



2021 National EMS Education Standards

A presentation for the Idaho EMS Advisory Committee

Why Me?

- Steve Cole, MEd, NRP
- rcole@adacounty.id.gov
- AS and BS from ECU
- MEd from ASU
- Recommended for committee by Dr. Bill Young



Background



- Last released in 2009
- Update started in 2019
- Released in December 2021

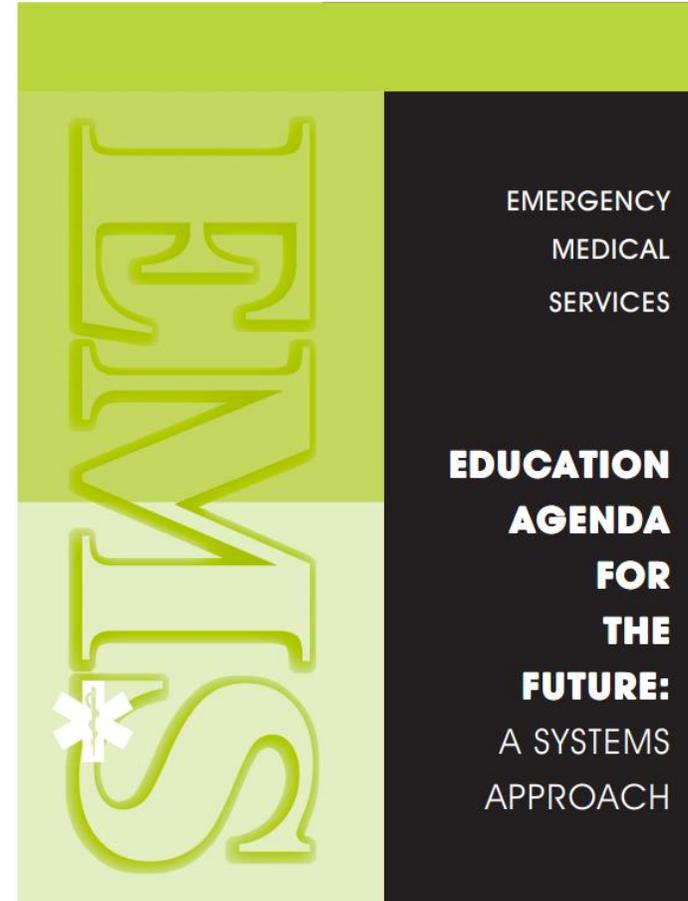
Who's involved

- Funded by NHTSA (Office of EMS)
 - HHRC
 - EMSC
- Led by NAEMSE
- Coordinated through the RedFlash Group

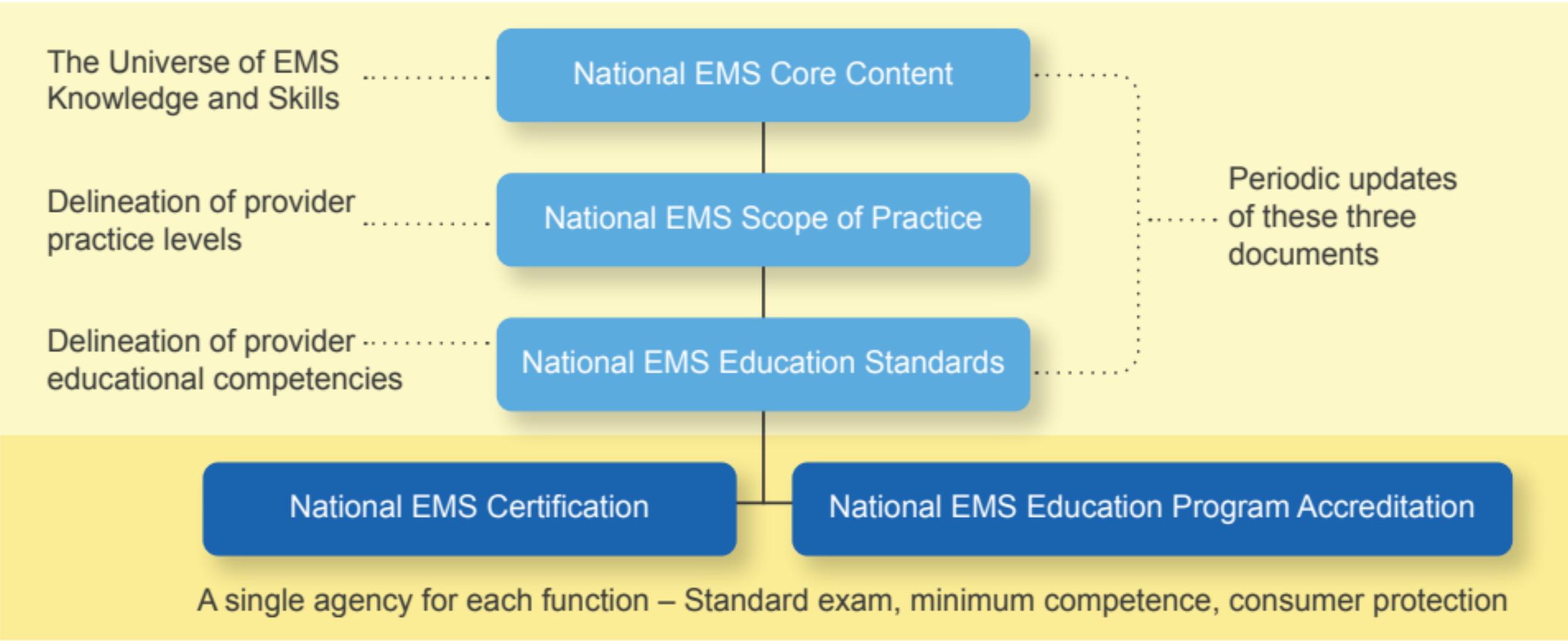


The Big Picture

- Part of the *EMS Education Agenda for the Future: A systems Approach*
- These elements include:
 - National EMS Core Content
 - National EMS Scope of Practice Model
 - National EMS Education Standards
 - National EMS Program Accreditation
 - National EMS Certification



EMS Education Agenda for the Future: A Systems Approach



What is the impact of the standards?



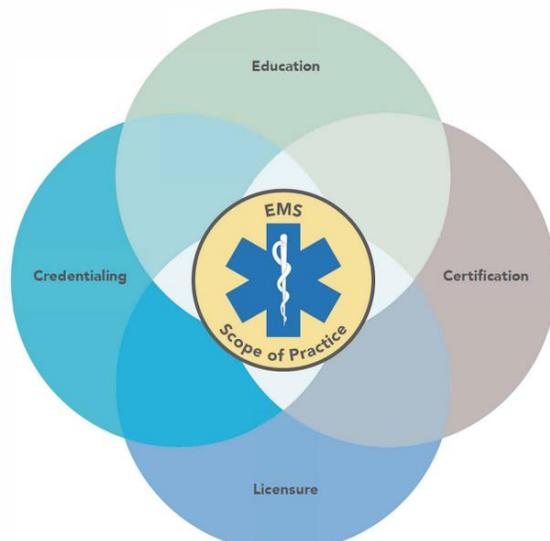


What the
Standards are
not:

- A law, rule, or regulation
- A curricula
- Mandatory (but are specifically referenced in many state laws and a requirement for accreditation)

