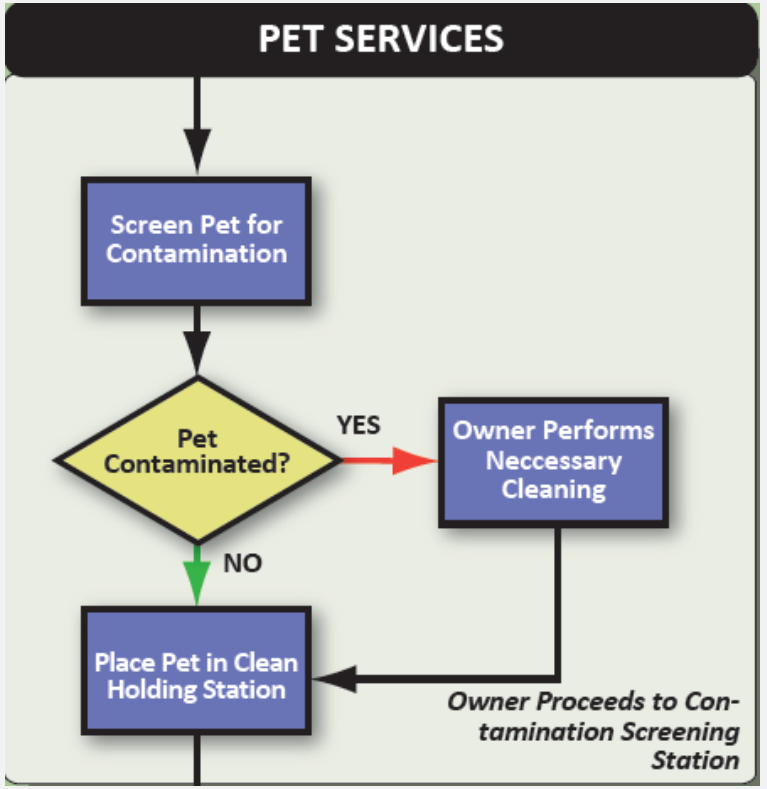
Pet-Friendly Community Reception Center Flow Diagram

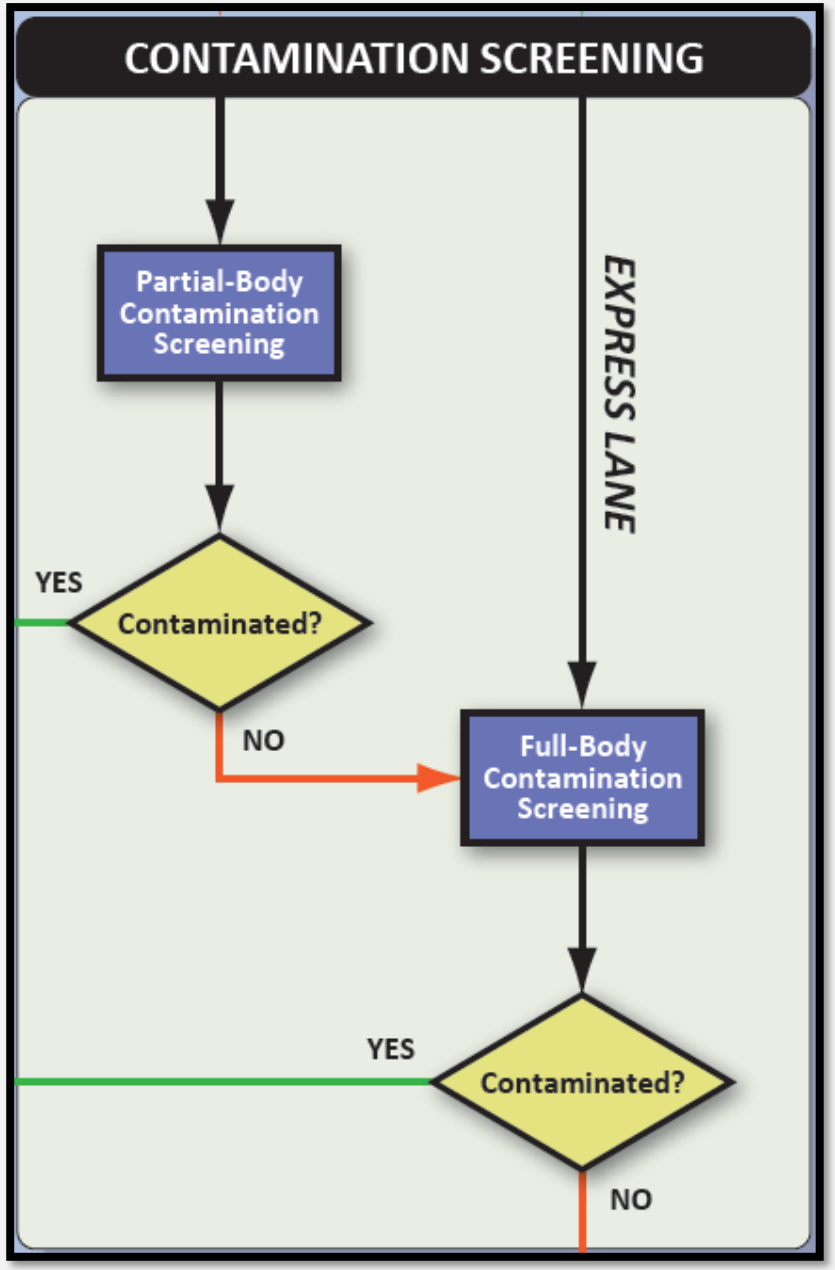


Note: Pet Services conducted after Initial Sorting.

Pet Owner responsible for Pet Cleaning.



Contamination Screening



- Staff screen people for external contamination.
- Each person must undergo a full-body contamination screening before entering the clean zone.
- If contamination is detected during this screening, that person will be sent to the Wash Station.

