

Educational Assessment 2015-2016

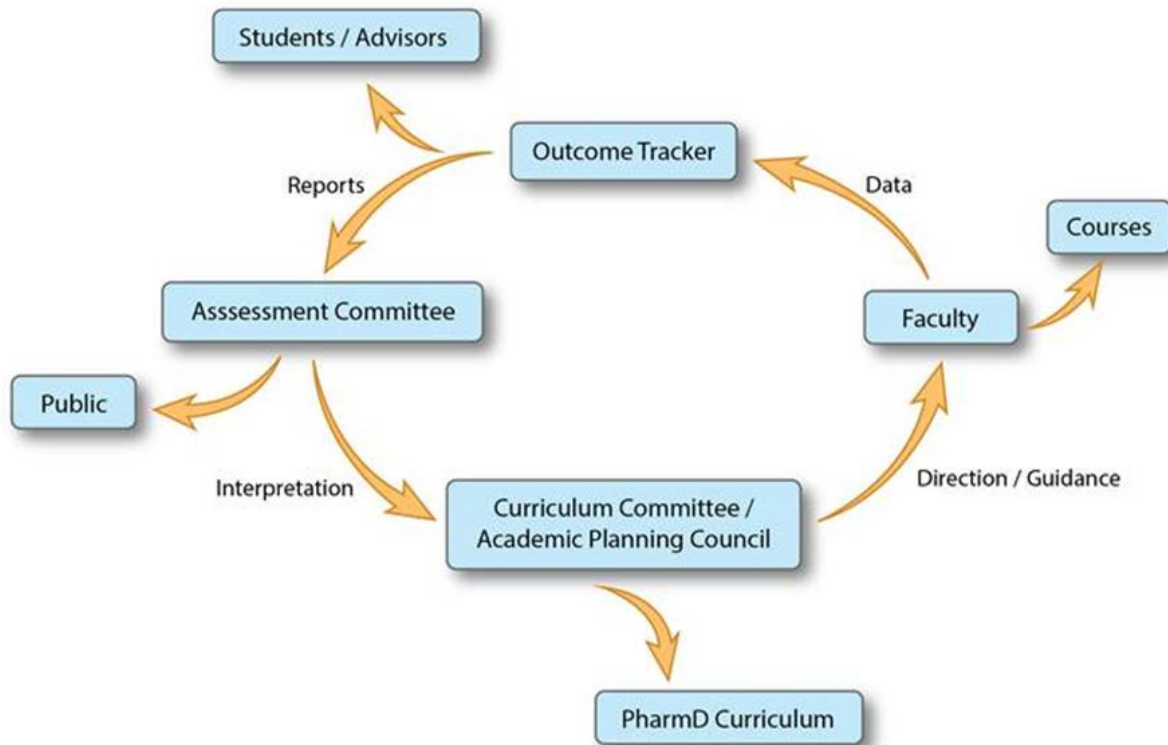
Doctor of Pharmacy Program

The Doctor of Pharmacy program has 15 Educational Outcomes that were mapped through the entire four-year required curriculum. These outcomes are assessed both directly via Outcome Tracker and indirectly via the AACP Graduating Student Survey.

Outcome Tracker

- ***Embedded assessment tool aligned with accreditation and School outcomes***
 - ACPE requires the Pharm.D. programs have a data-driven, comprehensive approach of demonstrating demonstrate students' achievement of abilities in various domains of the didactic curriculum (e.g., medicinal chemistry, ethics) before beginning their fourth year Advanced Pharmacy Practice Experiences (APPE).
 - These ACPE didactic curriculum domains were mapped to the School's Educational Outcomes. Faculty then assigned key course assessment activities (e.g., exams, projects, labs) to each of the Educational Outcomes, which appear in Outcome Tracker.
- ***Demonstrates readiness for advanced pharmacy practice experiences (APPE)***
 - Students' completion of each activity is categorized as Satisfactory or Needs Improvement.
 - In correlation analyses of two different graduating Pharm.D. classes, students with less assessment activities with Needs Improvement in their Pre-APPE coursework tended to have higher APPE grades.
 - The relationship between positive Outcome Tracker trends and APPE performance supports the validity of this direct assessment.
- ***Promotes student reflection and continuous professional development***
 - As part of their Professional Development and Engagement (PDE) activities, students review their individualized performance report of specific assessment activities.
 - Consistent with the Continuous Professional Development cycle, students reflect on this information and set goals on how to improve their academic performance.

Outcome Tracker Stakeholder Flowchart



- **Recognized by peer pharmacy programs**
 - Outcome Tracker was recognized with the 2015 Excellence in Assessment Award from the American Association of Colleges of Pharmacy (AACCP).

AACP & AFPC
Annual Meeting

July 11-15, 2015
Gaylord National Resort & Convention Center
National Harbor, Maryland



AACP Graduating Student Survey

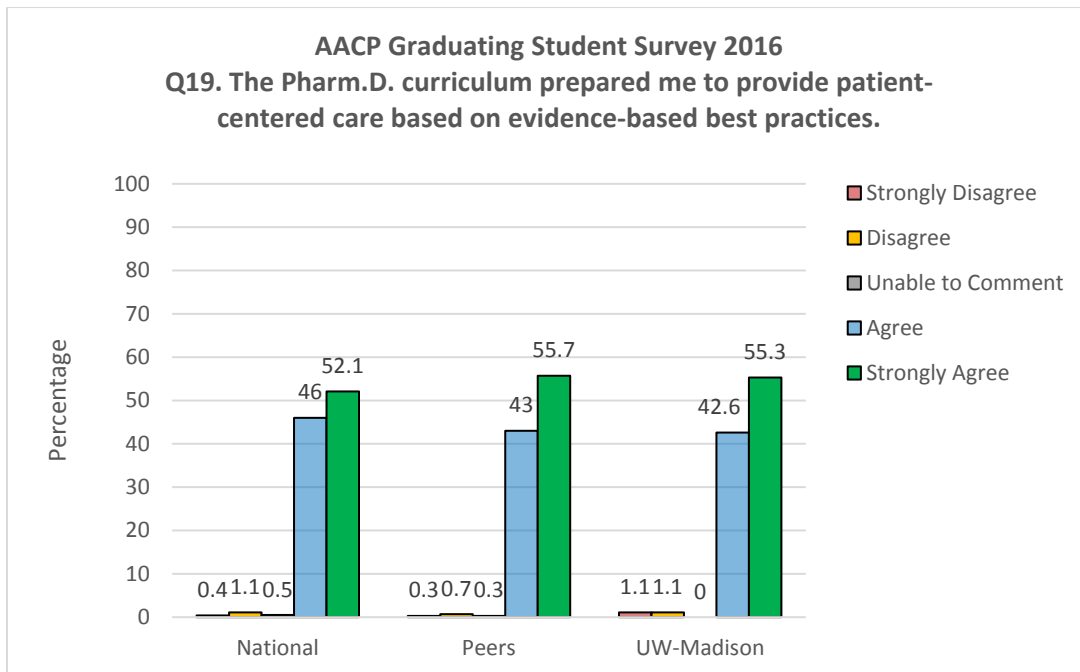
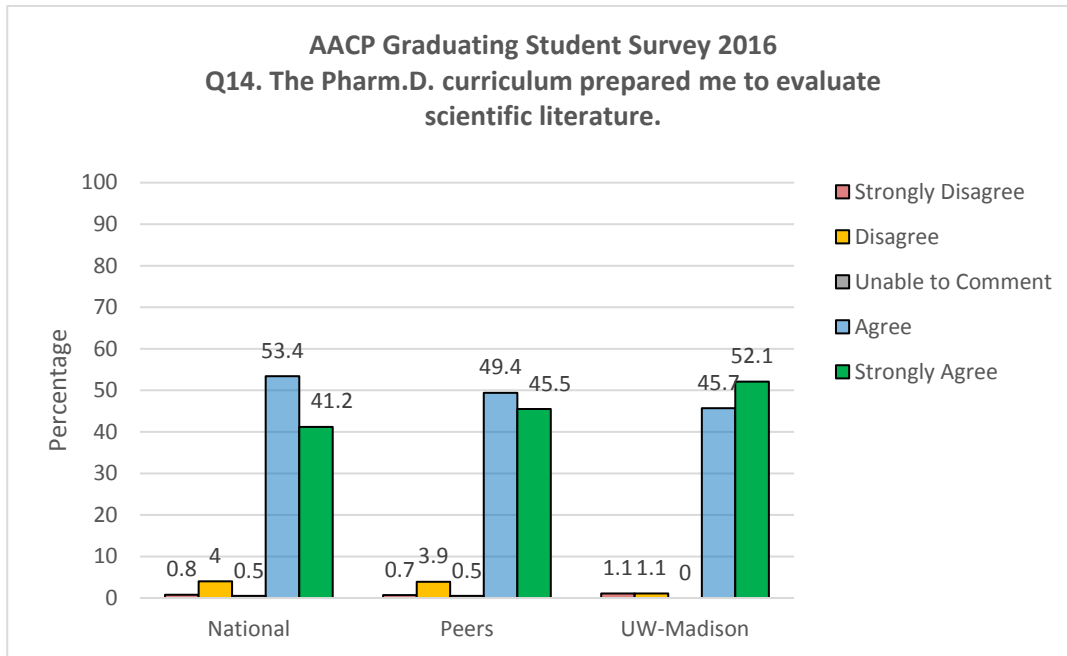
- Annual indirect measure of the School’s Educational Outcomes
- Survey questions align with national curriculum outcomes from accreditation
 - Selected survey questions are responded to on a four-point Likert scale (Strongly Agree (SA), Agree (A), Disagree (D), Strongly Disagree (SD) and Unable to Comment (UC).
- Coordinating with AACP allows peer and national comparisons
 - 2016 peer institutions: University of Illinois at Chicago, The University of Iowa, University of Maryland, University of Michigan, University of Nebraska Medical Center, The Ohio State University, Purdue University, and Rutgers, the State University of New Jersey

Class of	2011	2012	2013	2014	2015	2016
N	63	78	90	75	89	94
Response rate	47.37%	59.09%	70.90%	59.10%	67.40%	71.20%

[Pharm.D. Educational Outcomes](#) (1-Information processing and provision, 2-Drug factors, 3-Patient factors, 4-Drug kinetics, 5-Product preparation, 6-Communication, 6a-Communicate with patients and/or caregivers, 6b-Communicate with health professionals, 6c-Document therapeutic assessments and clinical interventions, 7-Teamwork, 8-Behavioral principles, 9-Management principles, 10-Practice evaluation, 11-Professional standards, 12-Health disparities, 13-Public Health, 14-Professional awareness, 15-Lifelong learning)