A tale of two projects

2019 National EMS Scope of Practice Model



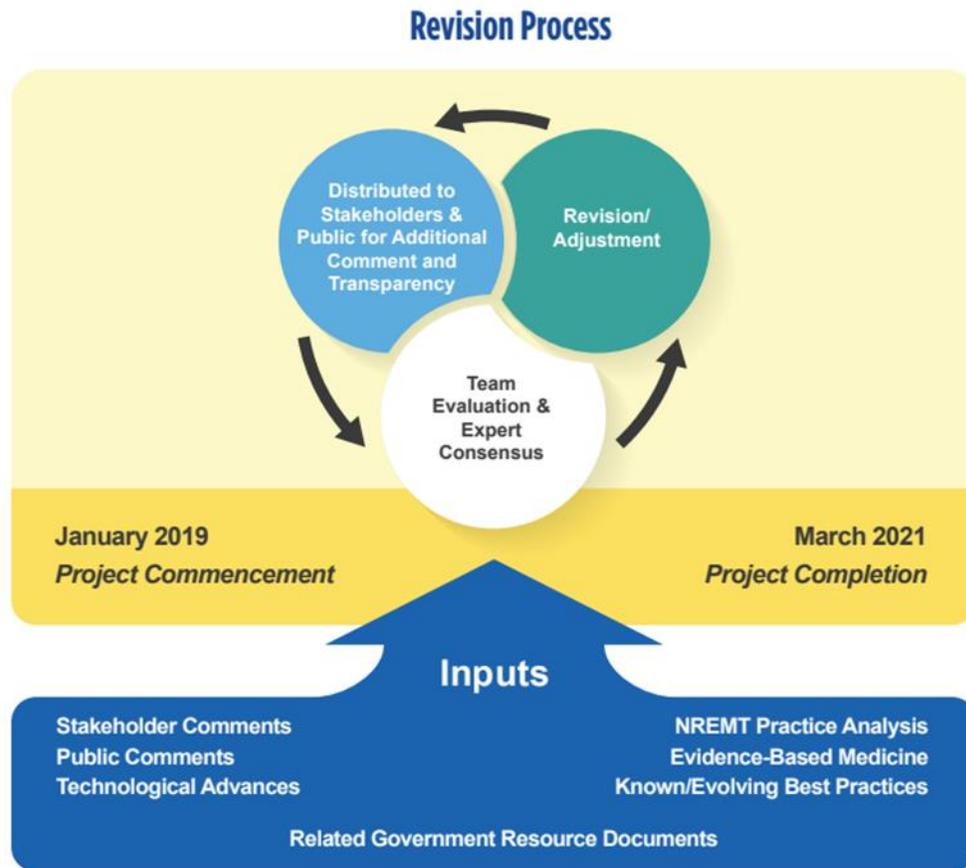
Minimum practices and competencies

2021 National EMS Education Standards



Minimum Content and Competencies

The Process



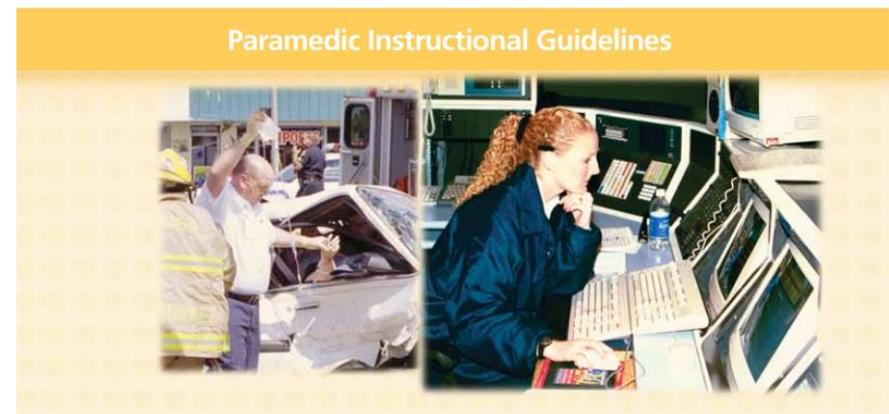
- Multiple committee meetings
- Multiple public comment periods
- Stakeholder comment session
- Committee working groups

Where are the Instructional Guidelines?

- “With input from many stakeholders, the team chose **not to update the separate Instructional Guidelines** for each clinician level originally published as companion documents to the 2009 Standards” (p.18)



NATIONAL EMERGENCY MEDICAL SERVICES
EDUCATION STANDARDS



Accreditation

- Accreditation is required for Paramedic programs currently.
- Accreditation will be required for AEMT programs in 2025.
- No current plans for accreditation at the EMT/EMR level.



Credible
education
through
accreditation

Degree Discussion

- “*Early in the process*, the team was advised that the debate for or against degrees was **beyond the scope of the project** as the 2021 National EMS Education Standards **do not address degree requirements.**” (p.19)



Specialty Certification (p.19)



INTERNATIONAL BOARD
OF SPECIALTY CERTIFICATION



Nomenclature (p.19)

- What is the proper nomenclature of the EMS profession and EMS clinicians?
 - EMR, EMT , AEMT, Paramedic?
 - Different levels of “Paramedic”?
- Not in the scope of the project, but a vigorous discussion nationally.
- 2017 – NEMSAC made 3 recommendations
 - #1: Officially recognize and use the term “paramedicine,”
 - #2: : Officially recognize and promulgate an all-inclusive standard generic term nationally to describe all health care providers performing within the field of paramedicine, regardless of certification or licensure.
 - #3: Create a nomenclature framework and develop a work plan to address the designation of provider level nomenclature.



**National Registry of
Emergency Medical Technicians®**
THE NATION'S EMS CERTIFICATION™

Continuing Education Requirements

Accreditation of AEMT Programs (p.19)

- The 2019 National EMS Scope of Practice Model subject matter expert panel recommended requiring AEMT program accreditation by January 1, 2025
- The Education Standards revision team supports this recommendation



Credible
education
through
accreditation

Emerging Technologies (p.19)

There are many new and emerging technologies in healthcare.

- EMS-POCUS
- Blood Products
- Simple Thoracostomies
- And more....
- **“Widespread education based on specific technologies should be decided at the local or state level. Only after national adoption and inclusion in a practice analysis should technologies be included in the National EMS Education Standards and National EMS Scope of Practice Model” (p. 20)**
 - Write standards from an inclusive instead of a prescriptive model

Emerging Technologies (p.16)

- “Credentialed providers have been taught and assessed on skills and actions that are beyond the entry-level education and training of an EMS school. For instance, ***if allowed by the state***, ultrasound may be a role performed after proper credentialing by the local EMS medical director and jurisdiction, even though ultrasound is not included in the National EMS Scope of Practice Model or the National EMS Education Standards.” (p.16)



Instructional Practices

- Simulation (p.20)
 - “The practice of allowing students to memorize and verbalize a check sheet is no longer acceptable and should be changed.”
 - Escalating *Simple to Complex* simulation
 - Permissible substitution for infrequent or unattainable clinical scenarios (i.e. childbirth, intubation, etc)
- Shadowing (AKA clinicals and preceptorships) (P. 20)
 - “Shadowing” is more important to the educational experience than ever.

Instructional Practices (Continued)

- Interprofessional Education (p.21) : “Individual EMS instructors may not possess the expertise or knowledge to teach all subjects within the revised Standards. **When this occurs, a subject matter expert should be enlisted for the given topic.**”
 - Public Health
 - Rescue
 - HAZ MAT
 - Incident Management
- The instructor should have a **proper background, relevant knowledge and a degree or a recognized and credible credential** in the topic.