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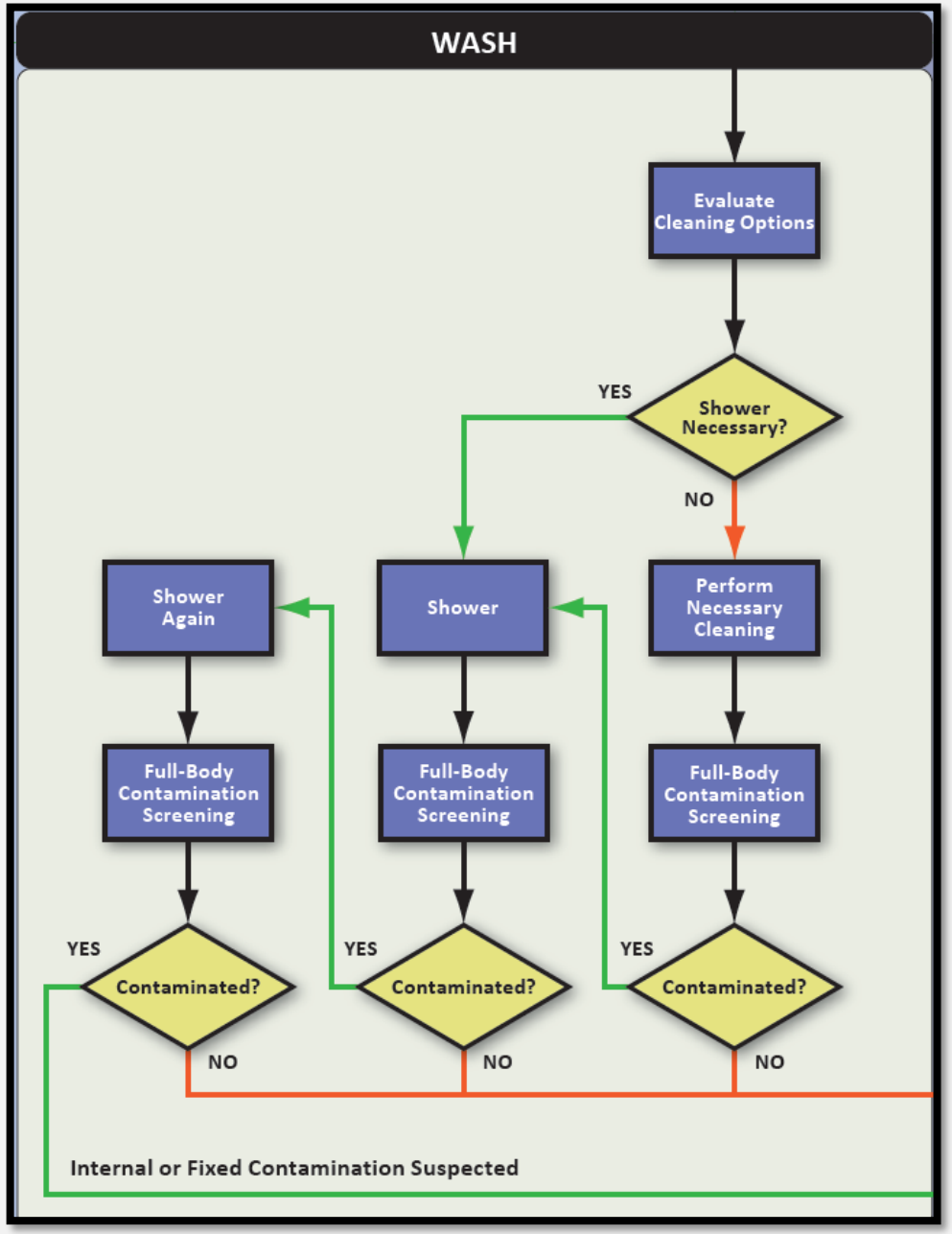
Wash



- Staff monitor and facilitate showering.
- People wash themselves
  - People with special needs may require additional assistance.
- Screening staff perform a full-body screening to ensure the person is clean

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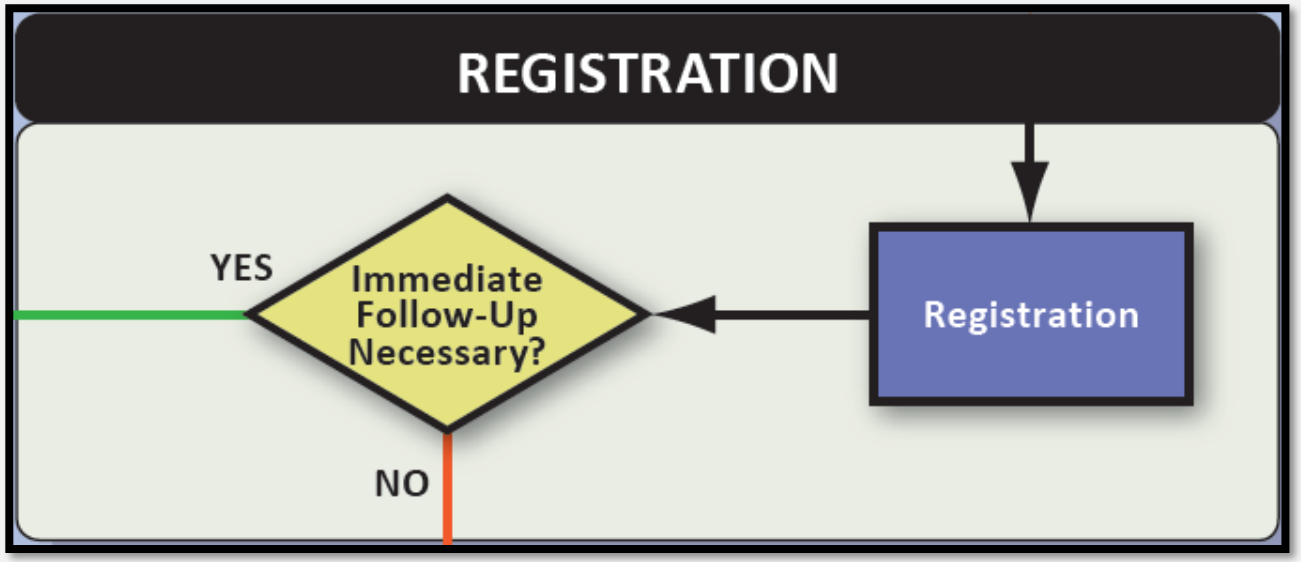
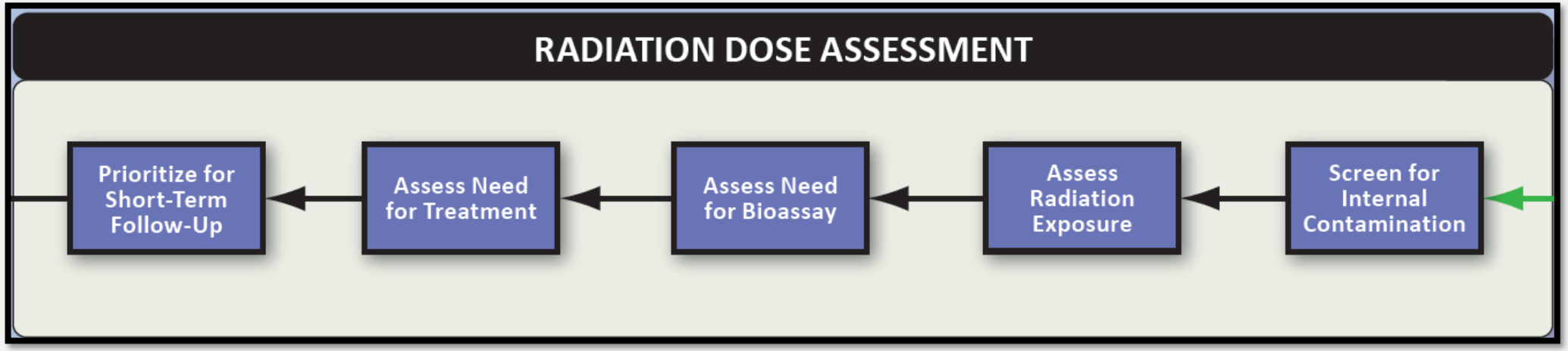
Registration



