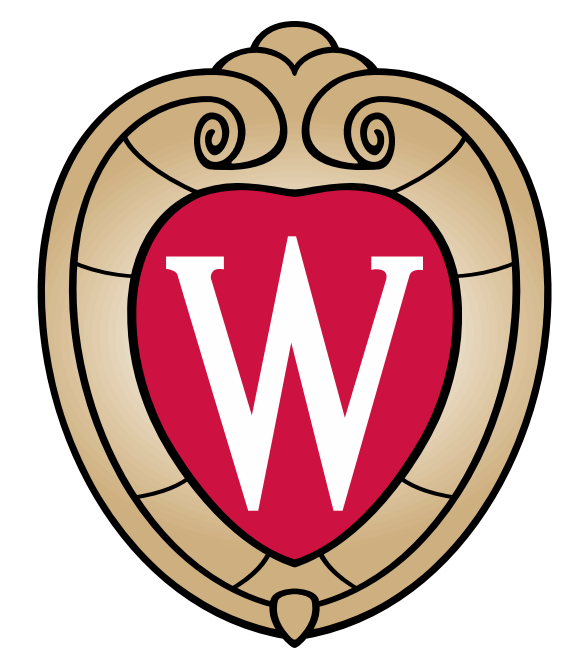


One Step ForWard and NO Steps Back! NBME Subject Exam Scores and Transition to an Integrated Clinical Curriculum



University of Wisconsin School of Medicine and Public Health

Laura Zakowski MD, Kirstin Nackers MD, Raquel Tatar PhD MA MSPH,
Eileen Cowan MD, Katharina Stewart MD, Sarah Ahrens MD, Laura Jacques MD, David Tillman MD, Shobhina Chheda MD MPH