Instructional Practices (Continued)

- Implicit Expectations (p.22)
 - **EVERY** illness, condition, or injury should be taught with the relevant anatomy, physiology, pathophysiology, assessments and accepted treatments accompanying the material.

Program Duration

- “Course Length should be based on competency, not hours” (p.58)
- HOWEVER consensus opinion on *minimum* clock hours to cover material.
 - EMR 48 hours
 - EMT 150 Hours
 - AEMT 200 Hours *BEYOND* content in EMT
 - Paramedic: Reference CoAEMSP Standards and





Locally Identified Topics (p.22)

- Education Standards set minimum requirements nationally.
- Often there is local need for enhanced education. The Education Standards do not prevent this.
- “Locally Identified content” appears in almost every educational standard.



The Big Changes

Format (p. 11-12)

Table 1: Format of National EMS Education Standards

	EMR	EMT	AEMT	Paramedic
Content Area	Competency	Competency	Competency	Competency
Elaboration of Knowledge	Additional knowledge related to the competency			
	Clinical behaviors and judgments			
	Educational Infrastructure	Educational Infrastructure	Educational Infrastructure	Educational Infrastructure

Behavioral / Psychiatric (p.23)

- The SEGs include more information regarding **acute** behavioral crisis and mental health disorders.
- Greater *depth and breadth* of knowledge were recommended for areas involving potential safety hazards to patients and EMS clinicians.
- Other areas were simplified.

Then and Now

	EMR	EMT	AEMT	Paramedic
Psychiatric or Behavioral Emergencies (Include psychosocial aspects of age-related assessment and treatment modifications for the major or common diseases and/or emergencies associated with pediatric and geriatric patients)	<ul style="list-style-type: none"> Recognition of behaviors that pose a risk to the EMR, patient or others Recognition of suicide risk 	<ul style="list-style-type: none"> Basic principles of the mental health system (S,S) Patterns of violence, abuse and neglect (S,S) Acute psychosis (F,F) Suicide ideation (F,F) Excited delirium (F,F) Anxiety (F,F) Depression (F,F) Medical fear (F,F) Substance use disorder (F,F) PTSD (F,F) Other psychiatric/behavioral disorders to be determined locally (S,S) 	<ul style="list-style-type: none"> Basic principles of the mental health system (S,S) Patterns of violence, abuse and neglect (F,F) Acute psychosis (F,F) Suicide ideation (C,C) Excited delirium (F,F) Anxiety (F,F) Depression (F,F) Medical fear (F,F) Substance use disorder/addictive behavior (C,C) PTSD (F,F) Other psychiatric/behavioral disorders to be determined locally (S,S) 	<ul style="list-style-type: none"> Basic principles of the mental health system (S,S) Patterns of violence, abuse and neglect (C,C) Suicide ideation (C,C) Excited delirium (C,C) Anxiety (C,C) Depression (C,C) Medical fear (F,F) Substance use disorder/addictive behavior (C,C) PTSD (C,C) Acute psychosis (C,C) Cognitive disorders (F,F) Thought disorders (F,F) Mood disorders (F,F) Neurotic disorders (F,F) Somatiform disorders (F,F) Factitious disorders (F,F) Personality disorders (F,F) Other psychiatric/behavior disorders to be determined locally (S,S)

	EMR	EMT	AEMT	Paramedic
Psychiatric	Simple depth, simple breadth Recognition of <ul style="list-style-type: none"> Behaviors that pose a risk to the EMR, patient or others 	EMR Material PLUS: Simple depth, simple breadth <ul style="list-style-type: none"> Basic principles of the mental health system Fundamental depth, foundational breadth Assessment and management of <ul style="list-style-type: none"> Acute psychosis Suicidal/risk Agitated delirium 	Same as Previous Level	AEMT Material PLUS: Anatomy, physiology, epidemiology, pathophysiology, psychosocial impact, presentations, prognosis, and management of Complex depth, comprehensive breadth <ul style="list-style-type: none"> Acute psychosis Agitated delirium Fundamental depth, foundational breadth <ul style="list-style-type: none"> Cognitive disorders Thought disorders Mood disorders Neurotic disorders Substance-related disorders / addictive behavior Somatiform disorders Factitious disorders Personality disorders Patterns of violence/abuse/neglect Organic psychoses

EMR

EMT

AEMT

Paramedic

Psychiatric or Behavioral Emergencies

- Recognition of behaviors that pose a risk to the EMR, patient or others
- Recognition of suicide risk

Patterns of violence, abuse and neglect (All Ages)

Acute psychosis
Suicide ideation
Excited delirium

- Basic principles of the mental health system (S,S)
- Patterns of violence, abuse and neglect (S,S)
- Acute psychosis (F,F)
- Suicide ideation (F,F)
- Excited delirium (F,F)
- Anxiety (F,F)
- Depression (F,F)
- Medical fear (F,F)
- Substance use disorder (F,F)
- PTSD (F,F)
- Other psychiatric/behavioral disorders to be determined locally (S,S)

- Basic principles of the mental health system (S,S)
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- Depression (F,F)
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- Substance use disorder/addictive behavior (C,C)
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- Depression (C,C)
- Medical fear (F,F)
- Substance use disorder/addictive behavior (C,C)
- PTSD (C,C)
- Acute psychosis (C,C)
- Cognitive disorders (F,F)
- Thought disorders (F,F)
- Mood disorders (F,F)
- Neurotic disorders (F,F)
- Somatoform disorders (F,F)
- Factitious disorders (F,F)
- Personality disorders (F,F)
- Other psychiatric/behavior disorders to be determined locally (S,S)

Cultural Humility and Awareness

- “After graduation, can our students provide culturally competent, equitable and medically appropriate prehospital care to each and every patient no matter their background?” (p.23)



EMS Operations (p. 52 and 53)

- Should be taught by Subject Matter Experts (SME)
- Specific minimum requirements for:
 - Emergency Vehicle Operations
 - Incident Management
 - Mass Casualty Situations
 - Natural Disasters
 - ASHER
 - Other events
 - Landing Zone Operations
 - Rescue Operations
 - Hazardous Materials





Public Health (p.25)

- “The new standards are intended to prepare the **entry-level provider** to **work alongside** and collaboratively with specially trained community paramedics, social workers, public health organizations, health care entities, emergency management agencies and non-governmental organizations in their day-to-day duties and **lay the foundation for advancement into specialized roles.**”
 - * Specific infectious diseases , “Emerging infectious disease” and “other infectious diseases to be determined locally” covered in medical

