



More than drug take backs and cabinet locks

## Medication Abuse Prevention

CSN Webinar, 12/19/11

Melissa Heinen, Salus Consulting LLC

Salusconsultingllc@gmail.com

## Presentation Outline

- Review the 3 levels of prevention
- Compare and contrast passive versus active interventions
- Highlight the 3 E's
- Overview of Haddon's Matrix
- Compare and contrast IVP programs
- Identify possible roles for IVP and MCH staff

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Melissa Heinen, Salus Consulting LLC

Salusconsultingllc@gmail.com

## Prevention



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Salusconsultingllc@gmail.com

## 1. Primary Prevention

**Prevents the event** before it happens<sup>1</sup>

Examples:

- Not abusing medications
- Not taking someone else's medication
- Not taking their own medication when and how they want (self medicating)

<sup>1</sup> – US Centers for Disease Control and Prevention

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Melissa Heinen, Salus Consulting LLC

Salusconsultingllc@gmail.com

## 2. Secondary Prevention

**Identifies the event before the person notices anything wrong (screenings) to prevent a bad outcome<sup>1</sup>**

Examples:

- Not becoming addicted
- Not having a medical emergency (harm reduction)
- Not driving while intoxicated/high

<sup>1</sup> – US Centers for Disease Control and Prevention

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Melissa Heinen, Salus Consulting LLC

Salusconsultingllc@gmail.com

## 3. Tertiary Prevention

**Prevents damage, long-term impacts, complications and/or deaths, and improves the quality of life<sup>1</sup>**

Examples

- Enrolling in treatment or recovery
- Reversing overdosing
- Minimizing medical disability

<sup>1</sup> – US Centers for Disease Control and Prevention

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Melissa Heinen, Salus Consulting LLC

Salusconsultingllc@gmail.com

## Active Versus Passive



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Melissa Heinen, Salus Consulting LLC

Salusconsultingllc@gmail.com

## Active Versus Passive

Healthy Behavior Choice	Active	Passive
Prevent burns from hot water	Teach your child to never turn on the water without you present.	Turn down your hot water heater to a safe temperature.
Prevent burns from hot water	Turn down your hot water heater to a safe temperature.	Purchase a hot water heater that is already set to a safe temperature.

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Melissa Heinen, Salus Consulting LLC

Salusconsultingllc@gmail.com

## Active Versus Passive

Healthy Behavior Choice	Active	Passive
Patient: Decrease amount of unused medications in the home	Educate patients to ask their doctor for fewer pills	Have doctors only prescribe as many pills as necessary
	Educate patients to get rid of unused medication	

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Melissa Heinen, Salus Consulting LLC

Salusconsultingllc@gmail.com

## Active Versus Passive

Healthy Behavior Choice	Active	Passive
Physician: Access patient medication prescribing history	Encourage doctors to use prescription monitoring program (PMP)	Have updated patient PMP information automatically included in patient chart at each visit.
Physician: Appropriately determine patient level of pain and prescribes the right type and amount of pain medication.	Educate doctors on the increase in medication abuse and the need to better assess patient need and appropriate type and amount of medication.	Require physicians to use prescribing guidelines to assist in assessing need and determining amount of medication needed (decision tree).

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Melissa Heinen, Salus Consulting LLC

Salusconsultingllc@gmail.com

## What Do You Do?

- Get rid of leftover medication in a local drug take back event.
- Ask your doctor for fewer pain pills after a procedure.
- Request from your doctor information about alternative therapies to address your pain.
- Store your medication in a lock box.

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## Most People

- The more action required by the individual the less effective the intervention will be.

