The Regulatory Profession: Opportunity Amid Complexity

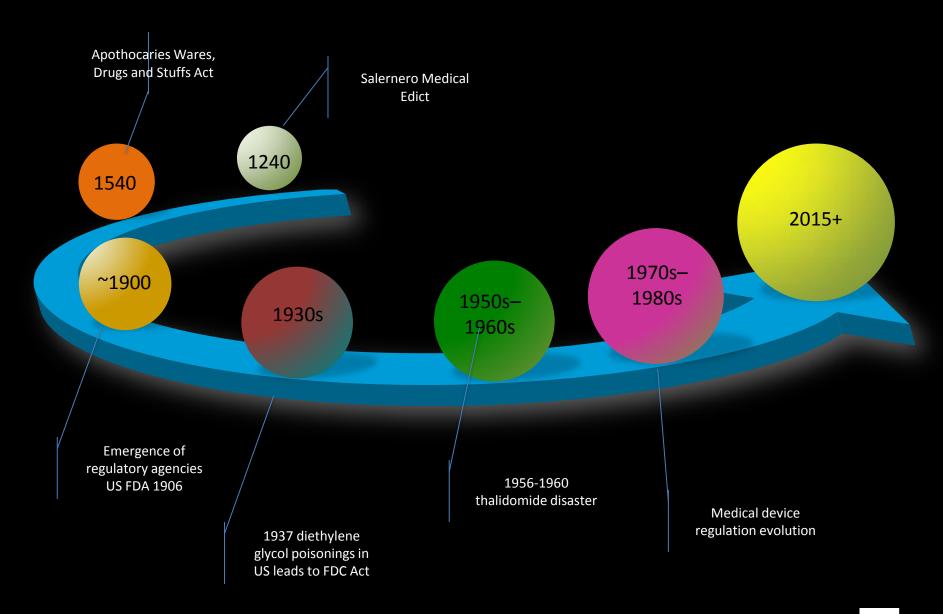
Sherry Keramidas, PhD, FASAE, CAE
Executive Director
Regulatory Affairs Professionals Society



The medical products sector is a critical economic driver and social/political factor



Regulation of medical products is a key part of public health





Regulatory Profession(al)



The need for a competent regulatory professional workforce, from entry level to executive level, is seen among regulators and industry around the world.



- Scope of practice based on a body of knowledge
- Defined competencies, knowledge and skills
- Professional qualification(s)
- Professional ethics



REGULATORY PROFESSIONAL PROFILES

6

14

42%

15%

48%

SPECIALIST VP **DIRECTOR MANAGER** Years Regulatory 19 14 Experience **Years Total** 28 23 17 Experience Master's 38% 41% 42% 31% **Doctorate** 25% 18% **RAC** 54% 55% 48%