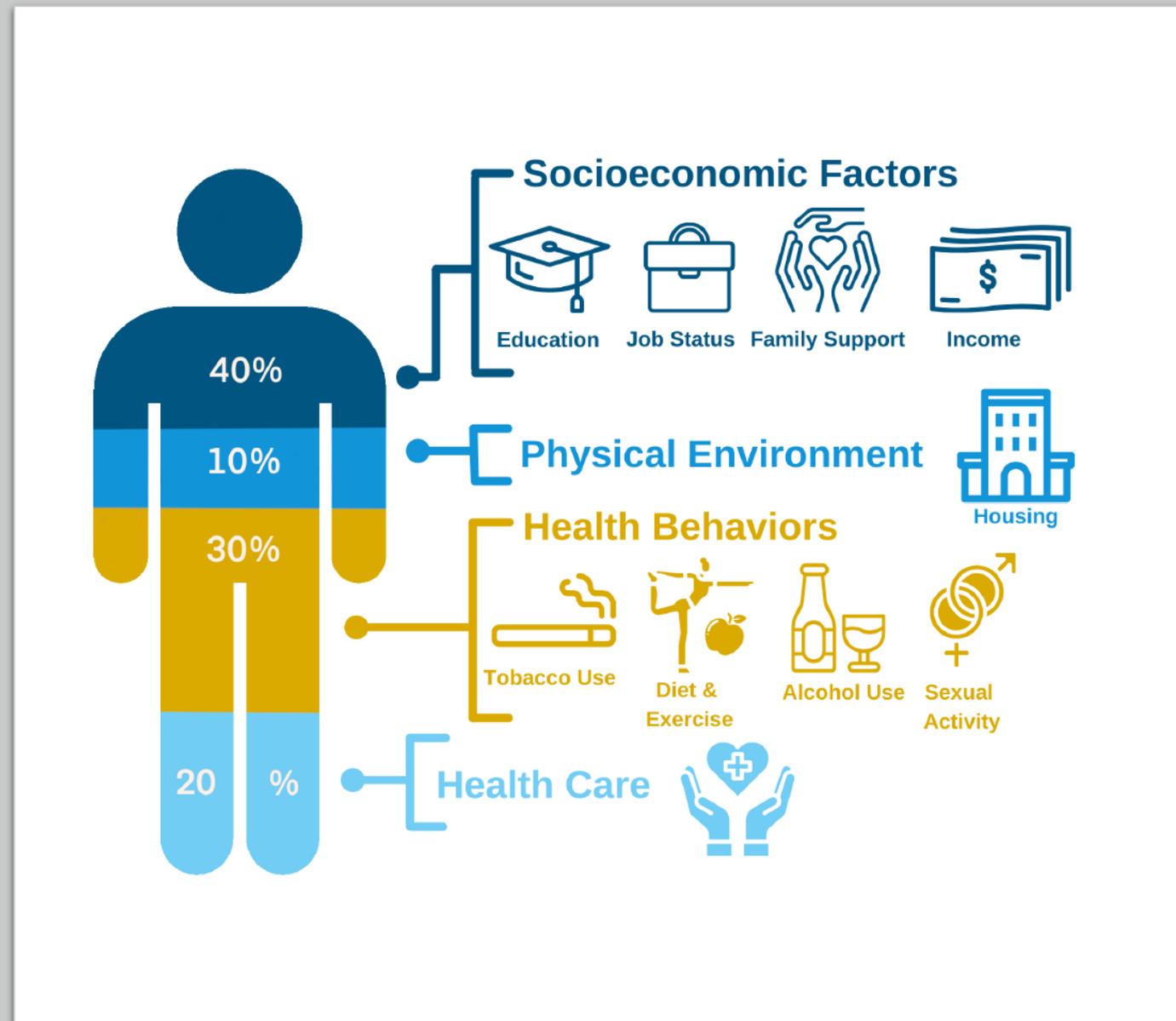
Then and Now

	EMR	EMT	AEMT	Paramedic
Public Health	Have an awareness of local public health resources and the role EMS personnel play in public health emergencies.	Uses simple knowledge of the principles of illness and injury prevention in emergency care.	Uses simple knowledge of the principles of the role of EMS during public health emergencies.	Applies fundamental knowledge of principles of public health and epidemiology including public health emergencies, health promotion, and illness and injury prevention.

	EMR	EMT	AEMT	Paramedic
Public Health	Has an awareness of local public health resources and their role in public health.	Applies knowledge of the principles of public health epidemiology including public health emergencies, public health monitoring, health promotion and illness and injury prevention.	Same as EMT level	Applies knowledge of principles of public health and epidemiology including public health emergencies, health promotion and illness and injury prevention.
Public Health Overview	<ul style="list-style-type: none"> • EMS roles in public health (S,S) • Infection prevention and control (S,S) • Human trafficking (S,S) 	<ul style="list-style-type: none"> • EMS roles in public health (S,S) • Infection prevention and control (S,S) • Human trafficking (S,S) • EMS EHR reporting and data collection (S,S) • Governmental/ nongovernmental roles & resources (S,S) • Public health mission and goals (S,S) • Social, geographic, economic, demographic determinants of health (S,S) • Patient and community education (S,S) • Injury prevention and wellness (S,S) • Unique pediatric, geriatric and special populations public health concerns (S,S) • Screenings and vaccinations/ immunizations (S,S) 	<ul style="list-style-type: none"> • EMS roles in public health (S,S) • Infection prevention and control (S,S) • Human trafficking (S,S) • EMS EHR reporting and data collection (S,S) • Governmental/ nongovernmental roles & resources (S,S) • Public health mission and goals (S,S) • Social, geographic, economic, demographic determinants of health (S,S) • Patient and community education (S,S) • Injury prevention and wellness (S,S) • Unique pediatric, geriatric and special populations public health concerns (S,S) • Screenings and vaccinations/ immunizations (F,F) • Impacts of political, social and economic issues (F,F) • Infectious disease (F,F) 	<ul style="list-style-type: none"> • EMS roles in public health (C,F) • Infection prevention and control (F,F) • Human trafficking (S,S) • EMS EHR reporting and data collection (S,S) • Governmental/ nongovernmental roles & resources (S,S) • Public health mission and goals (S,S) • Social, geographic, economic, demographic determinants of health (S,S) • Patient and community education (S,S) • Injury prevention and wellness (S,S) • Unique pediatric, geriatric and special populations public health concerns (S,S) • Screenings and vaccinations/ immunizations (C,F) • Impacts of political, social and economic issues (F,F) • Infectious disease (C,F) • Patient disposition, selecting destination, ambulance transport (C,F) • Bioinformatics (C,F)