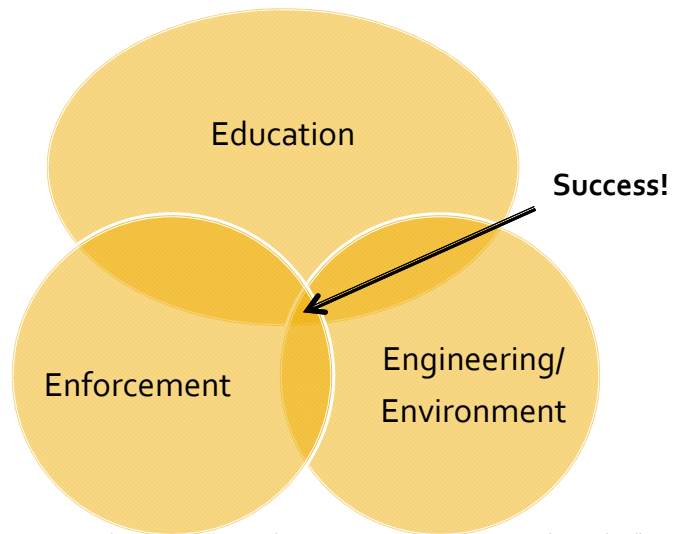


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Melissa Heinen, Salus Consulting LLC

Salusconsultingllc@gmail.com

## Three E's



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Salusconsultingllc@gmail.com

Systematic method to identify prevention strategies

## Haddon's Matrix

Injury prevention: competencies for unintentional injury prevention professionals / Alton L. Thygeson, Steven M. Thygeson, Justin S. Thygeson -- 3rd Ed, 2008.

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Melissa Heinen, Salus Consulting LLC

Salusconsultingllc@gmail.com

# Haddon Matrix

	Pre Event (Primary Prevention)	Event (Secondary Prevention)	Post Event (Tertiary Prevention)
Human			
Agent (drug/medicine)			
Physical environment			
Social environment (policies)			

## 3 Steps

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Melissa Heinen, Salus Consulting LLC

Salusconsultingllc@gmail.com

# Step 1. Place known risks or causal factors in appropriate stage

Step 1 - Medication Abuse Examples	Pre Event (Primary Prevention)	Event (Secondary Prevention)	Post Event (Tertiary Prevention)
Human	Perceives abusing medication as "safe."	State of mind – depressed, in a lot of pain, or wanting to have a "trip of a life time."	Unable to provide accurate history of what was abused.
Agent (drug/medicine)	Toxicity of product (example, long half life time varies from person to person (8-59 hours, methadone).	Amount taken. Taken with other substances.	Limited, timely toxicology screening available.
Physical environment	Prescriptions on the rise / more available.	No one around is sober.	Reversal agent (Naloxone) unavailable.
Social environment (norms and policies)	Inexpensive pain medication. Any physician can prescribe pain medication.	Peer group normalizes and encourages behavior.	Peers do not call for help because they are afraid they will be arrested.

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Melissa Heinen, Salus Consulting LLC

Salusconsultingllc@gmail.com



## Step 2. Identify Interventions

- Determine an effective intervention or prevention strategies for the risk or causal factor identified in Step 1.
- Use Haddon's 10 strategies to help identify interventions.

## Step 2. Haddon's 10 Strategies

1. **Prevent the creation** of the hazard.
2. **Reduce the amount** of the hazard.
3. **Prevent the release** of the hazard that already exists.
4. **Modify the rate** of the spatial distribution of release of the hazard. (This one is hard for most people to understand, an example related to medication abuse might be packing medications in individual units instead of bottles.)
5. **Separate, in time or space**, the hazard from that which is to be protected.

## Step 2. Haddon's 10 Strategies

6. **Separate the hazard** from that which is to be protected by the material barrier.
7. **Modify relevant basic qualities** of the hazard.
8. **Make what is to be protected more resistant** to damage from the hazard.
9. **Begin to counter the damage** already done by the hazard.
10. **Stabilize, repair and rehabilitate** the object of the damage.

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Melissa Heinen, Salus Consulting LLC

Salusconsultingllc@gmail.com

## Step 2. Identify Interventions

Risk/Causal Factor	Possible Intervention
Perceives abusing medication as "safe."	Education campaign to increase perception of risk.
Toxicity of product. (example, long half life time varies from person to person (8-59 hours, methadone)).	Develop medication with short, less variable half life.
Prescriptions on the rise / more available.	Limit the dose and number of pills prescribed at each visit. Close "pill mills."
Inexpensive pain medication. Any physician can prescribe it for pain.	Implement prescribing guidelines. Develop PMP and encourage use of PMP by all prescribers.
State of mind – depressed, in a lot of pain, wanting to have a "trip of a life time."	Promote suicide hotline numbers. Frequent check-ins on patients with chronic/acute pain.
Amount taken. Mix with other substances.	Enforce laws related to "sharing or selling" medication. Educate about risks of taking medication with alcohol.