Staff collect information for registry and long-term follow-up:

- Name
- Contact information
- Destination
- Proximity to event
- Time in affected area

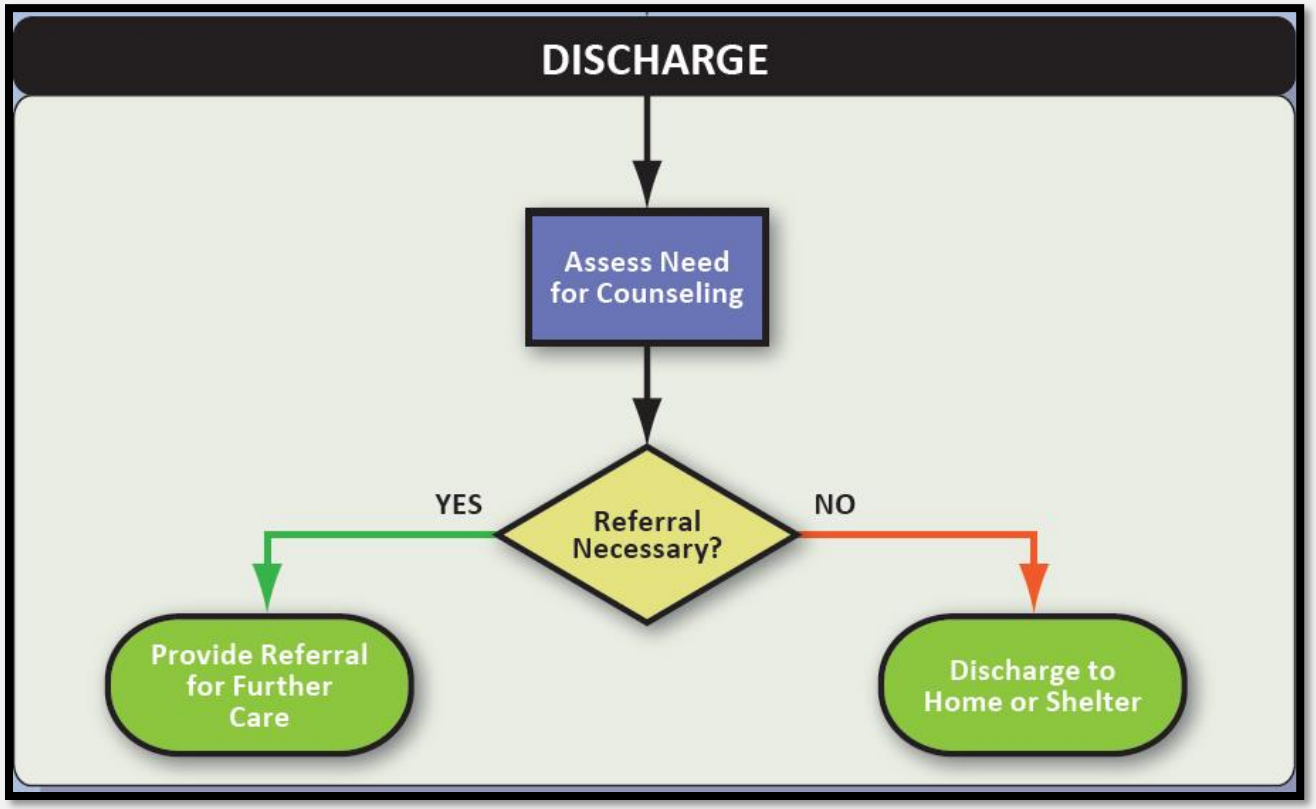
Radiation Dose Assessment



Clinical and Health Physics Staff:

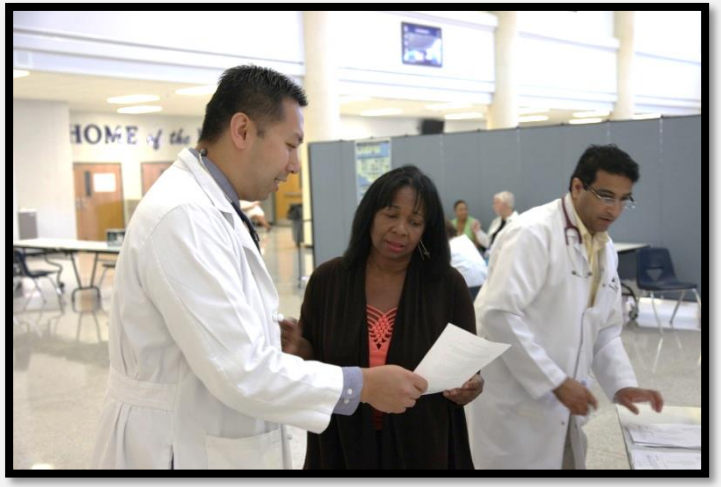
- Screen for internal contamination
- Assess radiation exposure
- Assess need for bioassay
- Assess need for treatment
- Prioritize for short-term follow-up

Discharge

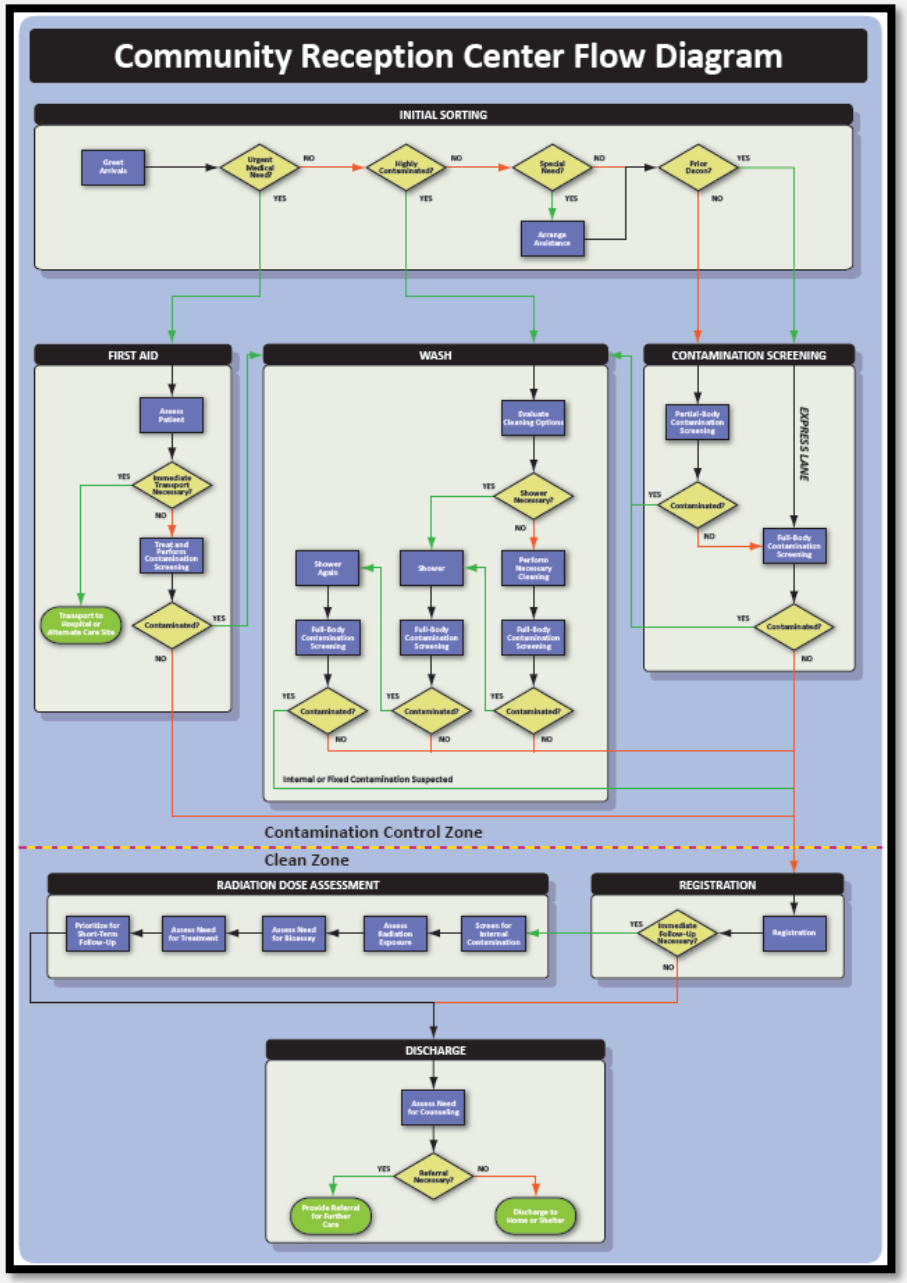


Staff involved with discharging:

- Provide people with additional information.
- Discharge to home or shelter
- Provide referral for additional care



Community Reception Center Flow Diagram



- Standardized model promotes interoperability.
  - Facilitates regional response
- Process is scalable & can be adjusted to meet capabilities.
  - Instrumentation
  - Personnel
  - Resources
- Additional processes can be added or as needed.
  - Pets
  - Relocation services

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Volunteers That Can Help!

- Texas Disaster Volunteer Registry (TDVR)
- Medical Reserve Corps Radiation Teams (MRC)
- Community Emergency Response Teams (CERT)
- Texas Voluntary Organizations Active in Disaster (VOAD)
- American Red Cross (ARC)
- Nuclear Medicine Technicians (Hospitals)
  - Southwestern Chapter of the Society of Nuclear Medicine and Molecular Imaging.
- Colleges with Radiation Technical Programs
- Healthcare Coalition Volunteers
- Fire Depts / Volunteer Fire Depts