EMR	EMT	AEMT	Paramedic
<p>EMS roles in public health Public health mission and goals</p>	<p>Applies knowledge of the principles of public health epidemiology including public health emergencies, public health monitoring, health promotion and illness and injury prevention.</p>	<p>Same as EMT level</p>	<p>Applies knowledge of principles of public health and epidemiology including public health emergencies, health promotion and illness and injury prevention.</p>
<p>Infection prevention and control</p> <ul style="list-style-type: none"> • Human trafficking (S,S) 	<ul style="list-style-type: none"> • EMS roles in public health (S,S) • Infection prevention and control (S,S) • Human trafficking (S,S) • EMS EHR reporting and data collection (S,S) • Governmental/nongovernmental roles & resources (S,S) 	<ul style="list-style-type: none"> • EMS roles in public health (S,S) • Infection prevention and control (S,S) • Human trafficking (S,S) • EMS EHR reporting and data collection (S,S) • Governmental/nongovernmental roles & resources (S,S) 	<ul style="list-style-type: none"> • EMS roles in public health (C,F) • Infection prevention and control (F,F) • Human trafficking (S,S) • EMS EHR reporting and data collection (S,S) • Governmental/nongovernmental roles & resources (S,S)
<p>EMS EHR reporting and data collection</p>	<p>Governmental/nongovernmental roles & resources (S,S)</p>	<p>Governmental/nongovernmental roles & resources (S,S)</p>	<p>Governmental/nongovernmental roles & resources (S,S)</p>
<p>Governmental/nongovernmental roles & resources (S,S) (Healthcare Navigation)</p>	<p>Public health goals (S,S)</p> <p>Social, geographic, demographic determinants of health (S,S)</p> <p>Patient and community education (S,S)</p>	<p>Public health goals (S,S)</p> <p>Social, geographic, demographic determinants of health (S,S)</p> <p>Patient and community education (S,S)</p>	<p>Public health mission and goals (S,S)</p> <p>Social, geographic, economic, demographic determinants of health (S,S)</p> <p>Patient and community education (S,S)</p>
<p>Patient and community education Injury prevention and wellness</p>	<p>Injury prevention and wellness (S,S)</p> <p>Unique pediatric, geriatric and special populations public health concerns (S,S)</p> <p>Screenings and vaccinations/immunizations (S,S)</p>	<p>Injury prevention and wellness (S,S)</p> <p>Unique pediatric, geriatric and special populations public health concerns (S,S)</p> <p>Screenings and vaccinations/immunizations (F,F)</p> <p>Impacts of political, social and economic issues (F,F)</p>	<p>Injury prevention and wellness (S,S)</p> <p>Unique pediatric, geriatric and special populations public health concerns (S,S)</p> <p>Screenings and vaccinations/immunizations (C,F)</p> <p>Impacts of political, social and economic issues (F,F)</p>
<p>Screenings and vaccinations/immunizations</p>	<p>Screenings and vaccinations/immunizations (S,S)</p>	<p>Screenings and vaccinations/immunizations (F,F)</p>	<p>Screenings and vaccinations/immunizations (C,F)</p>
<p>Social, geographic, economic, demographic determinants of health</p>		<p>Paramedics: Patient disposition, selecting destination, ambulance transport</p>	

Knowing about all the public health factors that go into healthcare for our patients improves outcomes



The future of paramedicine

- The enhancements of the public health segment enable EMS providers to work alongside of other disciplines.
- The enhancements also lay the foundation of growth into specialty fields for paramedics
- The enhancements also help paramedics make safety and more informed decisions about alternative destinations and healthcare navigation for patients.



Pharmacology (p.25)

- “It is not enough to solely teach pharmacology in a traditional didactic manner. This skill should include didactic, psychomotor and affective instruction.”
- Increased emphasis on medication safety practices at all levels
 - i.e. medication cross checks
 - Medication skills during simulation
- Significant opportunities to practice
 - Simulation
 - Patient clinical experience
 - Adult, pediatric and geriatric concerns taught due to chance of medication errors in all populations

Then and Now

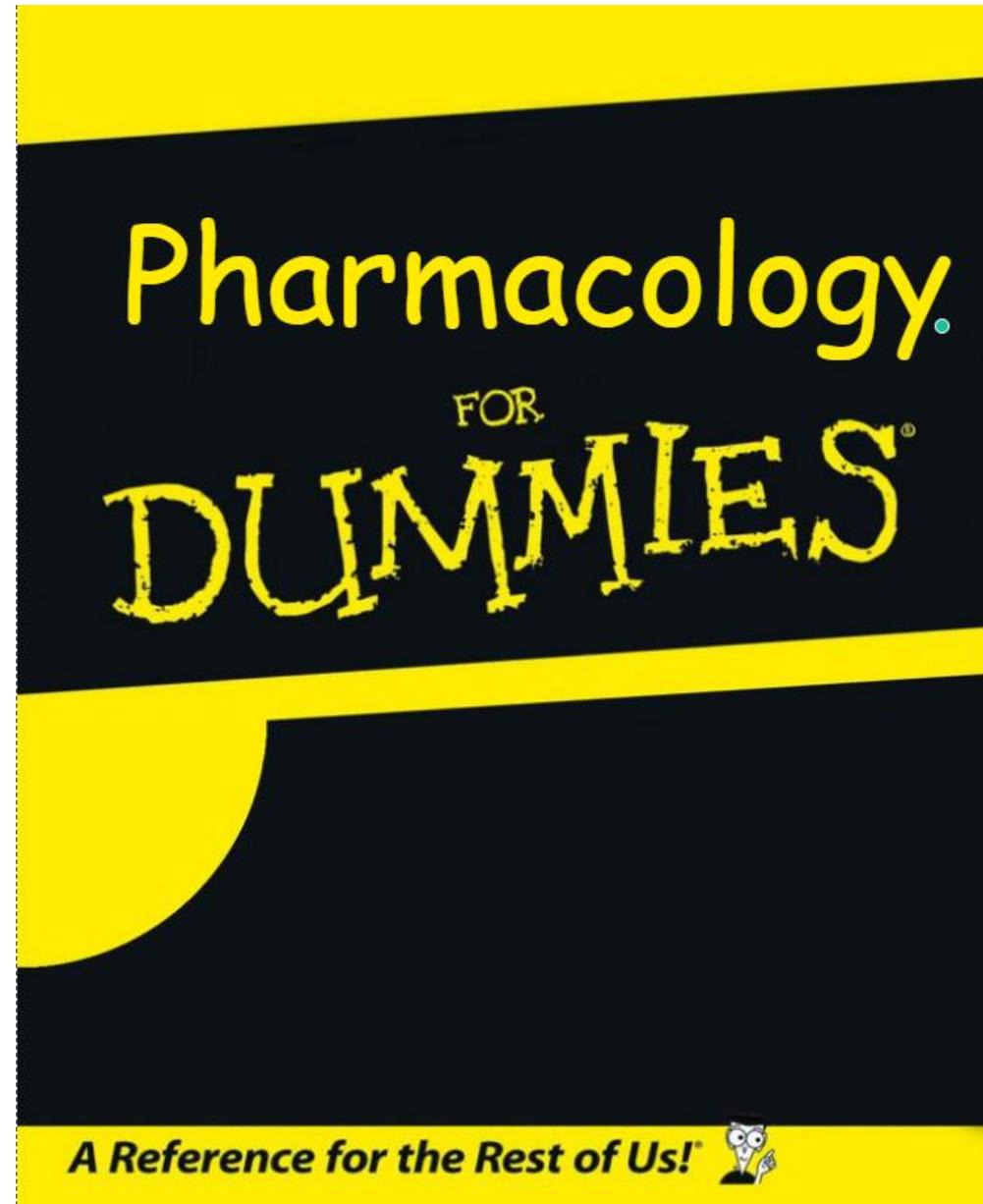
	EMR	EMT	AEMT	Paramedic
Medication Cross Checks and safety	Simple depth, limited breadth Practice of medication administration	EMR Material PLUS: Fundamental depth, foundational breadth Within the scope of practice of the EMT how to	EMT Material PLUS: Fundamental depth, foundational breadth	AEMT Material PLUS: Complex depth, comprehensive breadth
Intranasal and autoinjector administration	• Peer-administer medication	• Assist/administer medications to a patient	• Routes of administration • Within the scope of practice of the AEMT, administer medications to a patient	• Routes of administration • Within the scope of practice of the paramedic, administer medications to a patient