CONCLUSION: CURRICULAR TRANSFORMATION DOES NOT AFFECT NBME SUBJECT EXAM SCORES

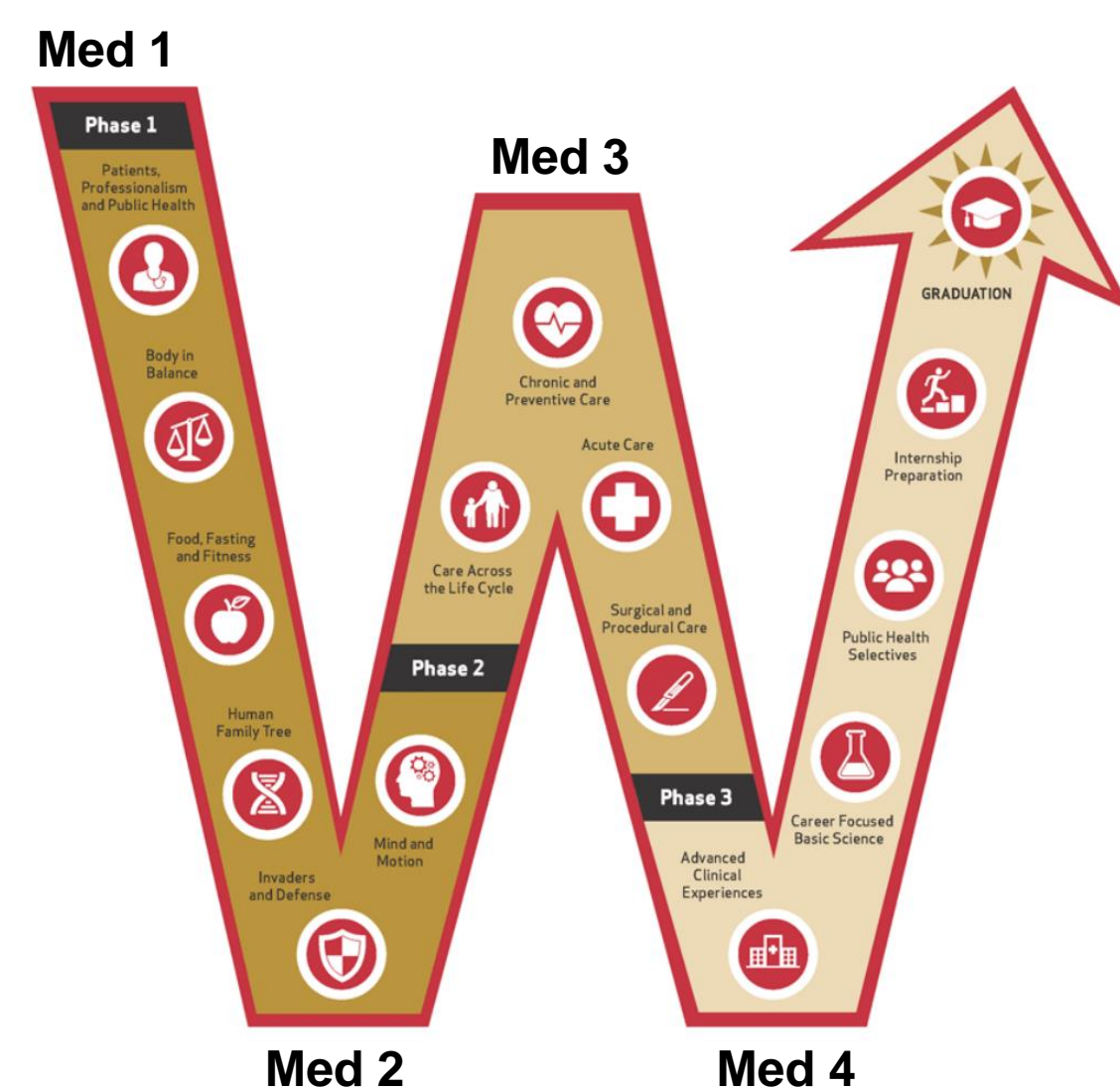
NEEDS AND OBJECTIVES

Recent AAMC data shows that two-thirds of medical schools are currently undergoing or planning curriculum changes (AAMC, 2018). During periods of curricular change, it is important to track assessment outcomes to determine any possible negative impacts during the transition process.

We used NBME subject exam scores and pass rates to study how moving from a traditional curriculum to integrated basic science and clinical blocks affected student acquisition of knowledge.

SETTING AND PARTICIPANTS

Structure of new ForWard Curriculum



Clinical experiences: Previous & New

Previous curriculum			New ForWard curriculum		
Clerkship	Duration (weeks)	Timing	Block	Duration (weeks)	Timing
Internal Medicine	8	M3	Acute Care	12	Phase 2
Neuroscience	4	M3 or M4	Chronic and Preventive Care	12	Phase 2
Psychiatry	4	M3	Care Across the Life Cycle	12	Phase 2
Primary Care	8	M3	Surgical and Procedural Care	12	Phase 2
Obstetrics & Gynecology	6	M3			
Pediatrics	6	M3			
Surgery	8	M3			
Anesthesiology	2	M3 or M4			

Acute Care: IM, Neurology, Psychiatry, Radiology, EM

Chronic and Preventive Care: Family Medicine, GIM, Neurology, Psychiatry

Care Across the Life Cycle: Obstetrics & Gynecology, Pediatrics, Geriatrics

Surgical and Procedural Care: Surgery, Anesthesia

ANALYSIS

We compared student **demographics** using t-test.

We analyzed **NBME scores and passing rates** for the final previous curriculum cohort and the first ForWard cohort of students using ANCOVA.

DEMOGRAPHICS	Previous n=183	ForWard n=162	p-value
Age (mean (SD))	26.9 (3.2)	25.6 (2.4)	<0.001
Female (n (%))	91 (50%)	80 (49%)	0.95
Race/ethnicity			0.07
Non-Hispanic White	130 (71%)	98 (60%)	
Non-Hispanic Black	6 (3%)	17 (10%)	
Hispanic	5 (3%)	7 (4%)	
Asian	28 (15%)	23 (14%)	
Native American	3 (2%)	2 (1%)	
Other	11 (6%)	15 (9%)	
Extended	26 (14%)	5 (3%)	0.0003

RESULTS

Adjusted mean NBME scores and passing rates were no different for the previous and ForWard curriculum.

NBME subject exam scores

	Previous N=183		ForWard N=162		Difference (95% CI)
	Mean*	95% CI	Mean*	95% CI	
Ambulatory Medicine	75.8	(74.4-77.2)	75.4	(73.8-77.1)	-0.35 (-1.9-1.2)
Medicine	75.5	(73.8-77.3)	74.9	(72.7-77.0)	-0.65 (-2.6-1.3)
Neurology	77.1	(75.3-78.9)	77.7	(75.7-79.6)	0.52 (-1.31-2.36)
Obstetrics & Gynecology	79.4	(77.9-80.9)	78.7	(76.9-80.4)	-0.75 (-2.33-0.84)
Pediatrics	76.2	(74.6-77.8)	75.7	(73.9-77.6)	-0.48 (-2.17-1.21)
Psychiatry	75.9	(74.5-77.3)	75.5	(73.8-77.1)	-0.44 (-1.97-1.10)
Surgery	75.5	(74.0-77.1)	75.4	(73.7-77.1)	-0.13 (-1.67-1.40)

*Means adjusted for age, gender, extended status, and location

NBME subject exam pass rates

	Previous		ForWard		p-value*
	N	%	N	%	
Ambulatory Medicine	183	100	160	100	0.99
Medicine	177	100	156	98	0.05
Neurology	171	99	159	100	0.50
Obstetrics & Gynecology	178	99	160	99	0.99
Pediatrics	178	99	160	99	0.60
Psychiatry	182	99	160	100	0.99
Surgery	183	100	160	100	0.99

*p-value for testing difference between previous and ForWard, adjusted for age, gender, extended status, and location

DISCUSSION

Medical schools undergoing substantial curricular transformation can be reassured that integration of specialties and reduction of preclinical curricular time does not affect NBME subject exam scores.