CRC Examples

CRC Arena / Gymnasium Set-Up

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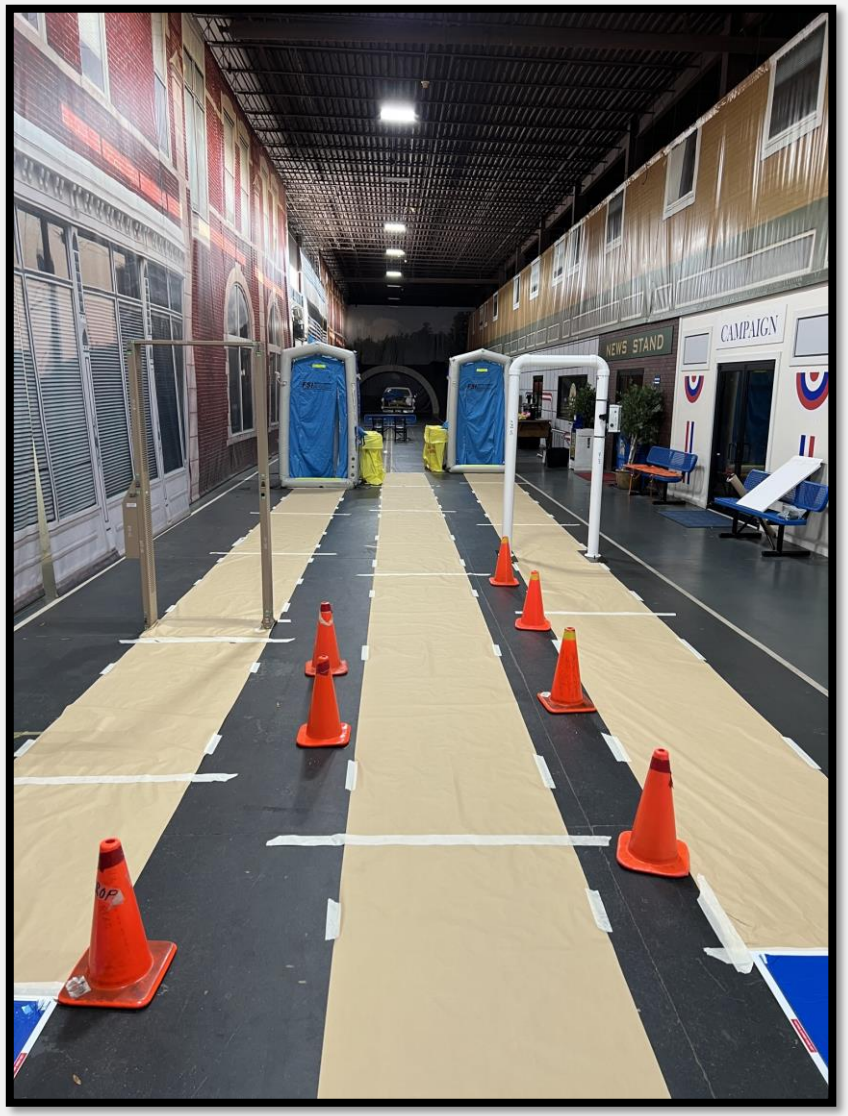
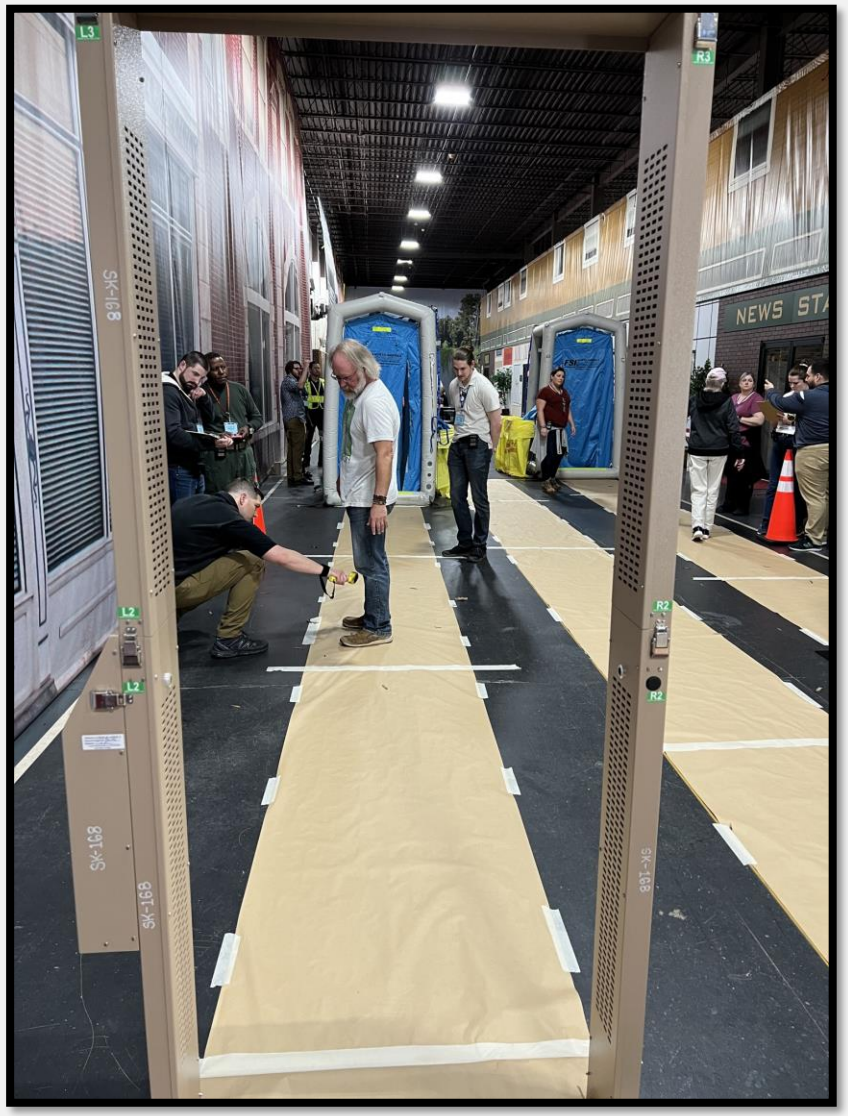
CRC Linear Flow Set-Up