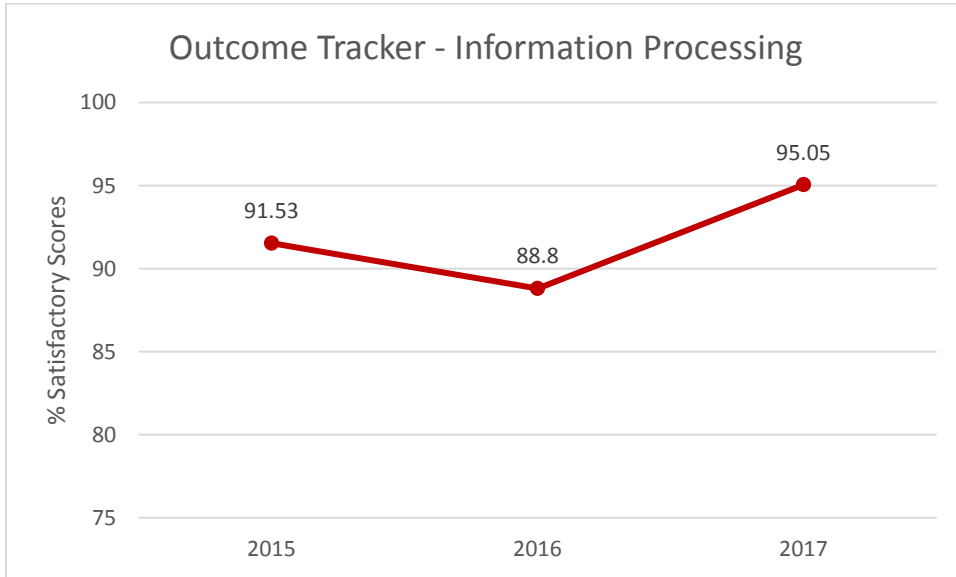
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1. Information Processing and Provision - Retrieve, analyze, and interpret the professional and lay literatures and provide drug and health information (such as evidence-based drug information) to healthcare professionals and the public.



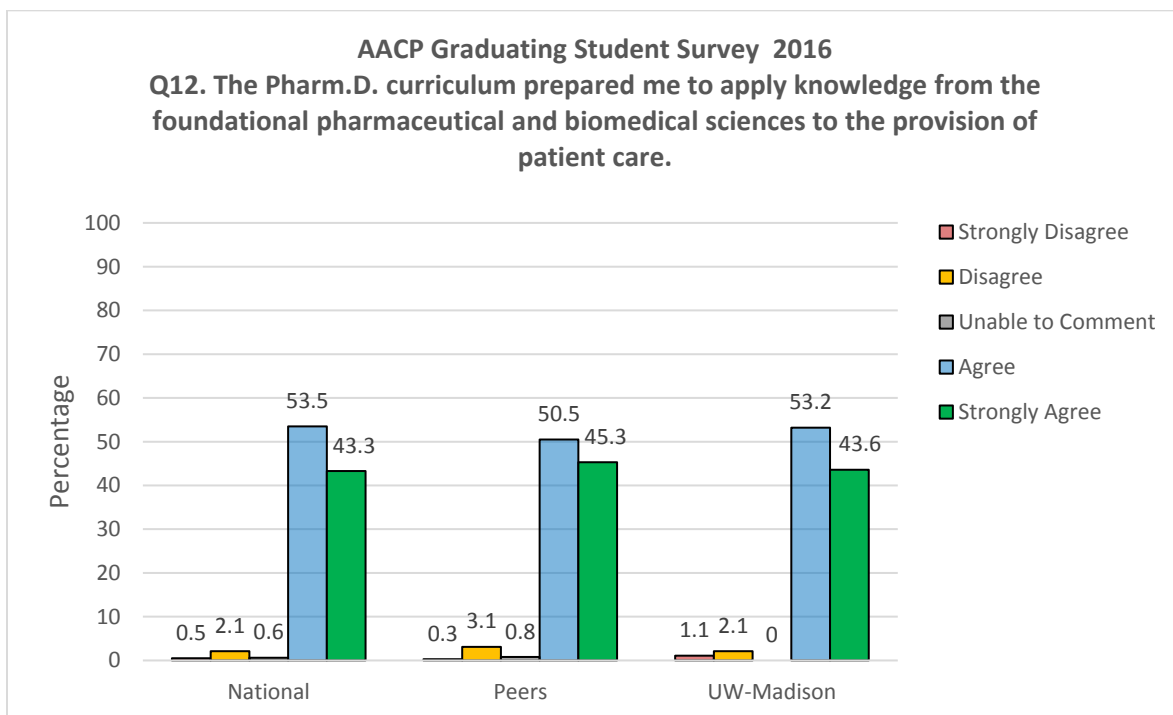
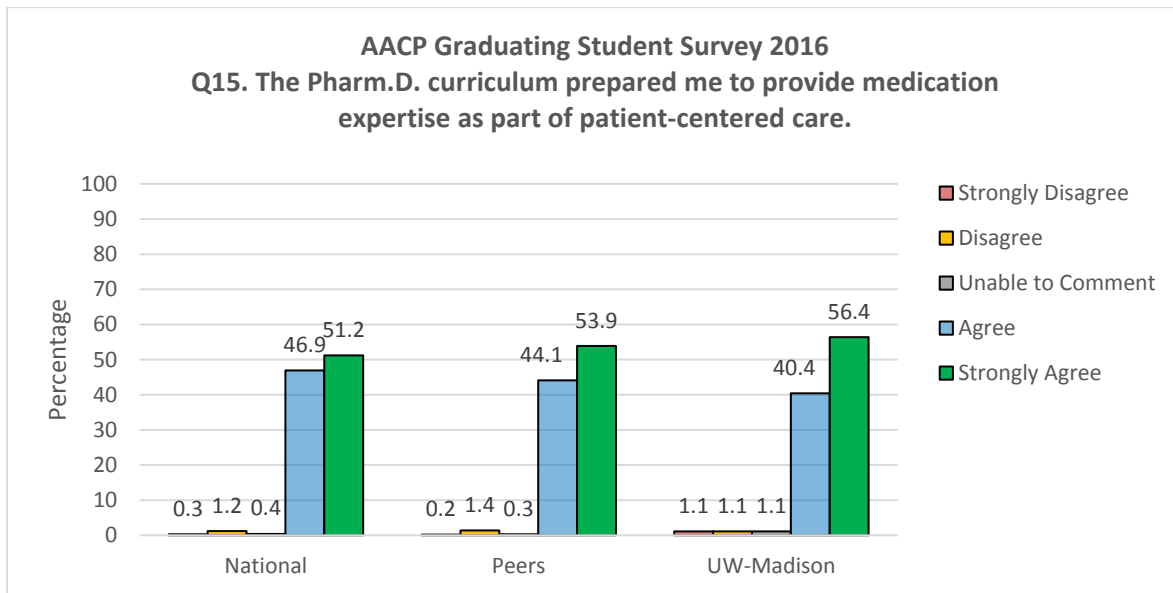


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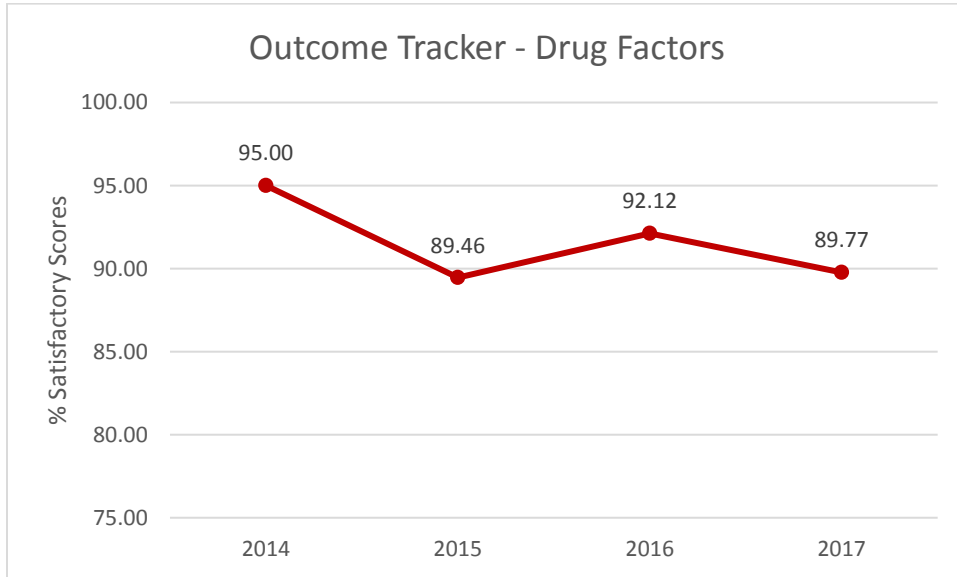
Outcome Tracker	2015	2016	2017
% Satisfactory	91.53%	88.8%	95.05%

2. Drug Factors - Apply knowledge of the physical, chemical, pharmacologic, and formulation properties of drugs and relate how these properties influence drug parameters (such as kinetics, pharmacodynamics, stability, dosage form design, and treatment-related outcomes). Differentiate among the major therapeutic drug classes based on mechanisms of action, clinical use and adverse effects, contraindications, drug interactions, dosage forms, and dosing regimens.