Use of tools/resources to facilitate safe administration of weight-based dosing.	• Use a Medication Cross Check procedure (F,F) • Use an autoinjector (S,S) • Use a unit-dose, premeasured intranasal device (S,S)	• Use a Medication Cross Check procedure (F,F) • Use an autoinjector (S,S) • Use a unit-dose, premeasured intranasal device (S,S)	• Use a Medication Cross Check procedure (F,F) • Use an autoinjector (S,S) • Use a unit-dose, premeasured intranasal device (S,S)	• Use a Medication Cross Check procedure (F,F) • Use an autoinjector (S,S) • Use a unit-dose, premeasured intranasal device (S,S)
EMT and Above: Provide pain management, including ethical and safety considerations	• Administer medications to a patient (F,F) • Provide pain management, including ethical and safety considerations (F,F) • Routes of administration (S,S)	• Administer medications to a patient (C,C) • Provide pain management, including ethical and safety considerations (C,C) • Routes of administration (C,C) • Resources for safe administration of weight-based dosing (F,F)	• Administer medications to a patient (C,C) • Provide pain management, including ethical and safety considerations (C,C) • Routes of administration (C,C) • Resources for safe administration of weight-based dosing (F,F)	• Administer medications to a patient (C,C) • Provide pain management, including ethical and safety considerations (C,C) • Routes of administration (C,C) • Resources for safe administration of weight-based dosing (F,F)

		EMR	EMT	AEMT	Paramedic
Pharmacology	Pharmacology	Uses knowledge of the medications that the EMR may administer in an emergency.	Applies knowledge of the medications the EMT may administer to a patient during an emergency and chronic or maintenance medications the patient may be taking.	Applies (to patient assessment and management) knowledge of the medications carried by AEMTs that may be administered to a patient during an emergency and chronic or maintenance medications the patient may be taking.	Integrates knowledge of pharmacology to formulate a treatment plan intended to mitigate emergencies and improve the overall health of the patient.
	Principles of Pharmacology	<ul style="list-style-type: none"> Medication safety (S,S) Kinds of medications used during an emergency (S,S) 	<ul style="list-style-type: none"> Medication safety (F,F) Medication legislation (F,F) Naming (F,F) Classifications (F,F) Storage and security (F,F) Medication interactions (S,S) Adverse drug reactions (S,S) Metabolism and excretion (F,F) Mechanism of action (F,F) Medication response relationships (F,F) 	<ul style="list-style-type: none"> Medication safety (C,C) Medication legislation (C,C) Naming (C,C) Classifications (C,C) Storage and security (C,C) Medication interactions (C,C) Adverse drug reactions (C,C) Pharmacokinetics (C,C) Pharmacodynamics (C,C) Schedules (C,C) 	<ul style="list-style-type: none"> Medication safety (C,C) Medication legislation (C,C) Naming (C,C) Classifications (C,C) Storage and security (C,C) Medication interactions (C,C) Adverse drug reactions (C,C) Pharmacokinetics (C,C) Pharmacodynamics (C,C) Schedules (C,C)
	Medication Administration	<ul style="list-style-type: none"> Use a Medication Cross Check procedure (S,S) Use an autoinjector (S,S) Use a unit-dose, premeasured intranasal device (S,S) Use of tools/resources to facilitate safe administration of weight-based dosing. 	<ul style="list-style-type: none"> Use a Medication Cross Check procedure (F,F) Use an autoinjector (S,S) Use a unit-dose, premeasured intranasal device (S,S) Administer medications to a patient (F,F) Provide pain management, including ethical and safety considerations (F,F) Routes of administration (S,S) 	<ul style="list-style-type: none"> Use a Medication Cross Check procedure (F,F) Use an autoinjector (S,S) Use a unit-dose, premeasured intranasal device (S,S) Administer medications to a patient (C,C) Provide pain management, including ethical and safety considerations (C,C) Routes of administration (C,C) Resources for safe administration of weight-based dosing (F,F) 	<ul style="list-style-type: none"> Use a Medication Cross Check procedure (F,F) Use an autoinjector (S,S) Use a unit-dose, premeasured intranasal device (S,S) Administer medications to a patient (C,C) Provide pain management, including ethical and safety considerations (C,C) Routes of administration (C,C) Resources for safe administration of weight-based dosing (F,F)

		EMR	EMT	AEMT	Paramedic
Pharmacology	Acute Medications	<ul style="list-style-type: none"> Names (S,S) Effects (S,S) Indications (S,S) Contraindications (S,S) Side effects (S,S) Routes of administration (S,S) Dosages (S,S) 	<ul style="list-style-type: none"> Names (F,S) Effects (S,S) Indications (F,S) Contraindications (F,S) Side effects (F,S) Routes of administration (F,S) Dosages (F,S) Actions (F,S) Complications (F,S) Interactions (F,S) 	<ul style="list-style-type: none"> Names (C,C) Effects (C,C) Indications (C,C) Contraindications (C,C) Side effects (C,C) Routes of administration (C,C) Dosages (C,C) Actions (C,C) Complications (C,C) Interactions (C,C) 	<ul style="list-style-type: none"> Names (C,C) Effects (C,C) Indications (C,C) Contraindications (C,C) Side effects (C,C) Routes of administration (C,C) Dosages (C,C) Actions (C,C) Complications (C,C) Interactions (C,C)
	Chronic or Maintenance Medications	No knowledge related to this competency is applicable at this level.	<p>Specific medication classes to be determined locally</p> <ul style="list-style-type: none"> Class names (S,S) Class indications (S,S) Class complications (S,S) Class side effects (S,S) Polypharmacy (S,S) 	<p>Specific medication classes to be determined locally</p> <ul style="list-style-type: none"> Class names (S,S) Class indications (S,S) Class complications (S,S) Class side effects (S,S) Polypharmacy (S,S) 	<p>Specific medication classes and examples to be determined locally</p> <ul style="list-style-type: none"> Class names (F,S) Class indications (F,S) Class complications (F,S) Class side effects (F,S) Polypharmacy (F,S)

No More...



Pediatric and Geriatric Content Competencies

- *“EMS education should include knowledge from the cradle to the grave. Pediatric and geriatric topics should no longer be minimized, in comparison to “adult” topics, or relegated to an isolated component of an EMS course, which can create a perception that the content is somehow less important.” (p.26)*
- Individual sections for pediatrics and geriatrics have been removed, with education content addressing these special populations now incorporated throughout the education standards.
- Concepts related to geriatric and pediatric patients deserve equitable attention and should be **taught repeatedly** throughout every section of a course resulting in an earlier assimilation of the content.
- Includes family centered topics.

Pediatrics and Geriatrics (p.51)