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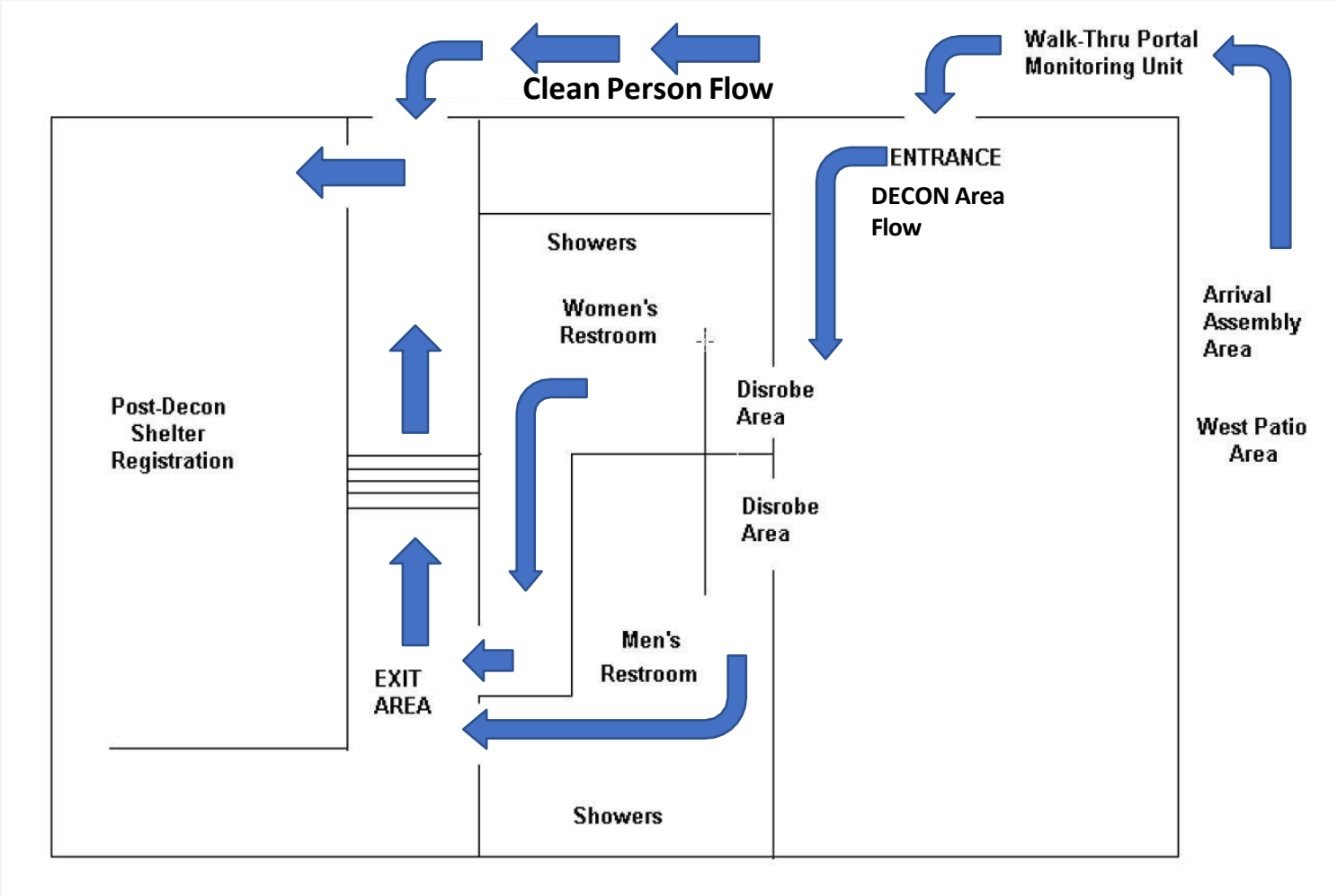
Benbrook CRC

Benbrook, Texas Community Center / YMCA

Benbrook CRC Flow



Benbrook CRC

Vehicle Survey Area

Assembly Area for CRC Processing

CRC Team

Vehicle Survey Team

Benbrook Fire Department
HAZMAT Team

CRC Team Safety Briefing

Equipment Issue and Set-Up

Dosimeter & Survey Meter Issue

Portal Monitor Set-Up

Radiation Survey Equipment

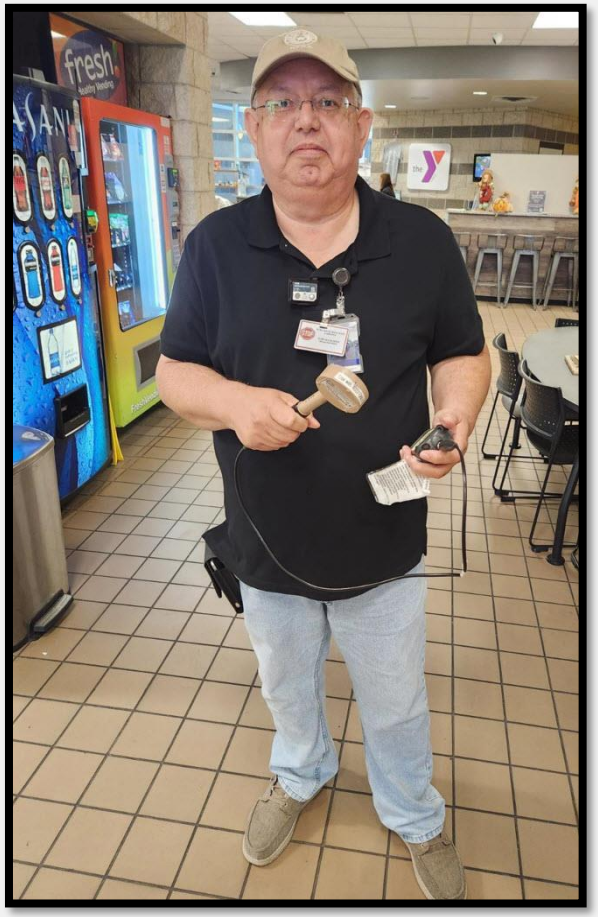
Thermo Scientific RadEye GX Survey Meter
With Ludlum 44-9 Pancake Probe

Rapiscan TPM905 Pedestrian Portal Monitor

Surveying for Contamination

Portal Monitor & Screener

Post DECON Screeners



NOTE: PPE was Simulated

Benbrook CRC Registration Area

Population Monitoring Fukushima Daiichi Nuclear Power Plant Disaster (Japan 2011)

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Fukushima Daiichi Nuclear Power Plant 11 March 2011