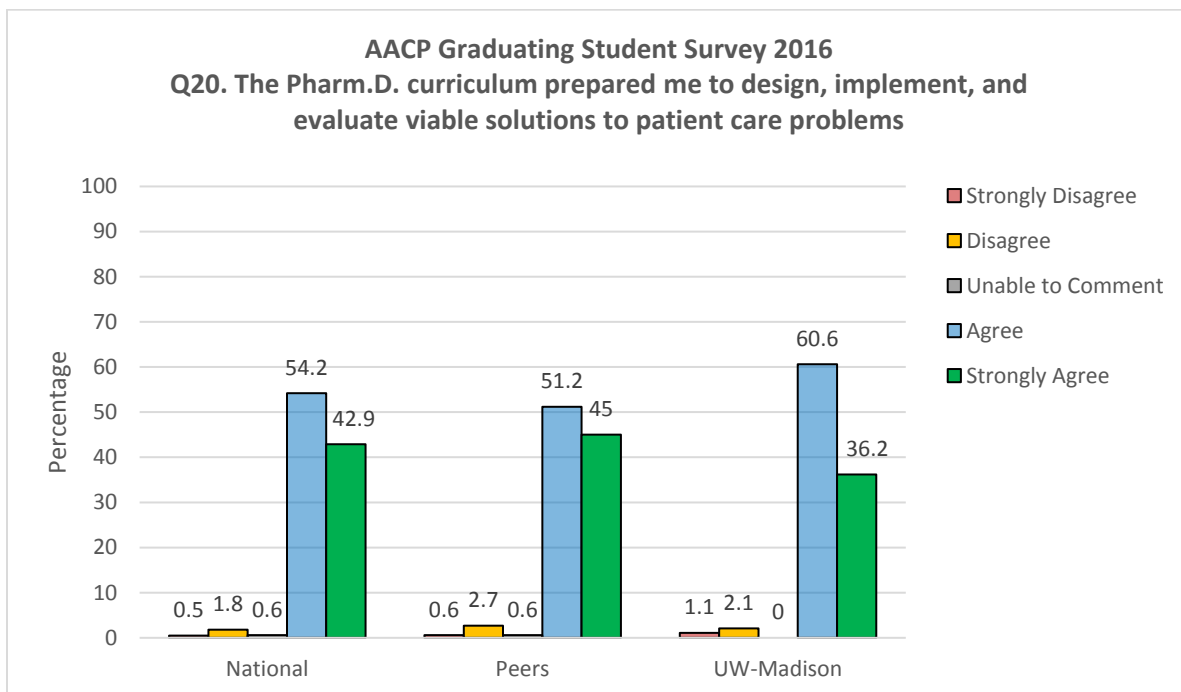
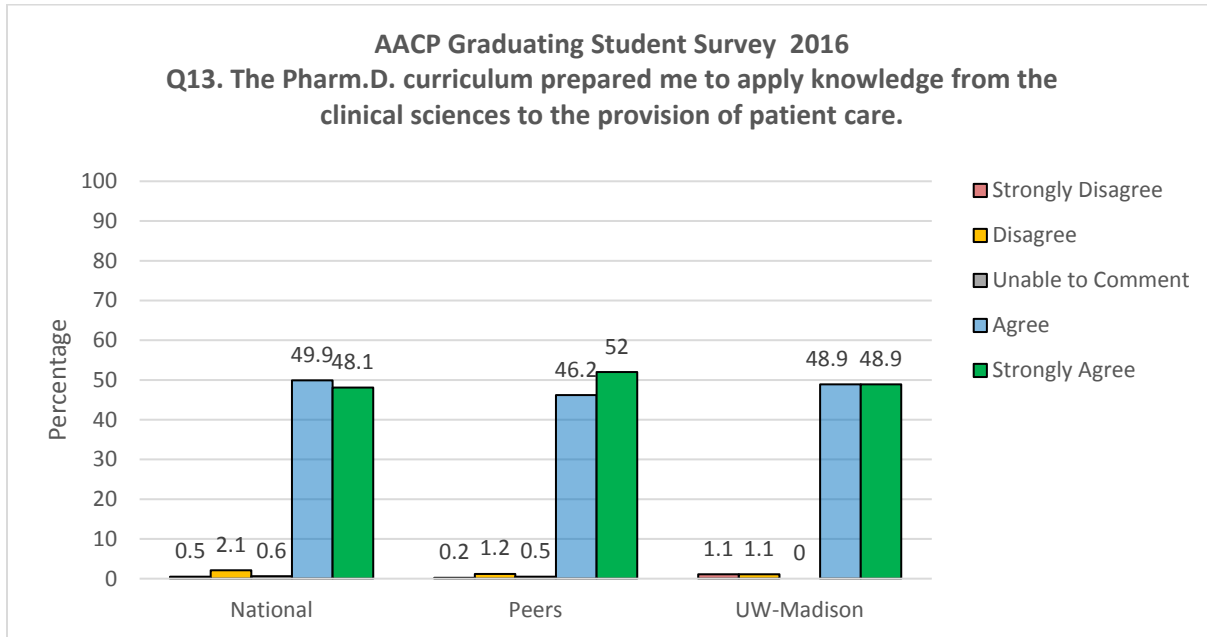


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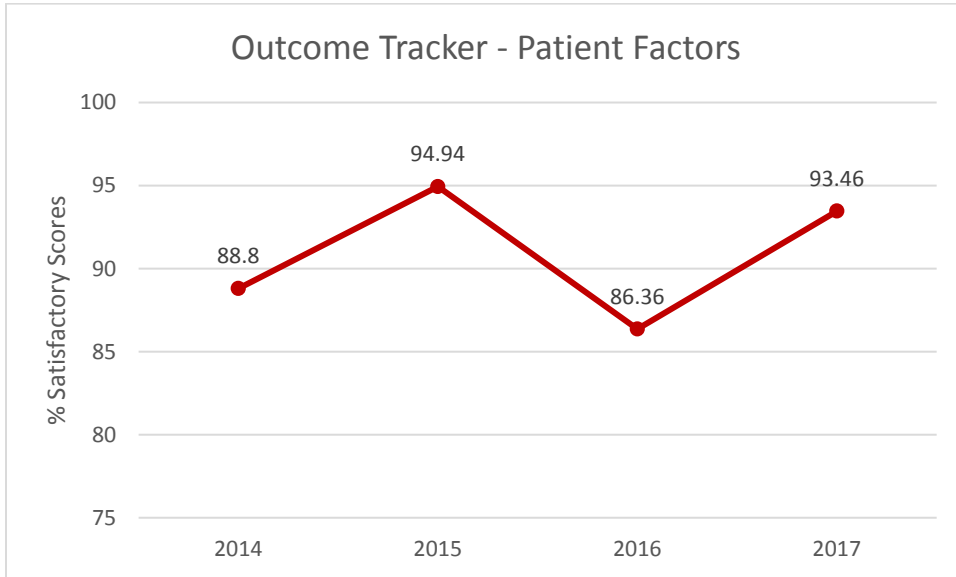
Outcome Tracker	2014	2015	2016	2017
% Satisfactory	95%	89.46%	92.12%	89.77%

3. Patient Factors - Collect, integrate and apply knowledge of a patient’s biochemistry, anatomy, physiology, genomics, culture, socio-behavioral characteristics, and pathophysiologic states to develop an individualized patient care plan using drug factors that will improve therapeutic outcomes, minimize drug reactions, reduce adverse events, and increase adherence.





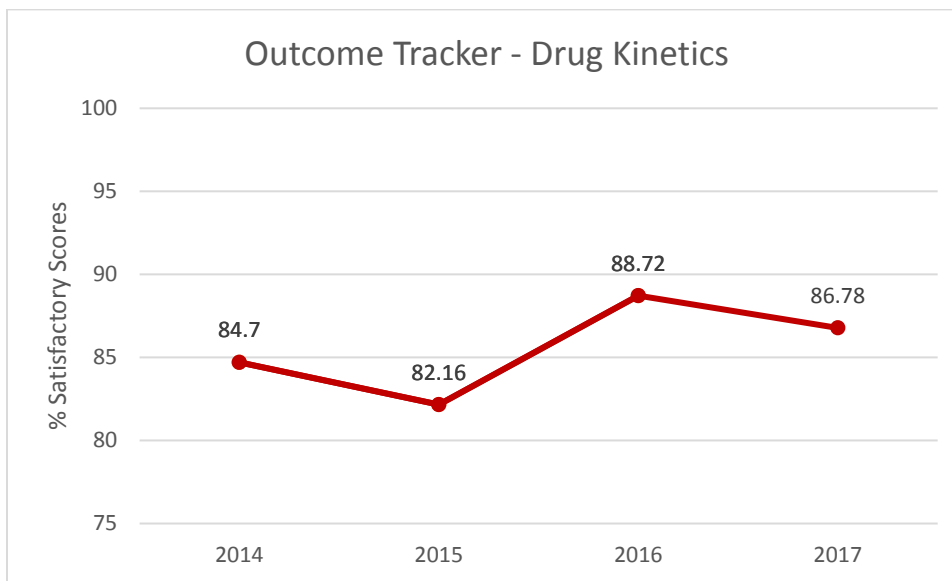
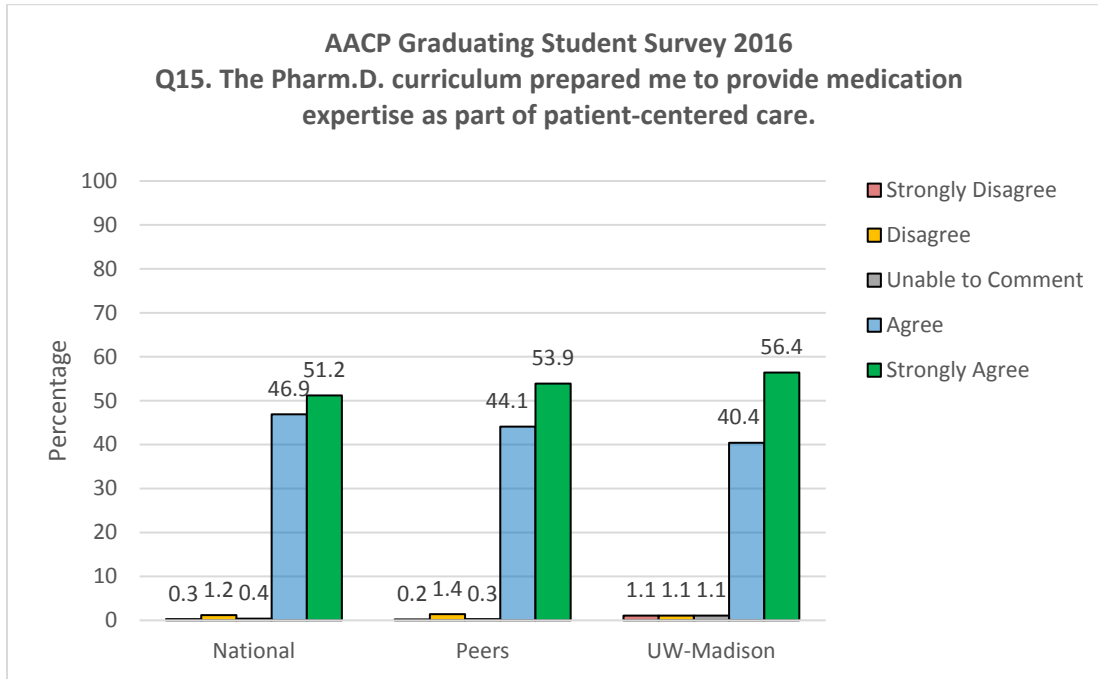
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Outcome Tracker	2014	2015	2016	2017
% Satisfactory	88.8%	94.94%	86.36%	93.46%