Life Sciences 50%



Sciences 7%



Clinical Sciences 18%



Engineering 14%



Business 14%



Regulatory Affairs 13%



Regulatory Social Science 4%



Technical Sciences 4%

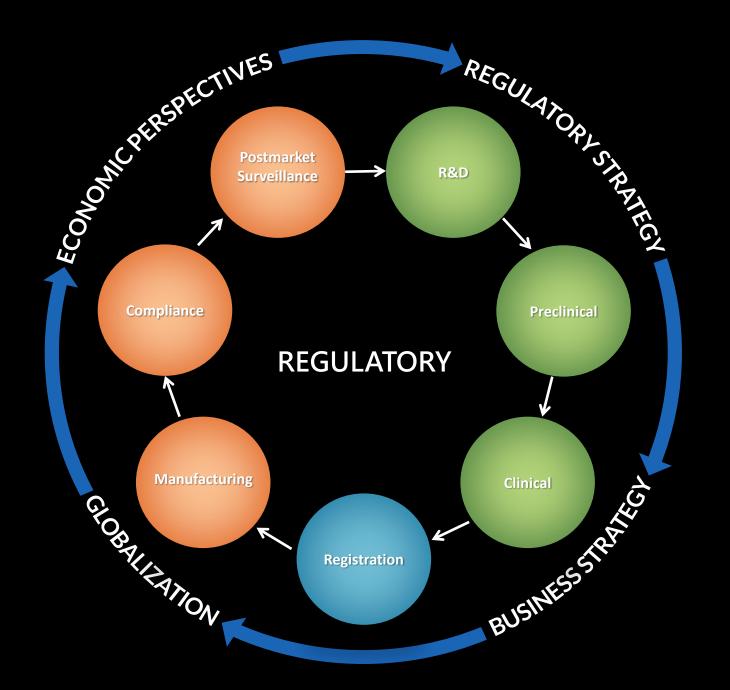


Public Health 3%



Law 3%

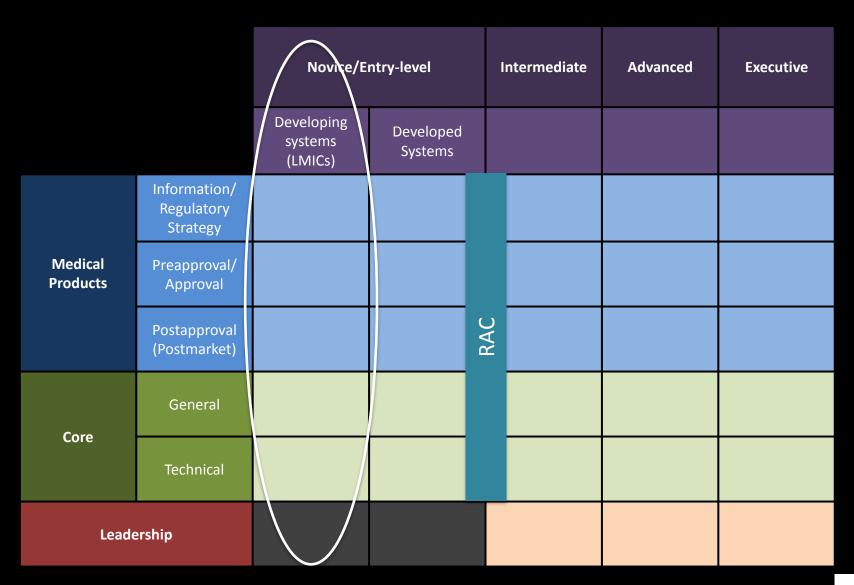




SCOPE OF PRACTICE

DIRECTOR SPECIALIST VP **MANAGER** 33% 25% 18% 12% **Business** Regulatory Strategy & 21% 18% 14% 15% Intelligence Preapproval 27% 29% 33% 42% 23% Postapproval 23% 27% 30%

Global Regulatory Professional Competency Framework



Novice/Entry-level

Developing systems (LMICs)

Medical Products	Information/ Regulatory Strategy	-Describe regional and international regulatory standards and practices applicable to medical productsApply regulatory requirements, pathways and approaches used locally that pertain to the areas for which they are responsible.
	Preapproval/ Approval	-Apply national and international standards and requirements for product development and clinical trialsAssess the need for potential risk management measures to assure an acceptable risk benefit profile throughout the product lifecycle.
	Postapproval (Postmarket)	-Assess the potential impact of post-approval changes to the quality, safety and/or efficacy of a product.
	General	-Describe the agency regulatory role and authority, including statutes, regulations, and guidelinesExplain threats and risks to the supply chain as a result of globalization (international trade).
Core	Technical	-Describe the relationship between regulations, inspections, compliance and public healthRecognize the role of international standards and standard setting organizations with regard to regulations, inspections, compliance and public health.

		Novice/E										
		Developing systems (LMICs)	Developed Systems									
	Information/ Regulatory Strategy											
Medical Products	Preapproval/ Approval											
	Postapproval (Postmarket)											
Coro	General											
Core	Technical											