- 72,660 people screened at 142 sites (March 11-21)
  - Peaked at 14,000 per day
- 244,281 total people screened
- All cleaned by removal of clothing and wiping
  - Showering was not needed

- No immediate deaths from radiation exposure

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DSHS Radiation CRC Support

- 2-3 DSHS Radiation staff per CRC
- Coordinate to bring in more Radiation SMEs as needed to support the local government.
- Just in Time training as needed
- Job Action Sheets are Available (CDC)
- Provide or locate needed radiation equipment
- Assist with recommendations of layout
- Provide recommended contamination limits
- Answer any technical or health physics questions

**DSHS Radiation does not run the CRCs*

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Resources / Tools

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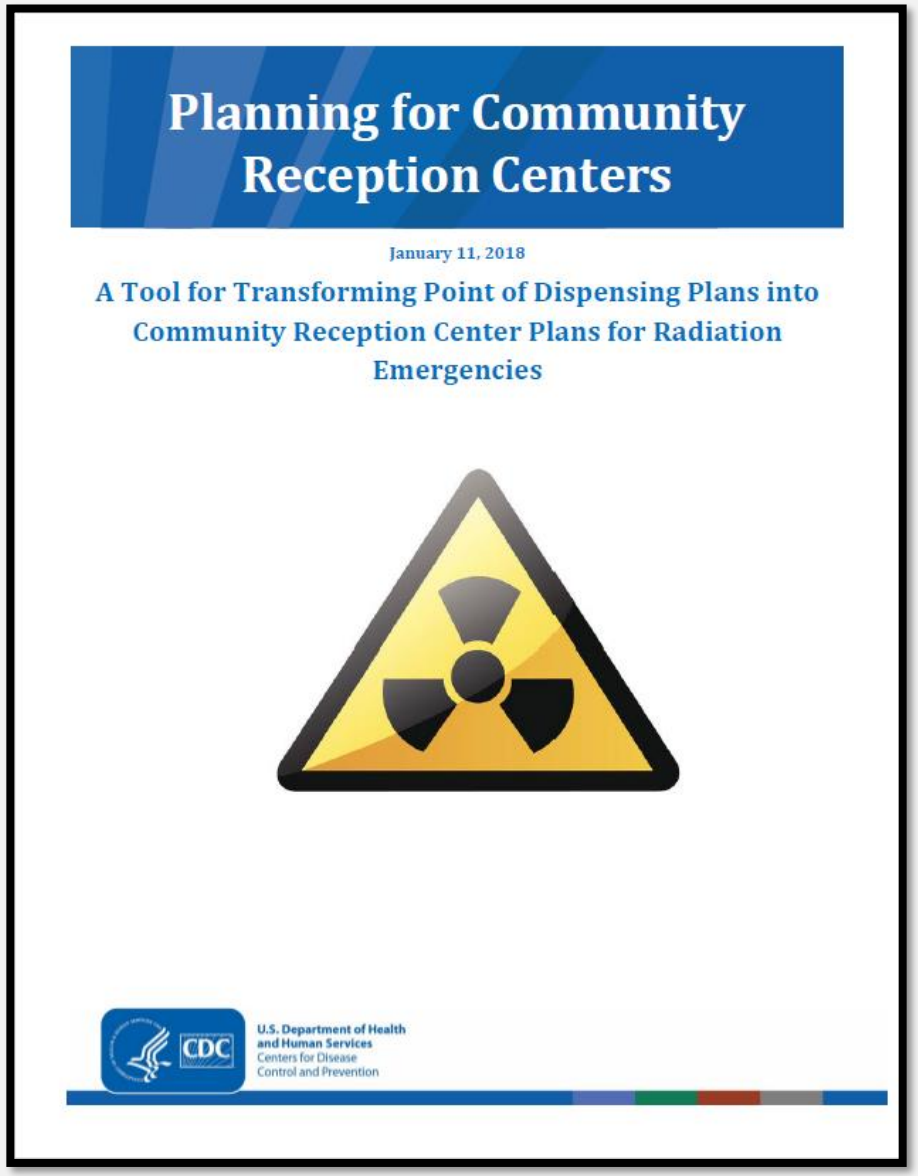
Tools are available to assist with planning…

CDC - POD to CRC Toolkit



Resources / Tools

- CDC - Community Reception Centers - Web Information
- CDC - Radiological Terrorism - Public Health Officials Toolkit
- CDC - Community Reception Center (CRC) Drill Toolkit
- CDC - POD to CRC Toolkit
- CDC - CRC SimPLER
- CDC - Population Monitoring Radiation Emergency
- Virtual CRC
- Virtual CRC - Resources-Documents & Videos
- CRC Station Summaries & Job Action Sheets

Resources / Tools

- Optimizing Radioactive Contamination Screening at Community Reception Centers

  PDF Document

- Population Monitoring in Radiation Emergencies.

  PDF Document

- A Guide to Operating Public Shelters in a Radiation Emergency.

  PDF Document

- Transforming Point of Dispensing (POD) Plans into Community Reception Center (CRC) Plans for Radiation Emergencies.

  PDF Document

Resources / Tools

- Nuclear/Radiological Incident Annex to the Response and Recovery Federal Interagency Operational Plan.

  PDF Document

- EPA Protective Action Guides and Planning Guidance for Radiological Incidents.

  PDF Document

- Ambulance Guidelines for Response to Radiation Events.