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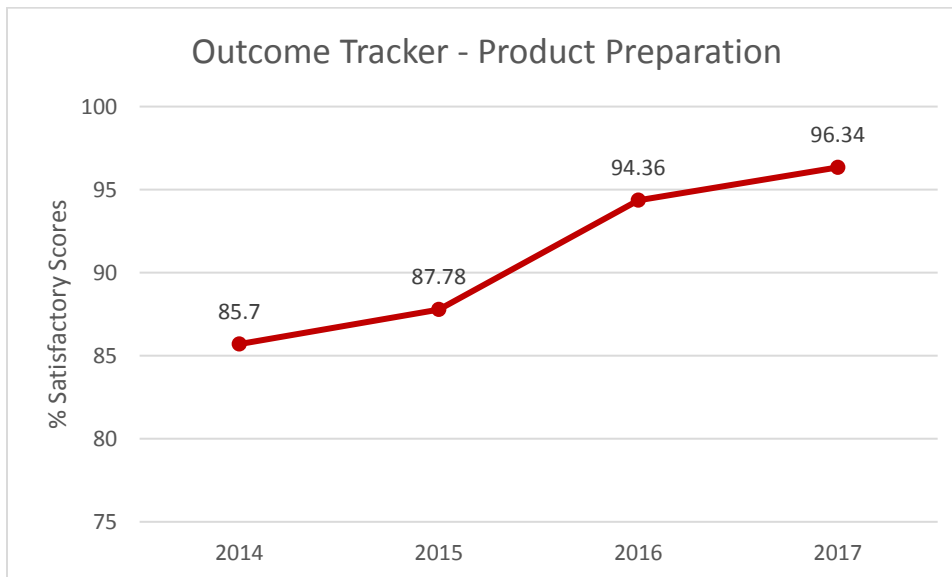
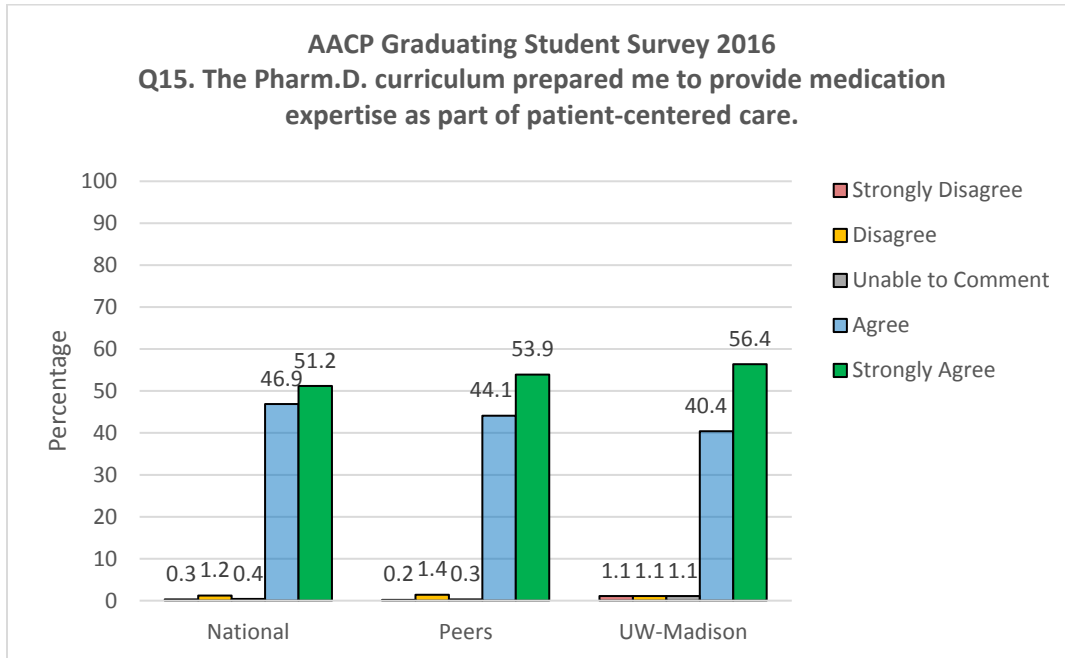
4. Drug Kinetics - Design or modify dosage regimens using patient-specific or population pharmacokinetic data, plasma concentration-time profile of drugs, and factors that alter them.



Outcome Tracker	2014	2015	2016	2017
% Satisfactory	84.7%	82.16%	88.72%	86.78%

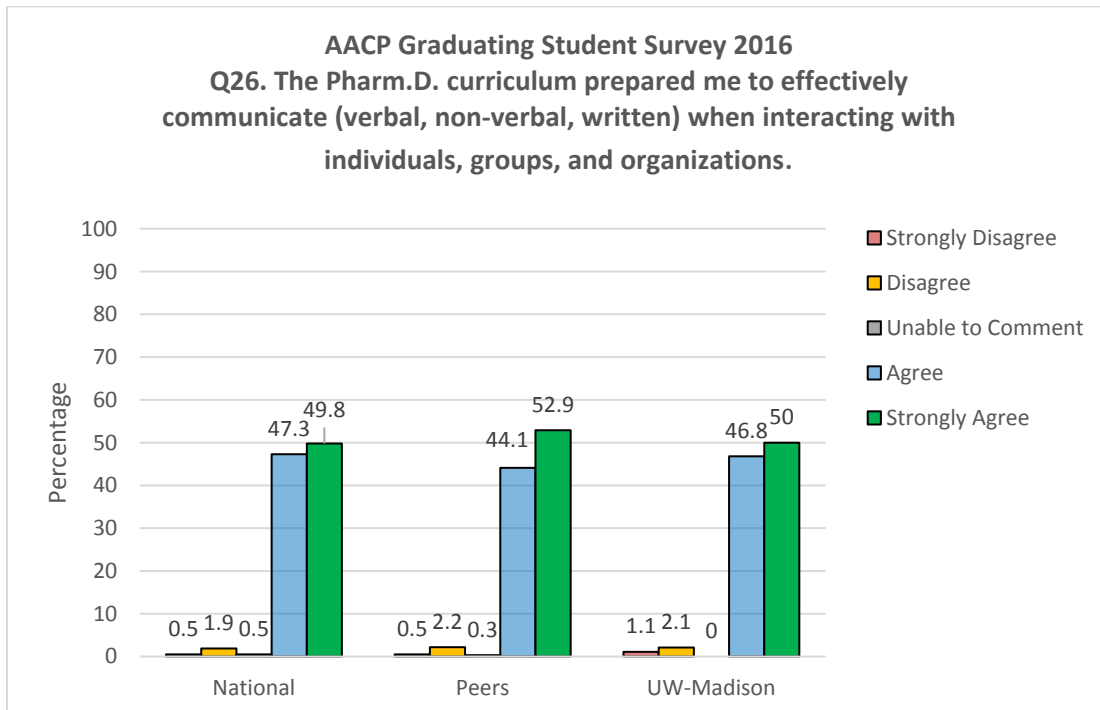
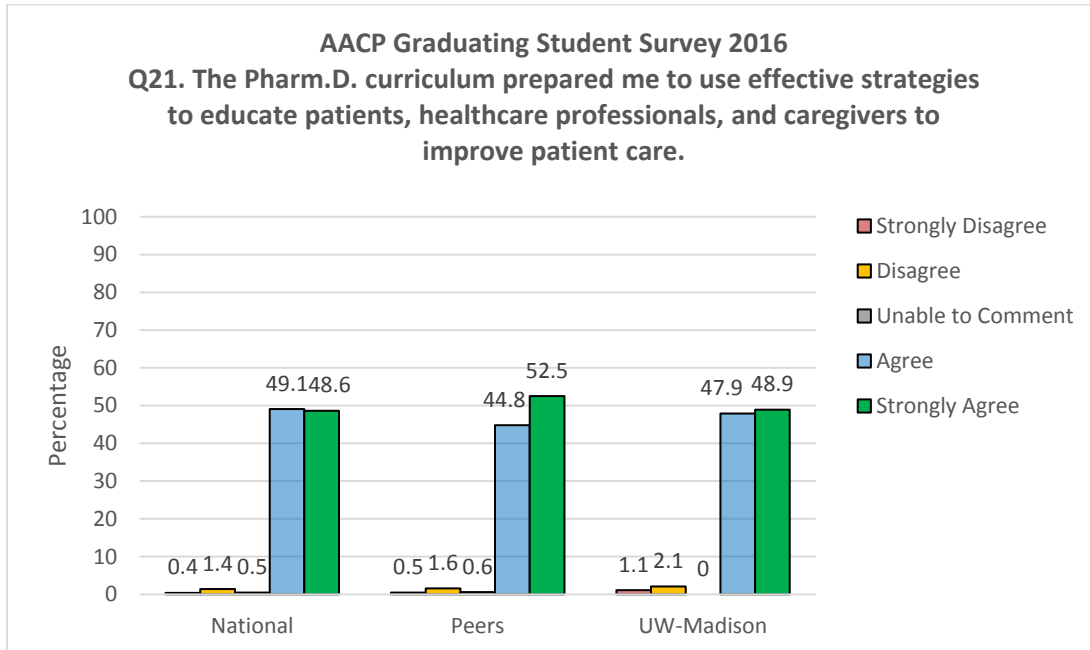
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5. Product Preparation - Compound parenteral and non-parenteral drug products using appropriate calculations, pharmaceutical components, and techniques. Demonstrate a commitment to patient safety by assuring total accuracy in calculation, preparation, labeling and dispensing of prescription and medication orders.



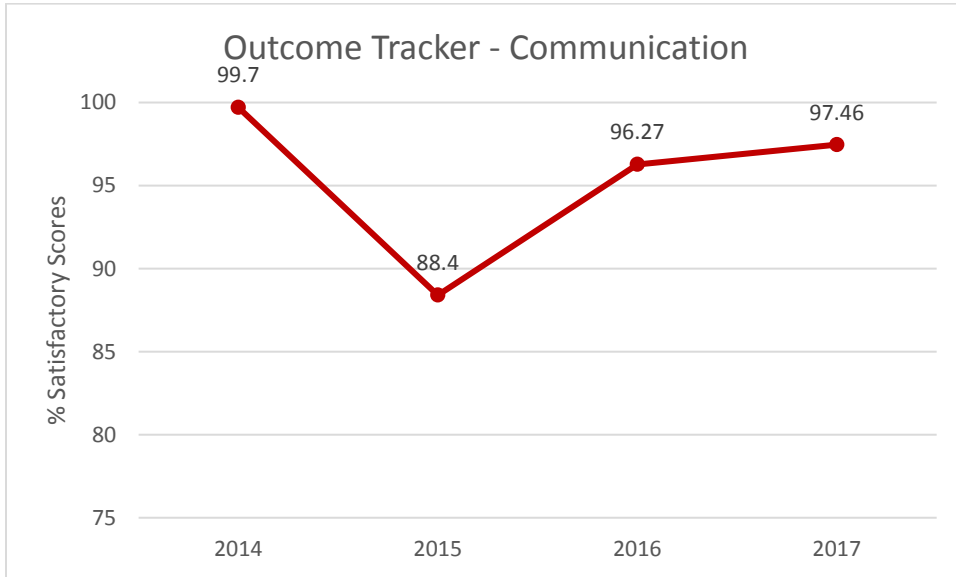
Outcome Tracker	2014	2015	2016	2017
% Satisfactory	85.7%	87.78%	94.36%	96.34%

6. Communication - Communicate effectively in oral and written forms with patients, caregivers, healthcare professionals, and others. Demonstrate empathy, listening skills, and altruism in interactions.