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Melissa Heinen, Salus Consulting LLC

Salusconsultingllc@gmail.com

## Step 2. Identify Interventions

Risk/Causal Factor	Possible Intervention
No one around sober.	Harm reduction – Designated partying friend.
Peer group normalizes and encourages behavior.	Social norms marketing.
Unable to provide accurate history of what was abused.	Educate EMS to assess patient and treat symptoms.
Limited, timely toxicology screening available.	Educate health care professionals to consult with toxicology experts to manage symptoms (poison centers).
Reversal agent (Naloxone) unavailable.	Target and distribute naloxone kits to prior overdose victims.
Peers do not call for help because they are afraid they will be arrested.	Pass "good Samaritan laws."

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Melissa Heinen, Salus Consulting LLC

Salusconsultingllc@gmail.com

## Step 3. Select and Prioritize

- **Select and prioritize** your interventions based on:
  - Effectiveness (prior history, evidence-based, cost effective)
  - Passiveness versus activeness
  - Funding or organizational mission (for example, preventing abuse or overdoses)
  - Feasibility
  - Impact on personal freedom
  - Equitable impact regardless of socio-economic status
  - Any other identified criteria
- **Put your selected interventions in the matrix box.**

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Salusconsultingllc@gmail.com

## Lessons Learned



### Motor Vehicle Crash Deaths

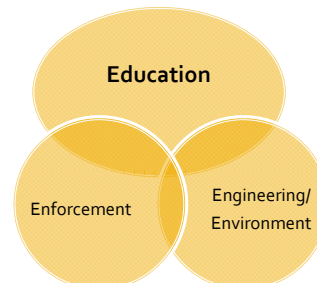
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Salusconsultingllc@gmail.com

## Motor Vehicle Crash Deaths

- Education campaign
  - Buckle up
  - Designated driver
  - Don't drive while drowsy
  - 55 and stay alive



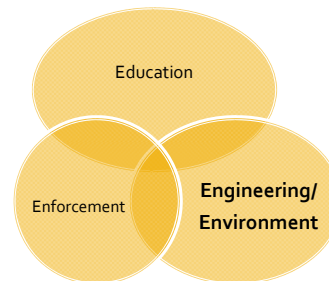
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Salusconsultingllc@gmail.com

## Motor Vehicle Crash Deaths

- Engineering safer cars
  - Bumpers
  - Dashboards and steering column
  - Seatbelts
  - Airbags
  - Rollover bars
  - Blind spot elimination
  - Rear cameras
  - Automatic headlights
  - Crash tests



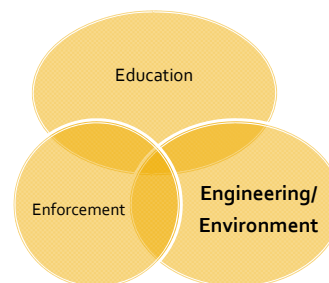
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Salusconsultingllc@gmail.com

## Motor Vehicle Crash Deaths

- Engineering safer roads
  - Rumble strips
  - Barriers
  - Grass median
  - Traffic lights and signage
  - Traffic circles
  - Exit ramp crash impact barriers
  - Reflective lane tape
  - Shoulders



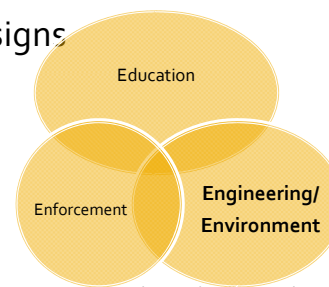
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Salusconsultingllc@gmail.com