	EMR	EMT	AEMT	Paramedic	
Neonatal Care	<ul style="list-style-type: none"> Newborn stabilization (S,S) Neonatal resuscitation (S,S) 	<ul style="list-style-type: none"> Newborn stabilization (F,F) Neonatal resuscitation (F,F) 	<ul style="list-style-type: none"> Newborn stabilization (F,F) Neonatal resuscitation (F,F) 	<ul style="list-style-type: none"> Newborn stabilization (C,C) Neonatal resuscitation (C,C) Anatomy and physiology of neonatal circulation (C,C) 	
Pediatrics	The Education Standards now integrate assessment, diagnostic, treatment and disposition modifications for pediatric-specific diseases and emergencies into each section of the document.				
Geriatrics	The Education Standards now integrate assessment, diagnostic, treatment and disposition modifications for geriatric-specific diseases and emergencies into each section of the document.				
Special Patient Populations	Patients with Special Challenges	<ul style="list-style-type: none"> Recognizing and reporting abuse and neglect (S,S) 	<ul style="list-style-type: none"> Recognizing and reporting abuse and neglect (S,S) Abuse/Intimate partner violence (S,S) Neglect (S,S) Child/dependent adult maltreatment (S,S) Homelessness (S,S) Poverty (S,S) Bariatrics (S,S) Technology dependent (locally determined) (S,S) Hospice/ terminally ill (S,S) Tracheostomy care/dysfunction (S,S) 	<ul style="list-style-type: none"> Recognizing and reporting abuse and neglect (S,S) Abuse/Intimate partner violence (F,F) Neglect (F,F) Child/dependent adult maltreatment (F,F) Homelessness (F,F) Poverty (F,F) Bariatrics (F,F) Technology dependent (locally determined) (F,F) Hospice/ terminally ill (F,F) Tracheostomy care/dysfunction (F,F) 	<ul style="list-style-type: none"> Recognizing and reporting abuse and neglect (S,S) Abuse/Intimate partner violence (C,C) Neglect (C,C) Child/dependent adult maltreatment (C,C) Homelessness (F,F) Poverty (C,C) Bariatrics (C,C) Technology dependent (vagal nerve stimulators, CSF diversion devices or shunts, VAD, pacemakers, gastric tubes and others to be locally determined) (C,C) Hospice/ terminally ill (C,C) Tracheostomy care/dysfunction (C,C) Homecare (F,F) Sensory deficit/loss (F,F) Developmental disability (F,F) Autism Spectrum Disorder (F,F) Orthotics/prosthetics (S,S)
		<ul style="list-style-type: none"> Sensory deficit/loss (F,F) Developmental disability (F,F) Autism Spectrum Disorder (F,F) Orthotics/prosthetics (S,S) 	<ul style="list-style-type: none"> Sensory deficit/loss (F,F) Developmental disability (F,F) Autism Spectrum Disorder (F,F) Orthotics/prosthetics (S,S) 	<ul style="list-style-type: none"> Sensory deficit/loss (F,F) Developmental disability (F,F) Autism Spectrum Disorder (F,F) Orthotics/prosthetics (S,S) 	<ul style="list-style-type: none"> Sensory deficit/loss (F,F) Developmental disability (F,F) Autism Spectrum Disorder (F,F) Orthotics/prosthetics (S,S)

The Education Standards not integrate assessment, diagnostic, treatment and deposition modifications for pediatric/geriatric specific diseases into each section of the document.

	EMR	EMT	AEMT	Paramedic
Neonatal	• Newborn stabilization (S,S)	• Newborn stabilization (F,F)	• Newborn stabilization (F,F) Neonatal resuscitation (F,F)	• Newborn stabilization (C,C) • Neonatal resuscitation (C,C) • Anatomy and physiology of neonatal circulation (C,C)
Abuse and Neglect, especially child and intimate partner violence				
Geriatrics	The Education Standards now integrate assessment, diagnostic, treatment and disposition modifications for geriatric-specific diseases and emergencies into each section of the document			
Expanded populations to include HOSPICE, Homelessness, and Technology Dependent Patients (VNS, VADs, Shunts, etc)				
Child/dependent adult maltreatment (S,S)			Recognizing and reporting abuse and neglect (S,S) Abuse/Intimate partner violence (F,F) Neglect (F,F) Child/dependent adult maltreatment (F,F) Homelessness (F,F) Poverty (F,F) Bariatrics (F,F) Technology dependent (locally determined) (F,F)	• Recognizing and reporting abuse and neglect (S,S) • Abuse/Intimate partner violence (C,C) • Neglect (C,C) • Child/dependent adult maltreatment (C,C) • Homelessness (F,F) • Poverty (C,C) • Bariatrics (C,C) • Technology dependent (vagal nerve stimulators, CSF diversion devices or shunts, VAD, pacemakers, gastric tubes and others to be locally determined) (C,C)
Tracheostomy care , suctioning at all levels				
		• Hospice/ terminally ill (S,S) • Tracheostomy care/dysfunction (S,S) • Homecare (S,S) • Sensory deficit/loss (S,S) • Developmental disability (S,S) • Autism Spectrum Disorder (S,S) • Orthotics/prosthetics (S,S)	• Hospice/ terminally ill (F,F) • Tracheostomy care/dysfunction (F,F) • Homecare (F,F) • Sensory deficit/loss (F,F) • Developmental disability (F,F) • Autism Spectrum Disorder (F,F) • Orthotics/prosthetics (S,S)	• Hospice/ terminally ill (C,C) • Tracheostomy care/dysfunction (C,C) • Homecare (F,F) • Sensory deficit/loss (F,F) • Developmental disability (F,F) • Autism Spectrum Disorder (F,F) • Orthotics/prosthetics (S,S)

Clinical Behavior/Judgment

	EMR	EMT	AEMT	Paramedic
Assessment	<ul style="list-style-type: none"> Perform a simple assessment to identify life threats, identify injuries requiring spinal motion restriction and conditions requiring treatment within the scope of practice of the EMR: 	<ul style="list-style-type: none"> Perform a basic history and physical examination to identify acute complaints and monitor changes. Formulate a field diagnosis based upon an actual and/or potential illness or injury. 	<ul style="list-style-type: none"> Perform a basic history and physical examination to identify acute complaints and monitor changes. Formulate a field diagnosis based upon an actual and/or potential illness or injury. 	<ul style="list-style-type: none"> Perform a comprehensive history and physical examination to identify factors affecting the health and health needs of a patient. Relate assessment findings to underlying pathological and physiological changes in the patient's condition. Integrate and synthesize the multiple determinants of health and clinical care. Formulate a field diagnosis based on an analysis of comprehensive assessment findings, anatomy, physiology, pathophysiology and epidemiology. Perform health screening and referrals.
Therapeutic Communication and Cultural Humility	<ul style="list-style-type: none"> Effectively communicates in a non-discriminatory manner that addresses inherent or unconscious bias, is culturally aware and sensitive, and intended to improve patient outcome. 			
Psychomotor Skills	<ul style="list-style-type: none"> Safely and effectively perform all psychomotor skills within the <i>National EMS Scope of Practice Model</i> AND state Scope of Practice at this level. 			

(EMT and above) EMS does diagnose!

(Paramedic) Health Screening and Referrals!

Field /Clinical Experience (p. 58)

- EMR: None required
- EMT: Patient Contacts
 - Field/Mobile Healthcare environment
 - Simulated experiences permissible when ambulance experiences are not available.
 - MD and program director oversight.
- AEMT:
 - Team Leadership required.
- Paramedic
 - CoAEMSP standards



Programs

- Sponsoring organizations shall be one of the following:
 - Accredited educational institution
 - Public safety organization
 - Accredited hospital, clinic or medical center, or
 - Other ***state approved*** institution or organization