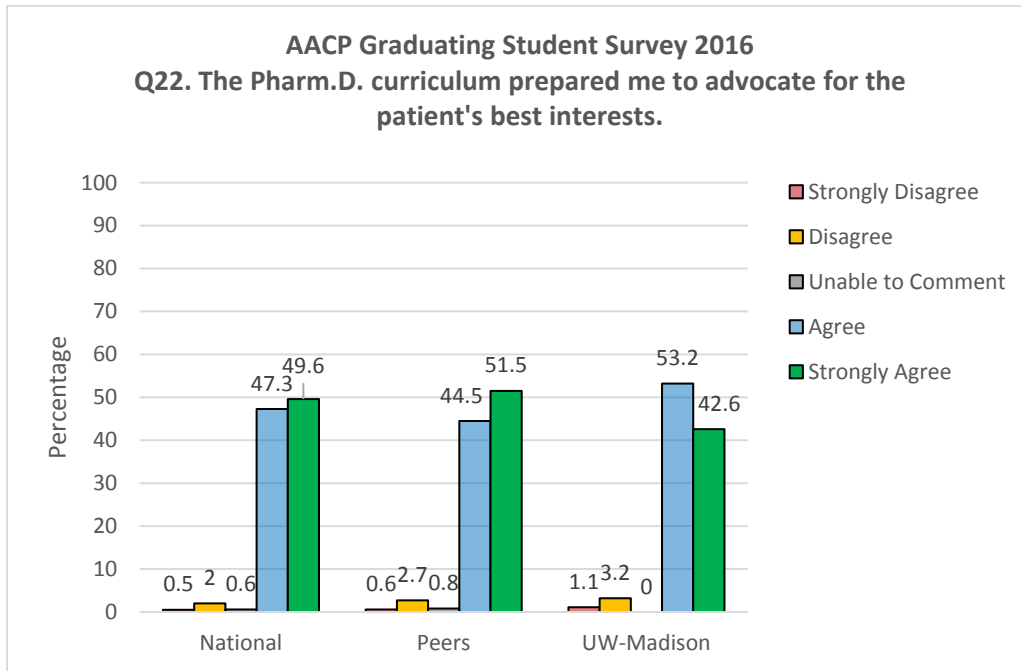
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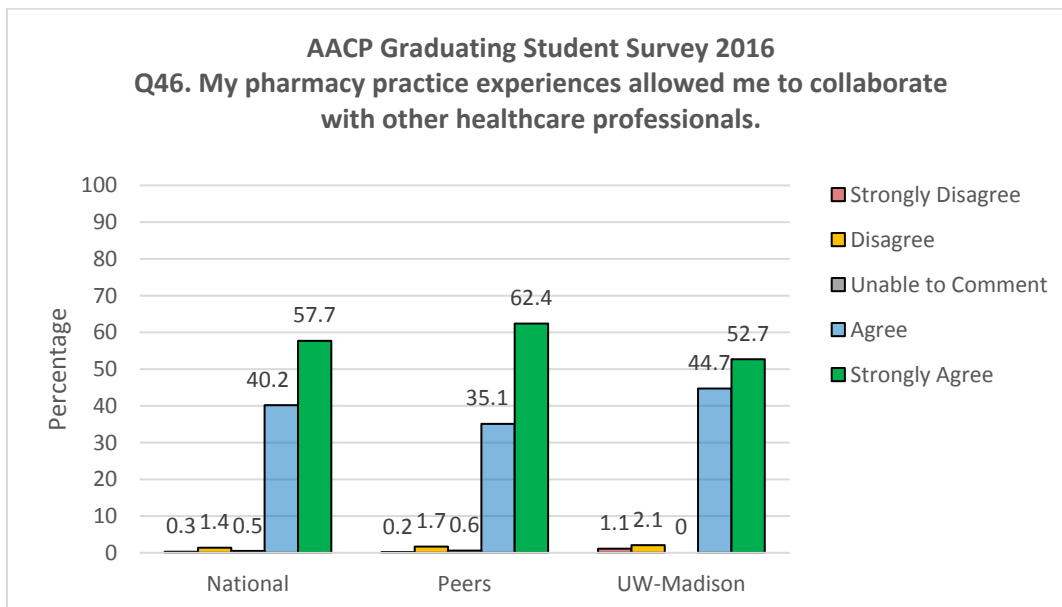
Outcome Tracker	2014	2015	2016	2017
% Satisfactory	99.7%	88.4%	96.27%	97.46%

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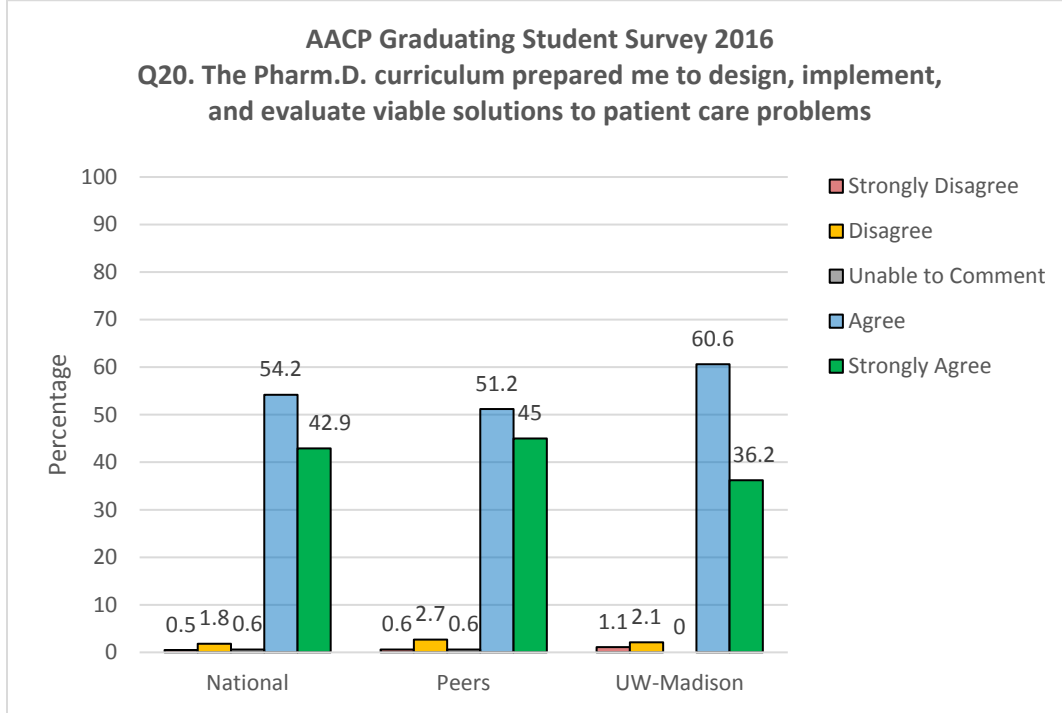
6a. Communication with patients and/or caregivers – To obtain patient health-related information and Provide appropriate health and medication information and confirm understanding of the information provided.



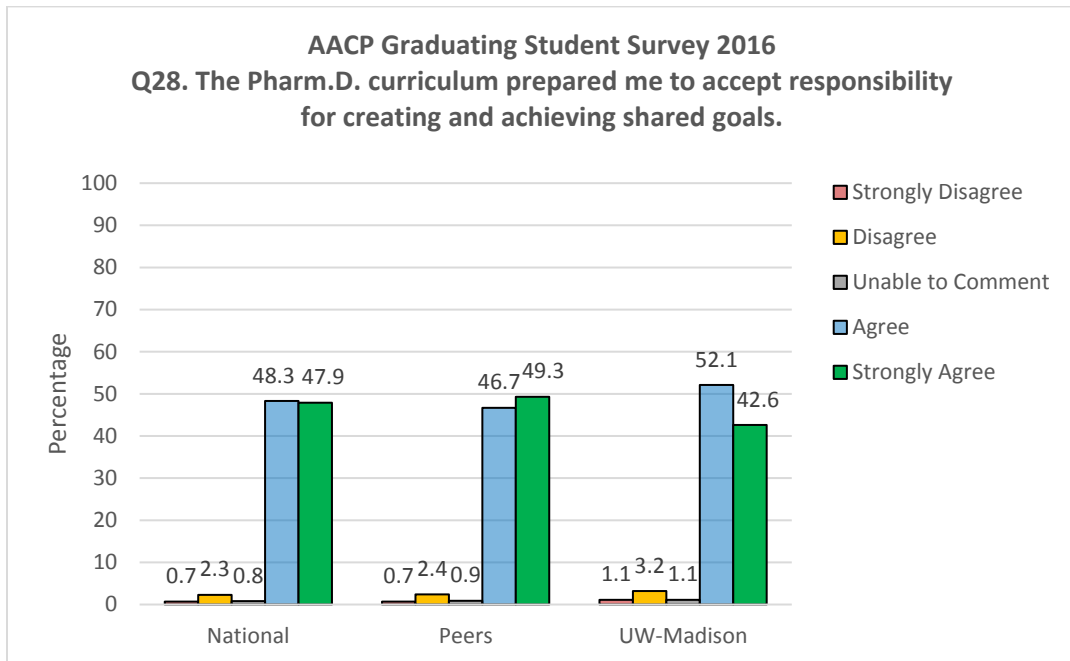
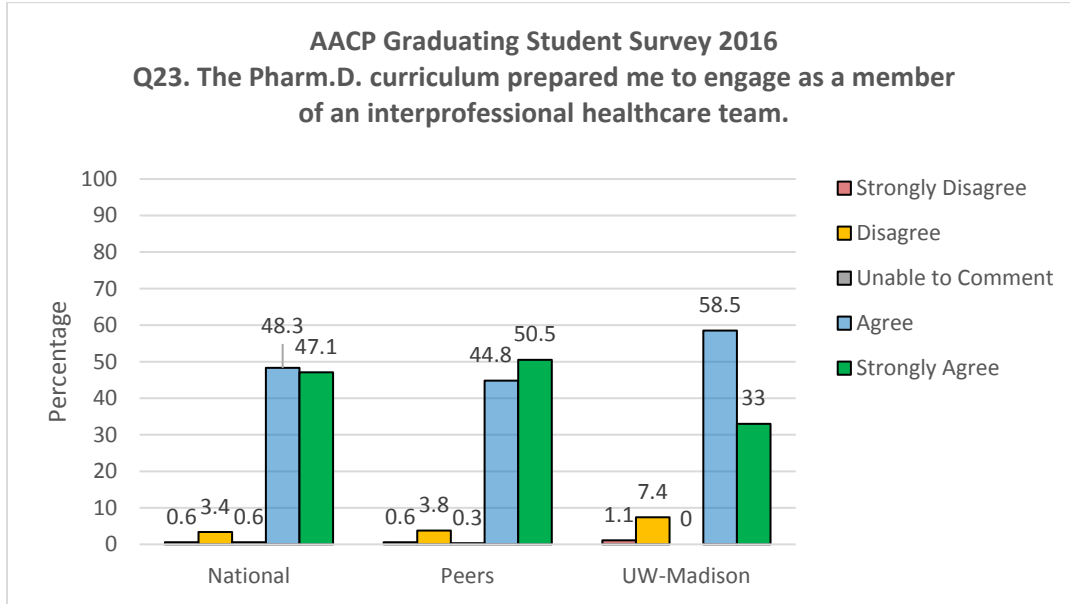
6b. Communication with health professionals – To Obtain, provide and confirm accurate and concise patient and medication information



6c. Communication for documentation - Document therapeutic assessments and clinical interventions regarding drug therapy.