## Motor Vehicle Crash Deaths

- Environment
  - Improved emergency response
  - Cell phones
  - Call boxes
  - Weather radio station update signs



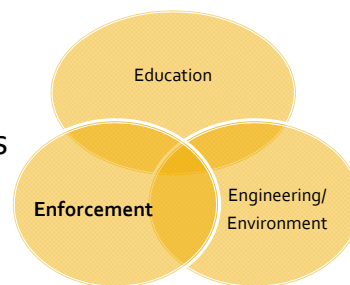
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Salusconsultingllc@gmail.com

## Motor Vehicle Crash Deaths

- Enforcement
  - Speed laws
  - Seatbelt and safety seat laws
  - Drinking and driving laws
  - Graduated licenses
  - Work-related driving policies
  - Driving record tied to insurance rates and licensing

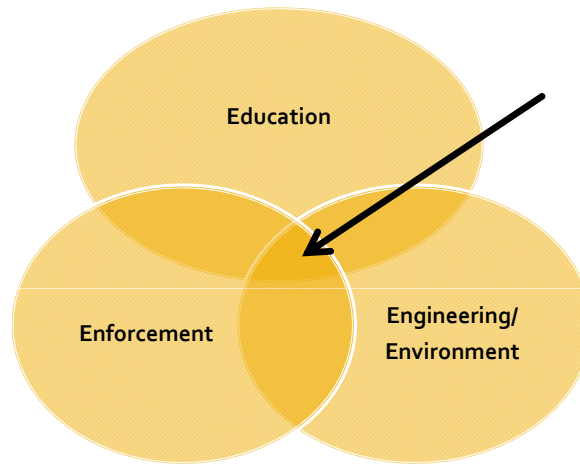


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## Successful Programs



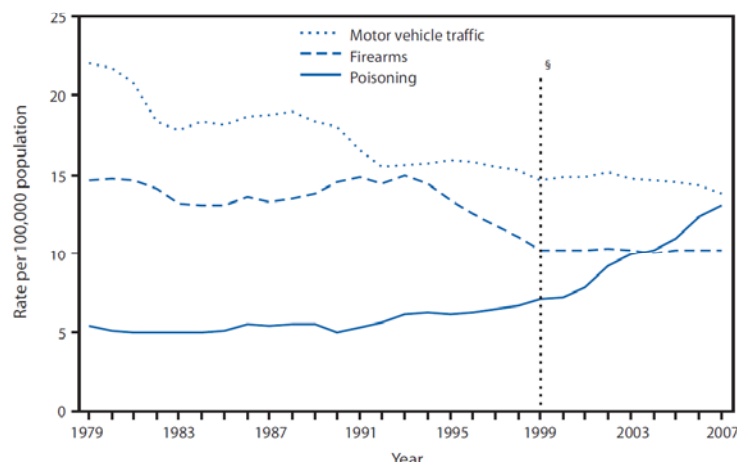
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## Motor Vehicle Crashes Deaths & Medication Overdose Deaths

Death Rates\* for the Three Leading Causes of Injury Death<sup>†</sup> — United States, 1979–2007 [www.cdc.gov](http://www.cdc.gov)



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Melissa Heinen, Salus Consulting LLC

Salusconsultingllc@gmail.com

## Motor Vehicle & Medication



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## Motor Vehicles & Medication

### Similarities

Used and needed by most people

Common, everyday items

Great benefit when used the right way

Risks when used the wrong way

Some people seek out "thrill"

Leading cause of injury deaths

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Salusconsultingllc@gmail.com



# Motor Vehicle & Medication

Differences	
Motor vehicle	Medication
Pass test to drive	Medication available at any age
Spend time researching car purchase (costs, safety, etc.)	Very little time spent by patient/user researching medication
Public awareness of risk	Little, but growing public awareness of risk
Very public activity	No one knows/sees
People held accountable by other drivers, law enforcement & insurance companies	No obvious "public" accountability
Significant funding and resources towards preventing deaths	Limited funding and resources with less organization
Decades of organized effort	New effort focusing on this emerging issues