Pitfalls and Errors



Sequencing

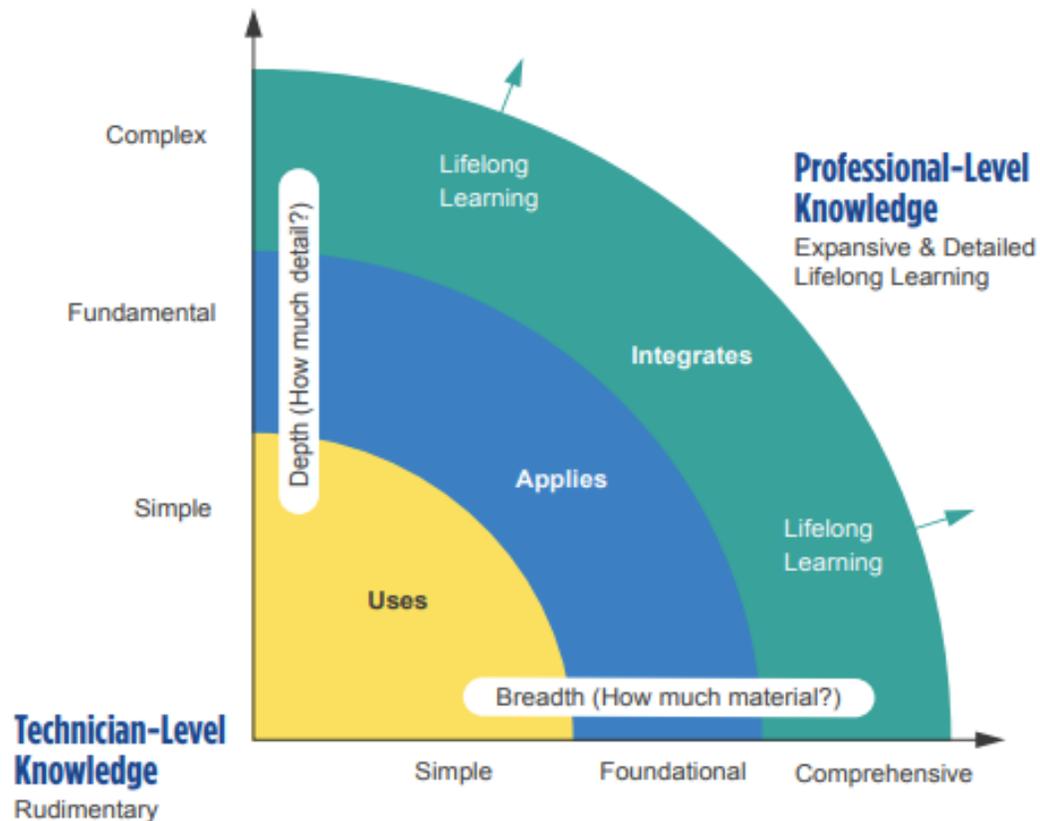
- The order of the Educational Standards should not dictate the order of instruction. “Curricular flow should be determined by the education program director with input from faculty, medical direction and advisory committees.”

COPY/PASTE



COPY/PASTE EVERYWHERE

Entry Level Competency is not “ready to practice”



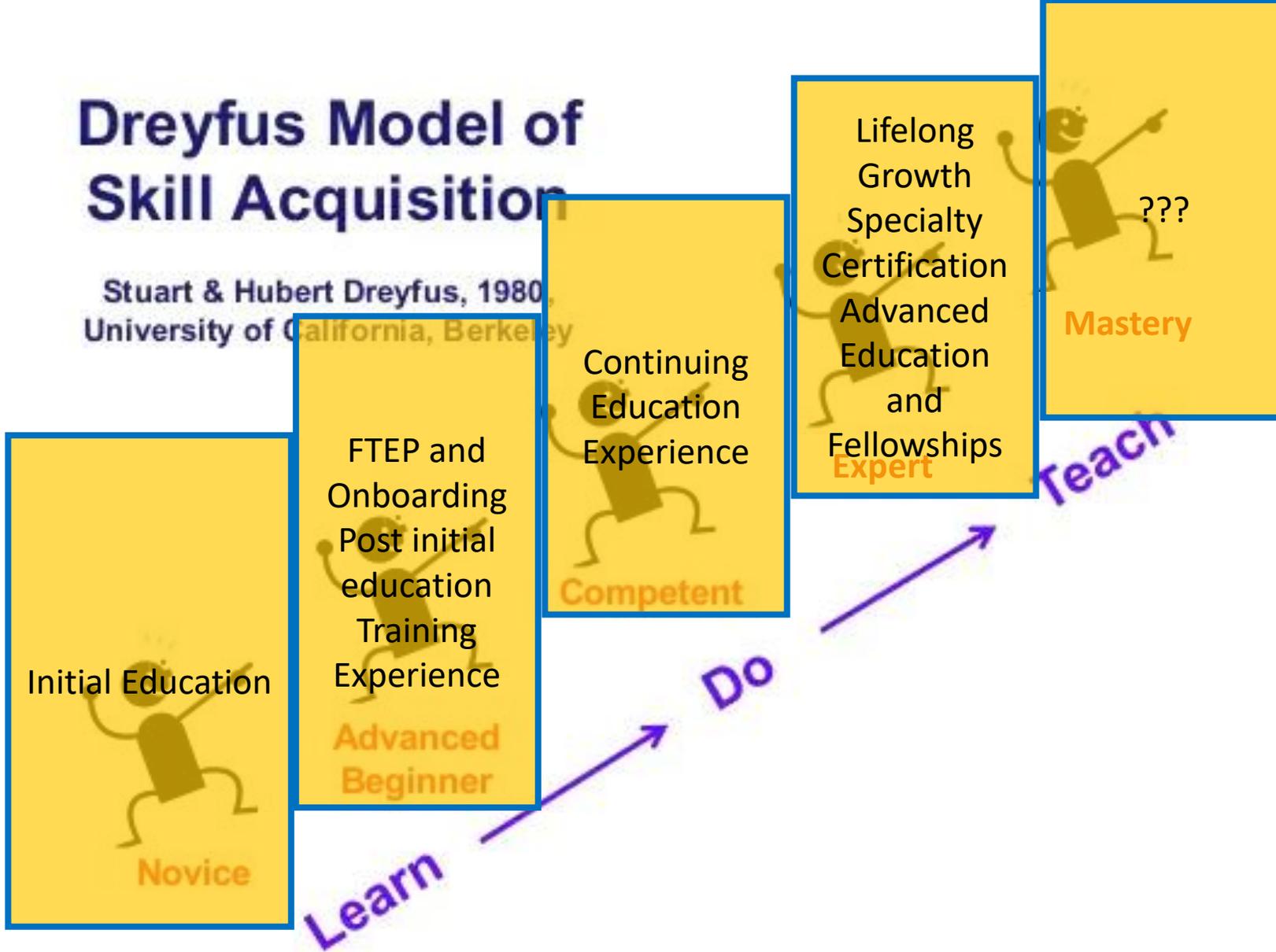
- What's Beyond?
- Professional Level of:
 - *Competency*
 - Expertise
 - Mastery
- “Lifelong Learning”
 - Experience
 - Structured ongoing education
 - Professional development and professional growth
 - And much more...



Graduation from an Educational Program and “Entry Level Competency” is not “Ready to Practice”

Dreyfus Model of Skill Acquisition

Stuart & Hubert Dreyfus, 1980
University of California, Berkeley



Adherence to strict rules;
low degrees of confidence;
high degrees of concentration



Knows when to break "the rules";
high degrees of confidence;
operates on "auto pilot"

Questions

- Steve Cole

- rcole@adacounty.id.gov



Resources

- www.ems.gov
- [https://www.ems.gov/pdf/EMS Education Standards 2021 v22.pdf](https://www.ems.gov/pdf/EMS_Education_Standards_2021_v22.pdf)
- [https://www.ems.gov/pdf/National EMS Scope of Practice Model 2019.pdf](https://www.ems.gov/pdf/National_EMS_Scope_of_Practice_Model_2019.pdf)