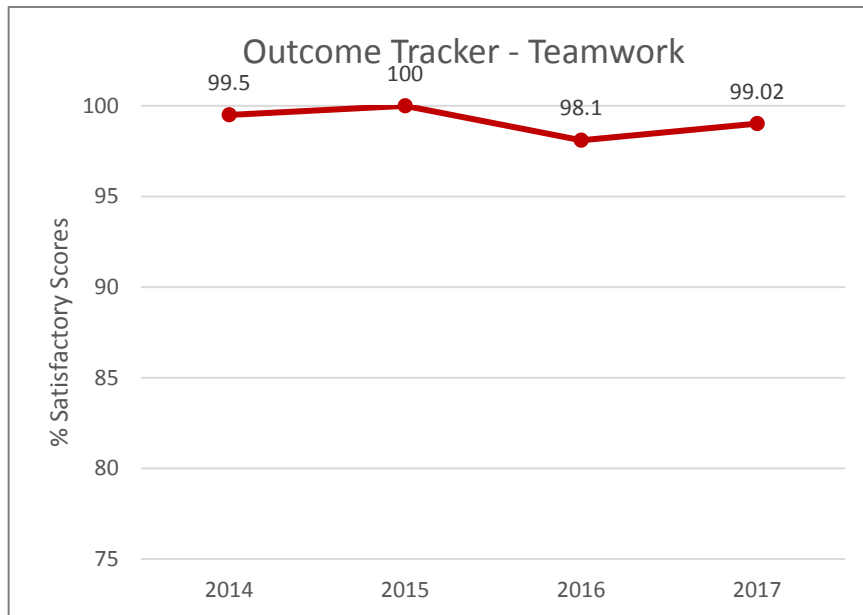
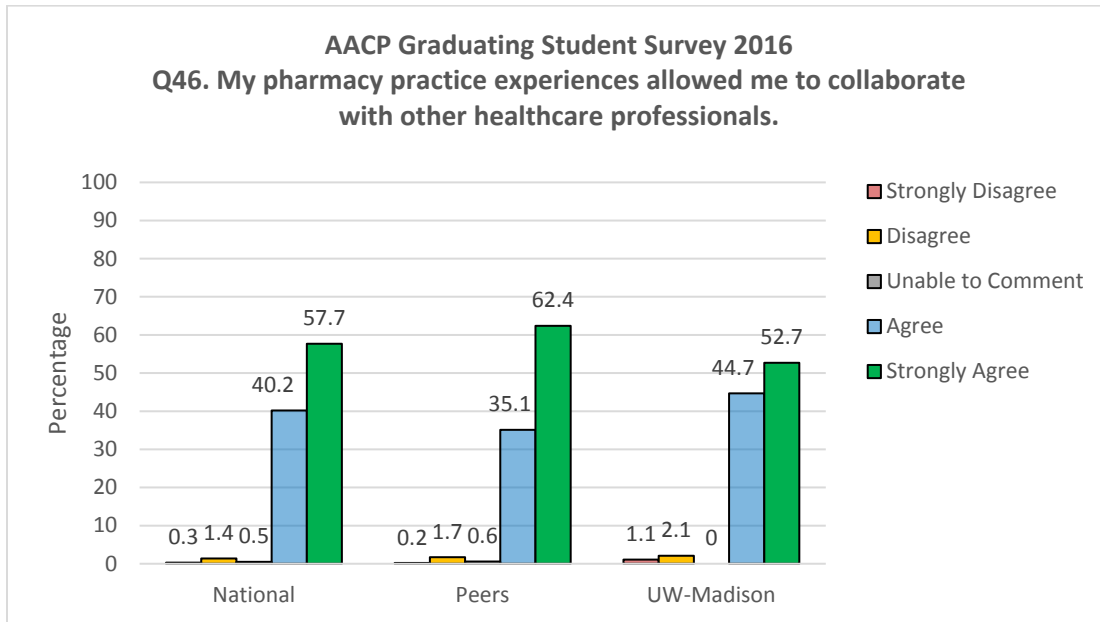


7. Teamwork - Collaborate effectively with pharmacy colleagues, other healthcare professionals and patients and/or their caregivers.





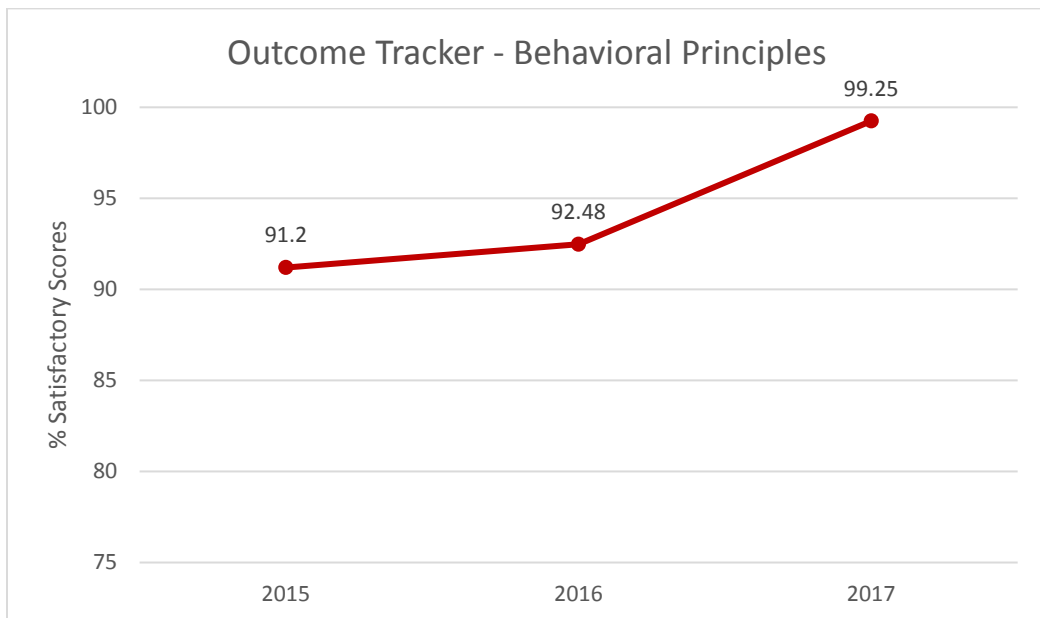
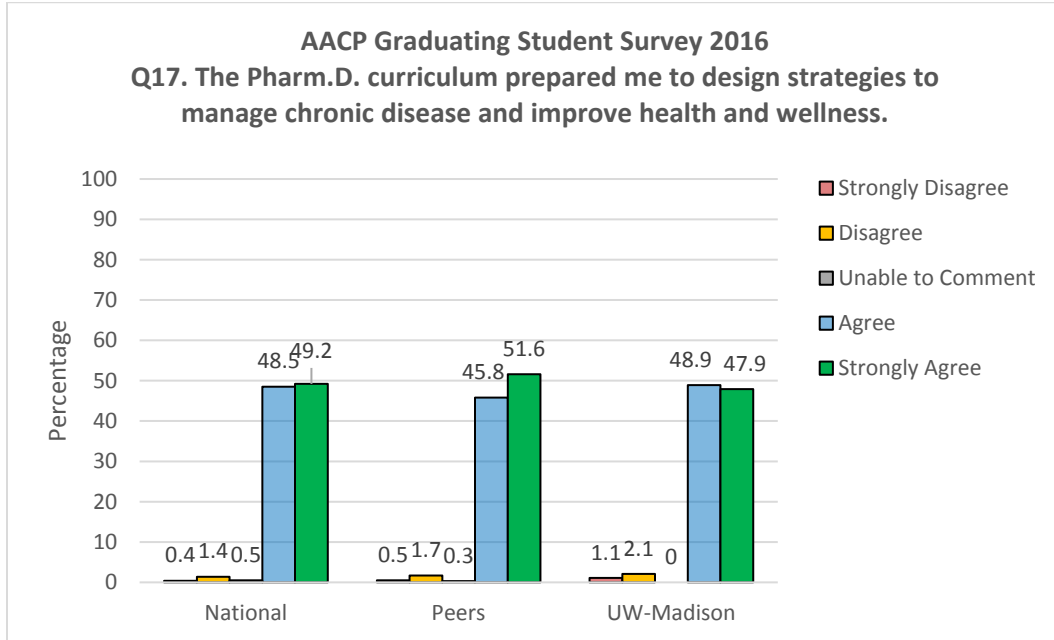
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Outcome Tracker	2014	2015	2016	2017
% Satisfactory	99.5%	100%	98.1%	99.02%

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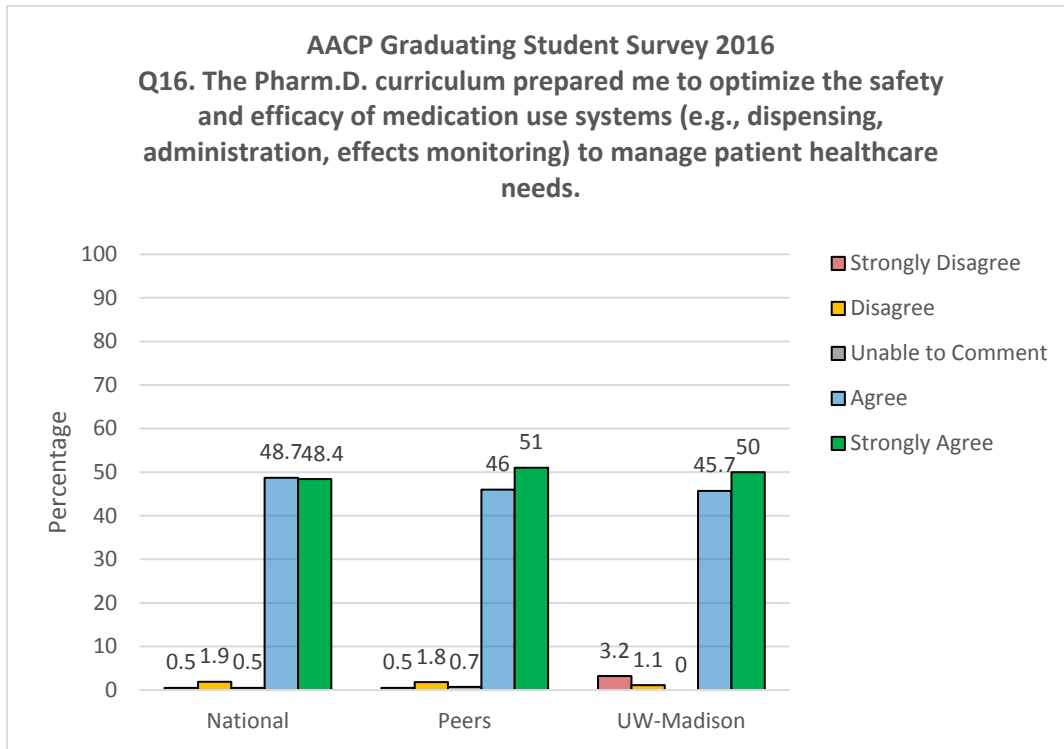
8. Behavioral Principles - Apply social and behavioral principles and theories in the design, delivery, and evaluation of pharmaceutical care.