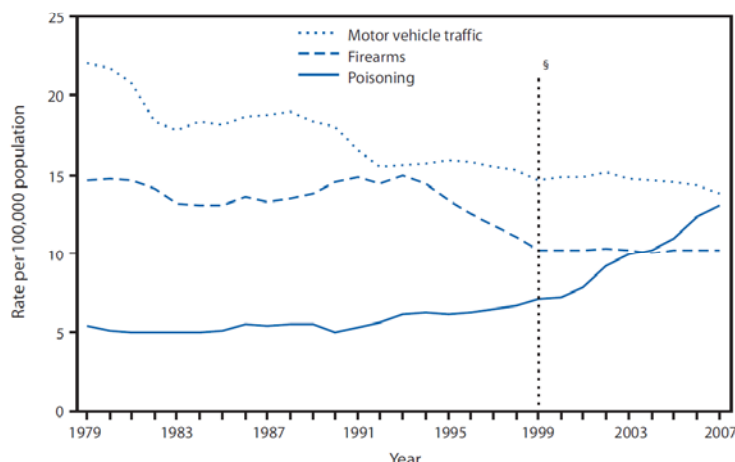
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## Preventing Medication Abuse

# IVP and MCH Role

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Melissa Heinen, Salus Consulting LLC

Salusconsultingllc@gmail.com

## Public Health Role

- Determine and use clear and specific definitions of prescription drug abuse, misuse, overdose, etc.
- Produce and monitor risk/causal data and outcome data.
- Use public health theory and tools to frame and approach this issue.

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Melissa Heinen, Salus Consulting LLC

Salusconsultingllc@gmail.com

## Public Health Role

- Develop and implement public education campaigns to change social norms and promote safe storage, responsible disposal, signs and symptoms of overdose, etc.
- Monitor Medicaid/Medicare data for diversion, abuse and overprescribing.
- Support PMPs and cross-state data sharing, e-prescribing, good Samaritan laws.

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Melissa Heinen, Salus Consulting LLC

Salusconsultingllc@gmail.com

## MCH/IVP Program Role

- Facilitate taskforce of stakeholders (traditional and nontraditional).
  - Identify need (audience, event to prevent).
  - Develop plan (using public health/injury prevention tools).
  - Establish sound measurements of success.
- Provide accurate trend/surveillance data.
  - Secure medication abuse/misuse questions in statewide school and adult health surveys.
  - Work with health care facilities to accurately code for medication abuse/misuse visits (ICD diagnosis and External cause codes).

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Melissa Heinen, Salus Consulting LLC

Salusconsultingllc@gmail.com

## MCH/IVP Program Role

- Frame issue as an “injury event” to assist in reducing stigma of medication overdose issue (“them”)
- Work with adolescent health providers to incorporate screening (SBIRT)
- Promote prescribing guidelines with state associations (emergency, family, and pediatric medicine and dental)

## MCH/IVP Program Role

- Work with state pharmacy board to support monitoring of illegal dispensing and purchasing of prescription medication.
- Work with state attorney generals to address prescribing fraud, illegal Internet pharmacies, etc.
- Share promising program information with state Medicare/Medicaid programs (case management of high risk clients).

## MCH/IVP Program Role

- Work with OB/GYN providers to screen pregnant woman for abuse (prenatal care visits).
- Support the application for substance abuse treatment funding.
- Develop and implement a social-norming campaign targeting general public.
- Partner with employers and colleges and universities to address the misconceptions related to the risk of misuse and abuse of medication.

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Melissa Heinen, Salus Consulting LLC

Salusconsultingllc@gmail.com

## Tools You Can Use



	Pre Event (Primary Prevention)	Event (Secondary Prevention)	Post Event (Tertiary Prevention)
Human			
Agent (drug/medicine)			
Physical environment			
Social environment (policies)			

3 E's

Lessons Learned

Levels of Prevention

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## Questions?

**Melissa Heinen RN, MPH, CPH**  
Salus Consulting, LLC  
*The art and science of public health*

Contact:  
612-801-1206  
salusconsultingllc@gmail.com