Compliance, Surveillance & Enforcement										Information Management				Professi													
Adulteration	Authenticity	Complaints	Customs	Inspection & Enforcement	Sampling	Supply Chain Management	Surveillance	Third Party Audits	Traceability Systems	Trade Import / Export	Transportation	Man	Documentation	Literature Review	Record Keeping	Accountability	Communication Skills	Computer Skills	Confidentiality	Critical Thinking	Ethics and Conduct	Media Relations	Negotiation Skills	Personal Safety	Professionalism	Stakeholder Interaction	Teamwork
Public Health Principles Regu					Regulatory Framework / Organizational Awareness								Science														
Environmental Health	Epidemiology	Nutrition	Personal Hygiene (GMPs)	Water and Sanitation	Zoonosis	Global Integration	Intellectual Property	International Relations/cooperation	Jurisdiction	Laws and Regulations	Policies	Principles of Quality Management Systems	Regulatory Transparency - Openess	Roles and Responsibilities	Rulemaking Process	Biology	Biostatistics	Chemistry	Ecotoxicology	Microbiology	Toxicity Testing	Toxicology					
Regulatory Framework Product Development							Application Review Product Registration																				
Animal Welfare	International Standards Development Organizations		Product Classification	Product Life Cycle	Regulatory Impact Assessment		Schedule or Controlled Substances		Clinical Trial Design	Naming Conventions	Shelf Life Studies	ructures	Good Review Practices	Product Dating / Expiration	Product License and Registration	Shelf Life Studies	Clinical Trial Oversight	Facility Design	Good Practices (GXP)	Human Subject Protection	Marketing and Promotion	Product Dating / Expiration	Quality and Safety Monitoring				

Writing Skills

Individual & workforce assessment tools

Alignment with regulatory system assessment & planning tools

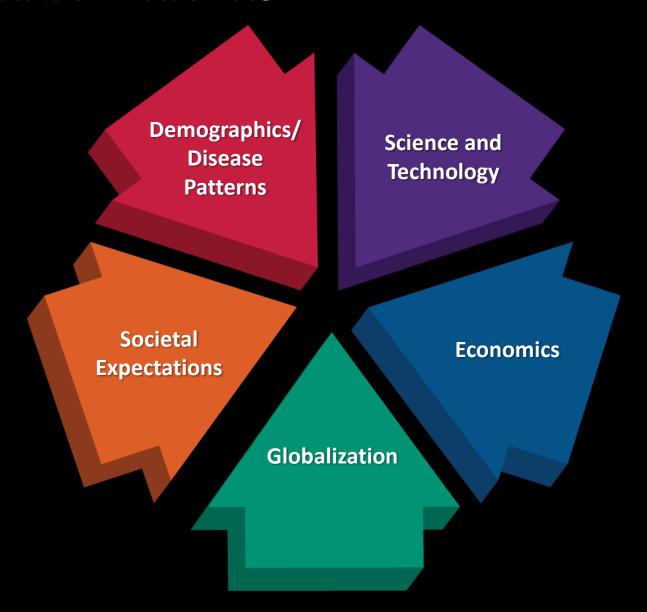
Training planning tools

Course review tools

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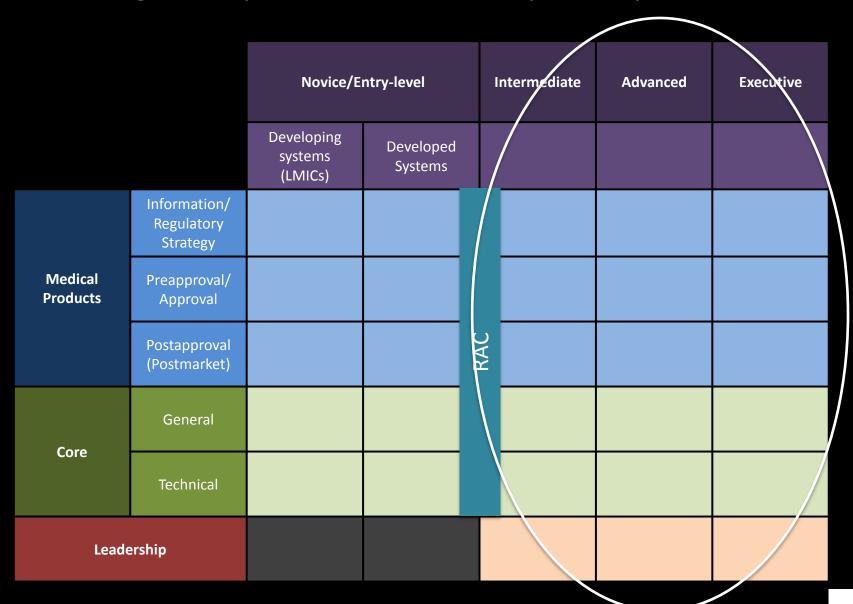


EXTERNAL DRIVERS





Global Regulatory Professional Competency Framework



REGULATORY CHALLENGES & OPPORTUNITIES





Thank you