Outcome Tracker	2015	2016	2017
% Satisfactory	91.2%	92.48%	99.25%

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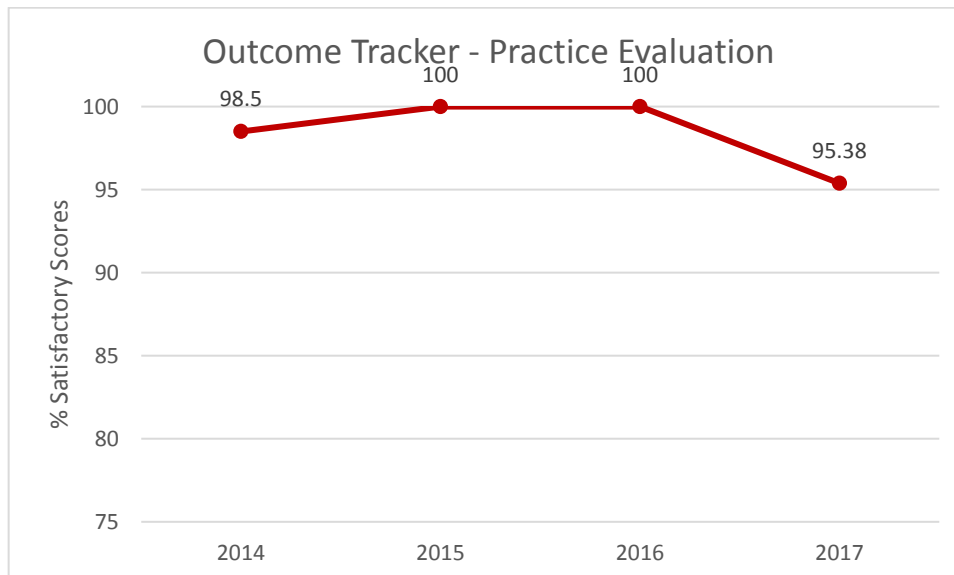
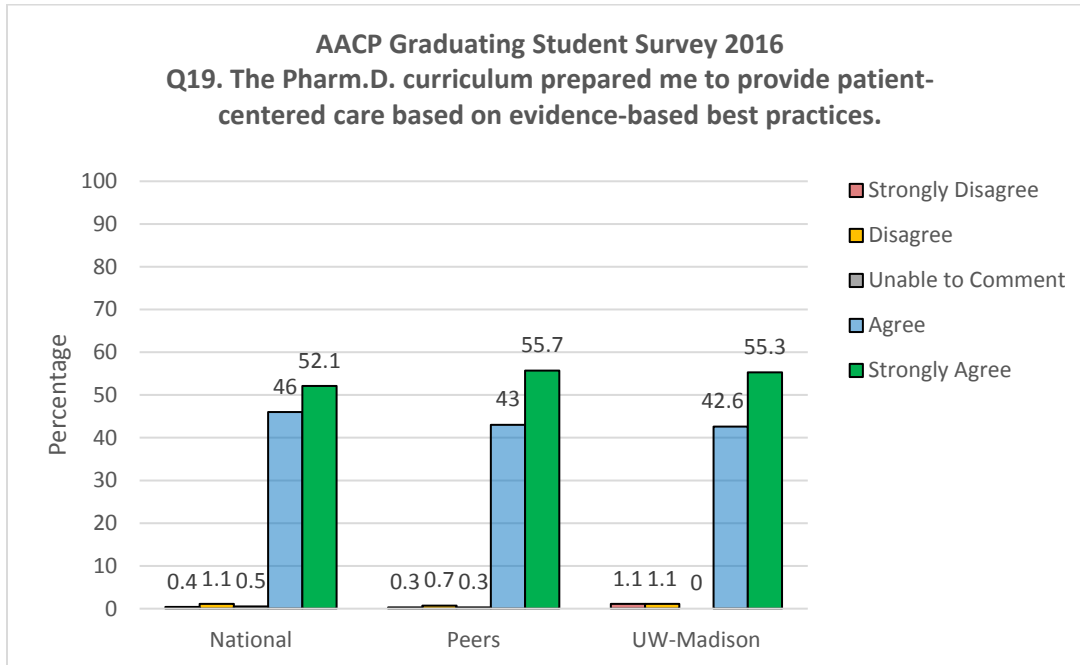
9. Management Principles - Use management principles to analyze and evaluate pharmacy operations and personnel, including optimizing physical and technological resources, to assure safe, efficient and effective management of medication distribution, control, and use systems.



Outcome Tracker	2017
% Satisfactory	85.48%

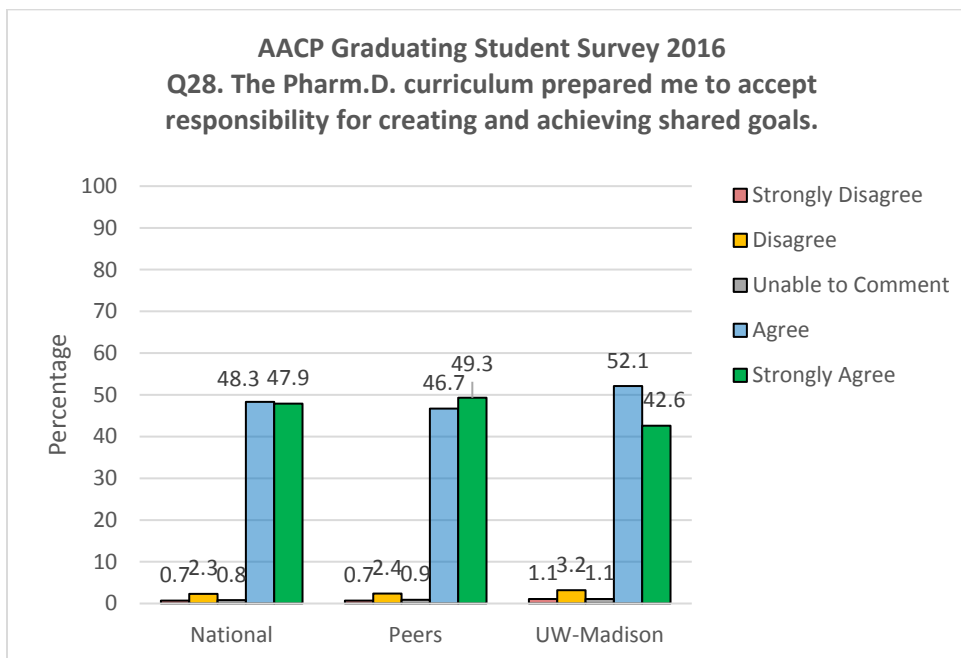
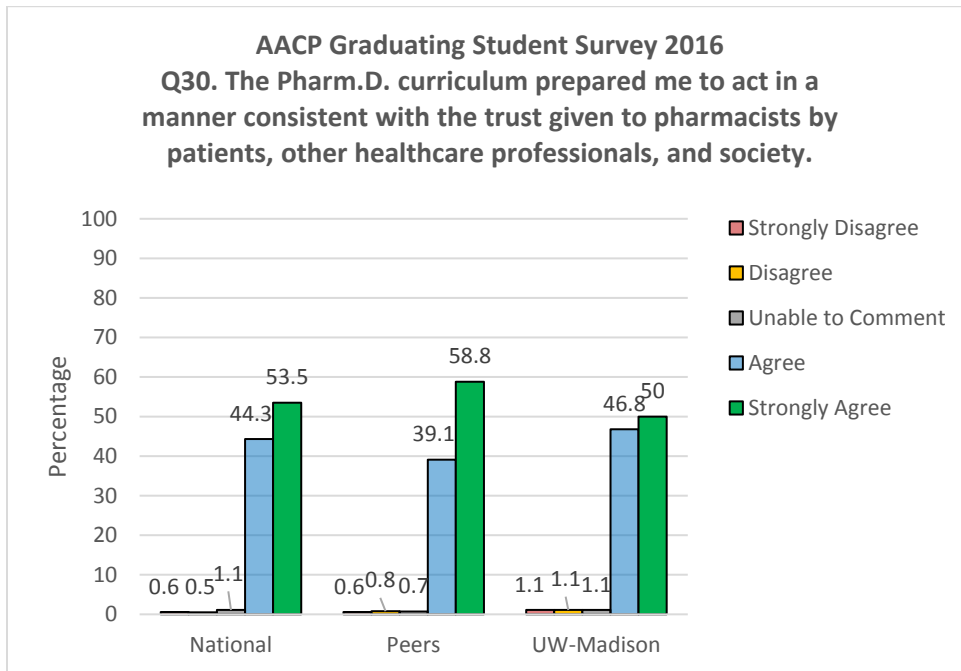
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10. Practice Evaluation - Apply patient- and population-specific data, quality assurance strategies, and evaluation to develop and implement practice-based drug use strategies and public health policies to assure that medication use systems minimize drug misadventuring, optimize patient outcomes, and address public health problems.



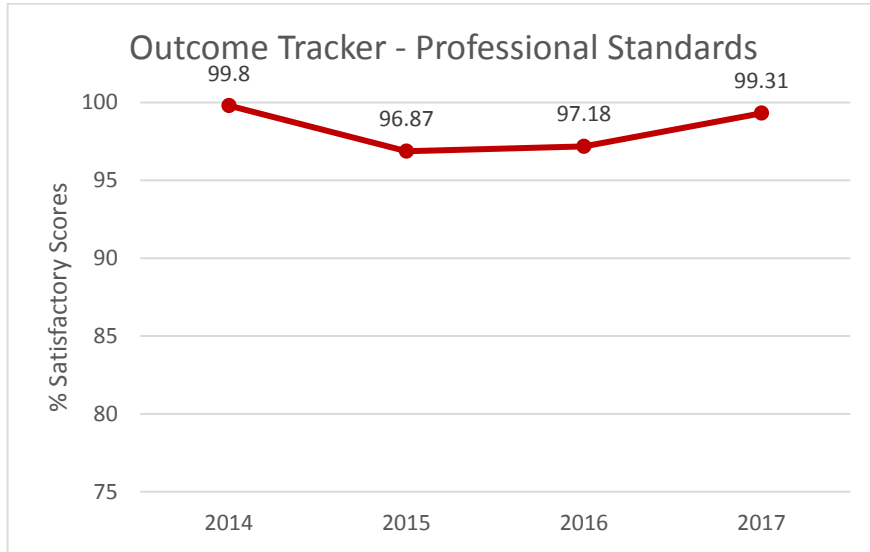
Outcome Tracker	2014	2015	2016	2017
% Satisfactory	98.5%	100%	100%	95.38%

11. Professional Standards - Apply relevant legal, ethical, social, historical, economical, and professional principles to perform all professional activities.