  PDF Document

Resources / Tools

- Clinical Guidelines for Handling Radioactive Decedents

  PDF Document

- Radiation Response Briefing Manual - Guide for Key Leaders and Public Health Decision Makers

  PDF Document

- Communicating Radiological Incidents to Public and Media

  FEMA - Nuclear Detonation - Communicating Aftermath

  FEMA - Improvised Nuclear Device - Communicating Aftermath

  FEMA - Nuclear Power Plant Incident - Communicating During and After

CRC SimPLER

Community Reception Center

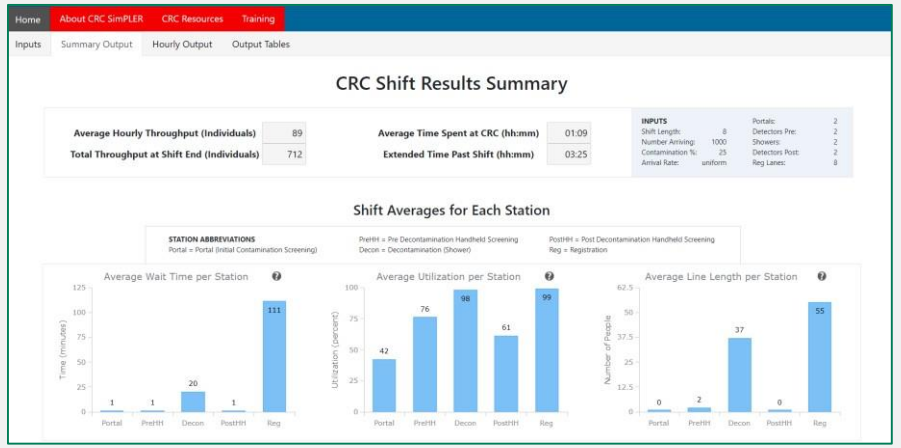
Simulation Program for Leveraging and Evaluating Resources

CRC SimPLER Features

Community **R**eception **C**enter **Sim**ulation **P**rogram for **L**everaging and **E**valuating **R**esources

Planning tool that allows for:

- **Throughput calculations for radiation monitoring and decontamination.**
- **Integration of real exercise time data.**
- **Easy use by Public Health and Emergency Management with no end user cost:**
  - Graphical outputs
- **Flexibility and scalability:**
  - Adjustable CRC capabilities (Basic models to more advanced)
  - Allows for addition of new stations at CRCs
  - Updatable as timing data collected



Uses MATLAB ® and Simulink ® Software

MATLAB and Simulink Release 2017b, The MathWorks, Inc., Natick, Massachusetts, United States.

CRC SimPLER URL

- https://ephtracking.cdc.gov/Applications/simPler/home

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24 Hour Radiological Emergency Assistance Telephone Number

512-458-7460

Use for Reporting of

Incidents, Emergencies, and Accidents Involving Radioactive Materials, Radiation Producing Machines, Vehicles or Packages Marked “Radioactive” or “Caution Radioactive”

NOTICE: This number shall be used for Emergency Reporting only.

Routine business matters call: 512-834-6770

E-Mail: RAMASSIST@dshs.Texas.gov

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DEPARTMENT OF STATE HEALTH SERVICES

RADIATION UNIT MC 1986

P.O. Box 149347

Austin, TX 78714-9347

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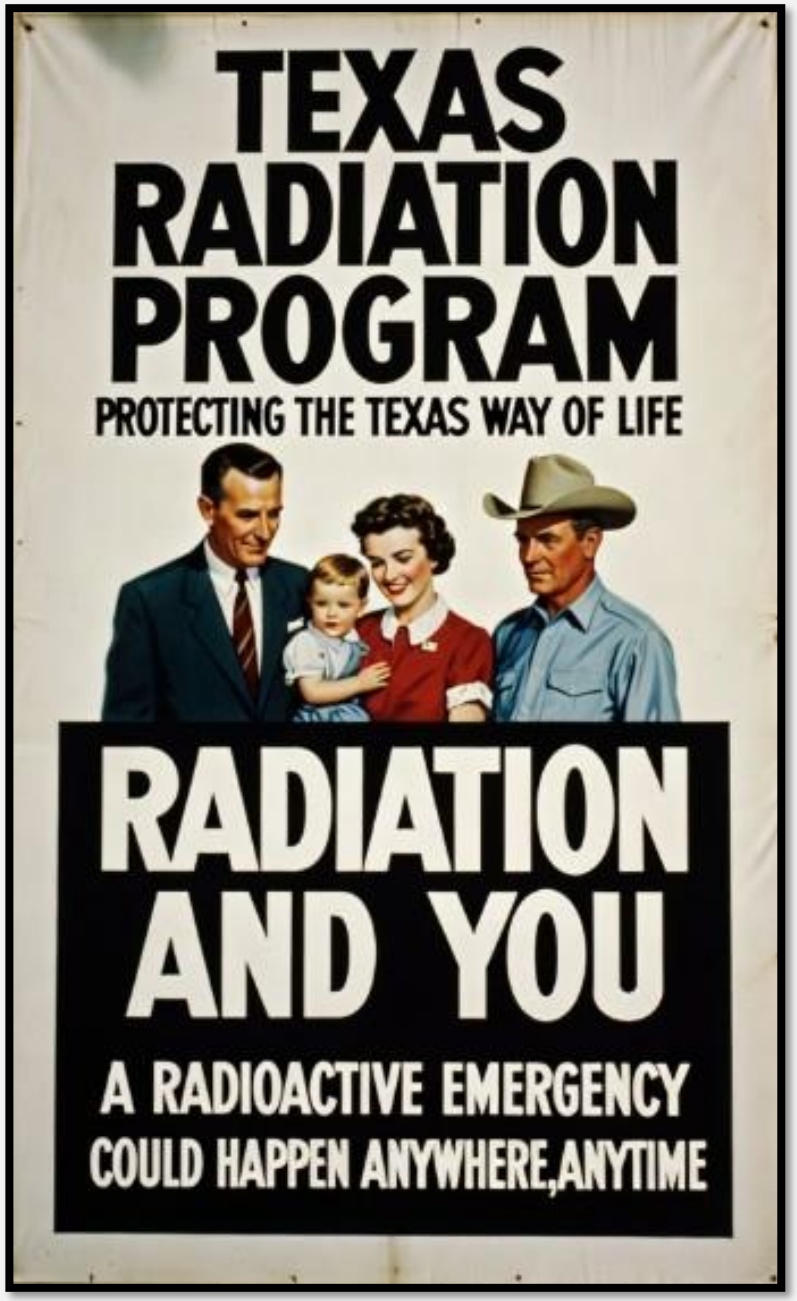
Questions?

The State Radiation Control Program is a key resource for implementing the CDC radiological population monitoring guidance.



Thank you!

March 19th, 2026

Clint Taylor

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