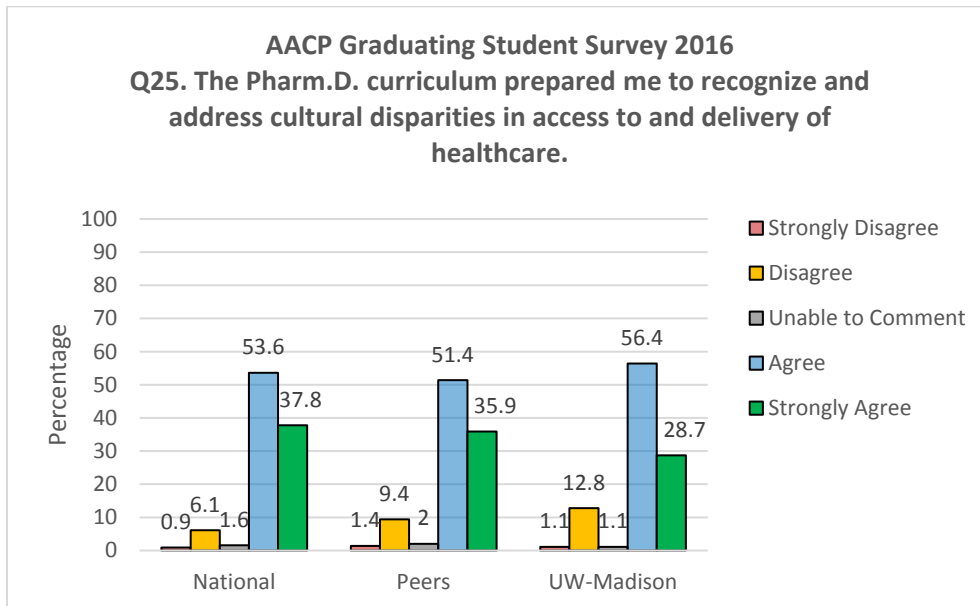
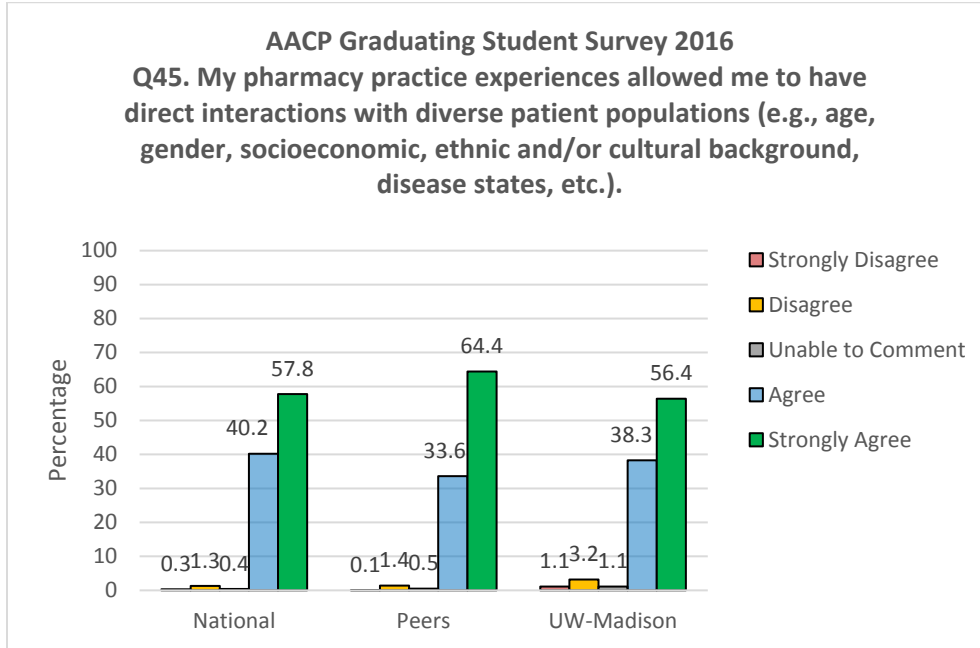
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Outcome Tracker	2014	2015	2016	2017
% Satisfactory	99.8%	96.87%	97.18%	99.31%

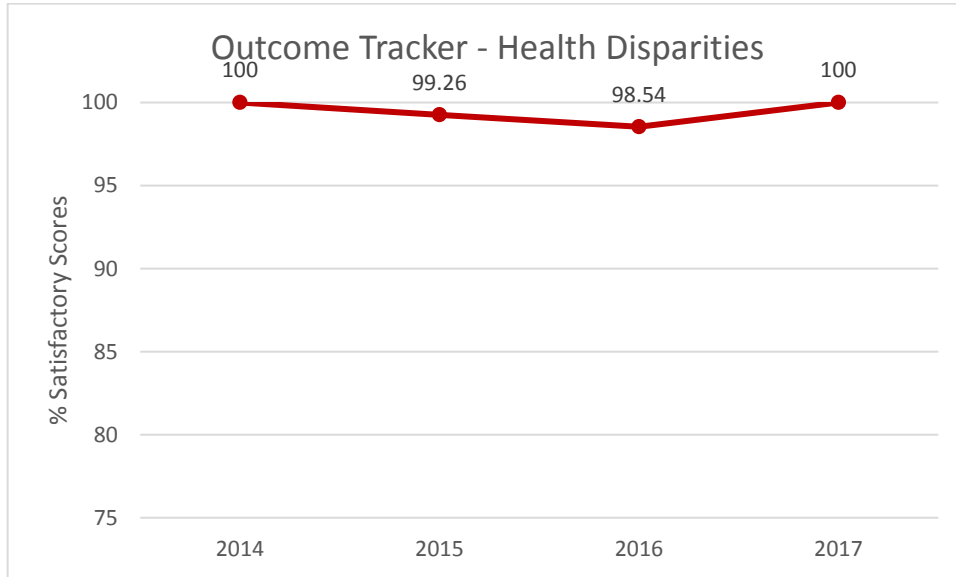
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12. Health Disparities - Identify causes of health disparities and incorporate principles of cultural awareness, sensitivity, and competence into plans to address these issues in practice.





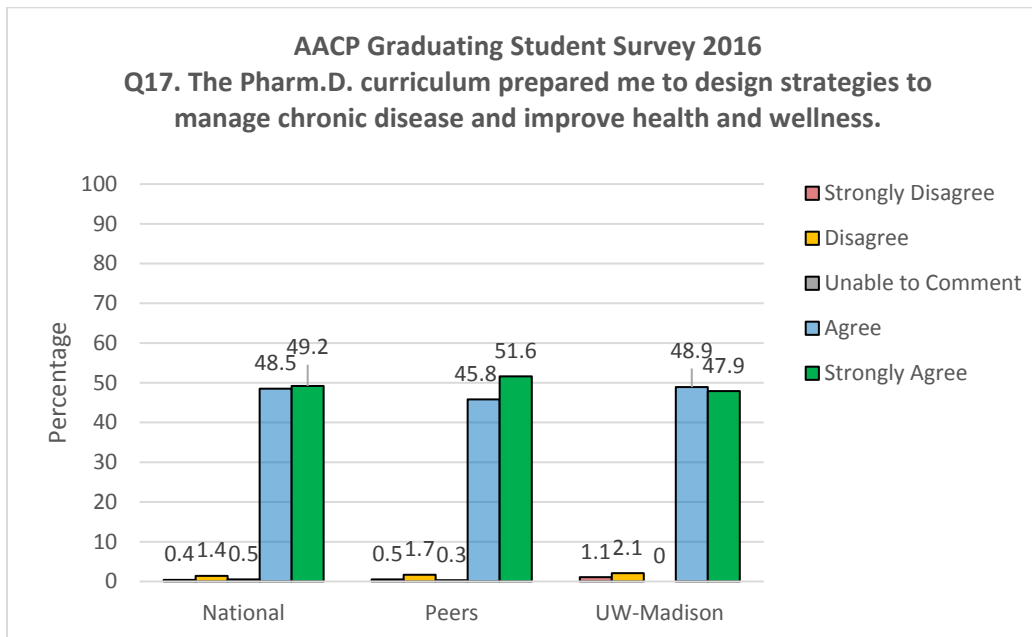
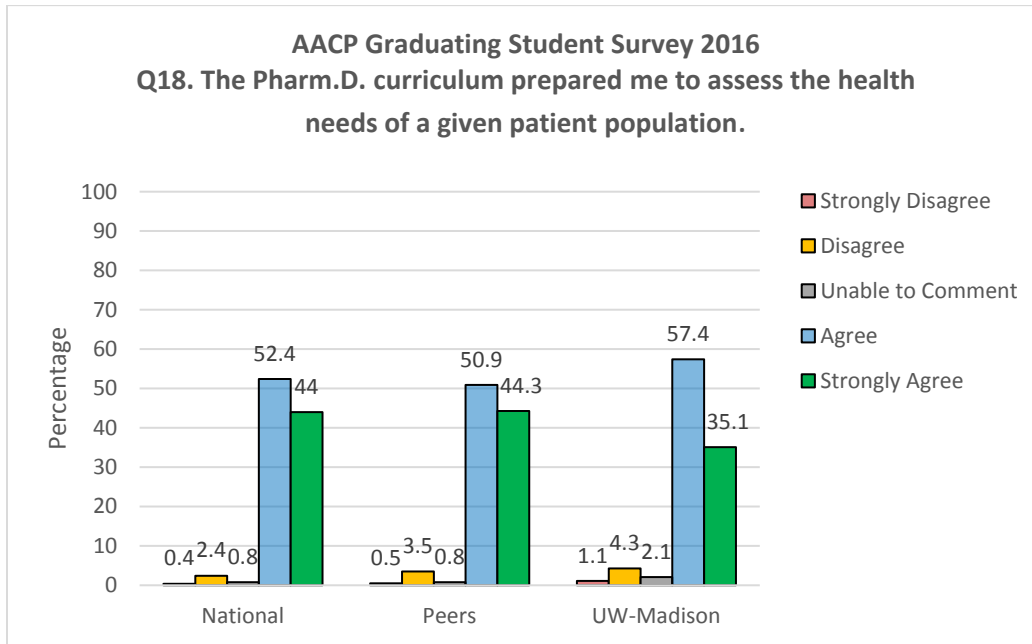
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Outcome Tracker	2014	2015	2016	2017
% Satisfactory	100%	99.26%	98.54%	100%

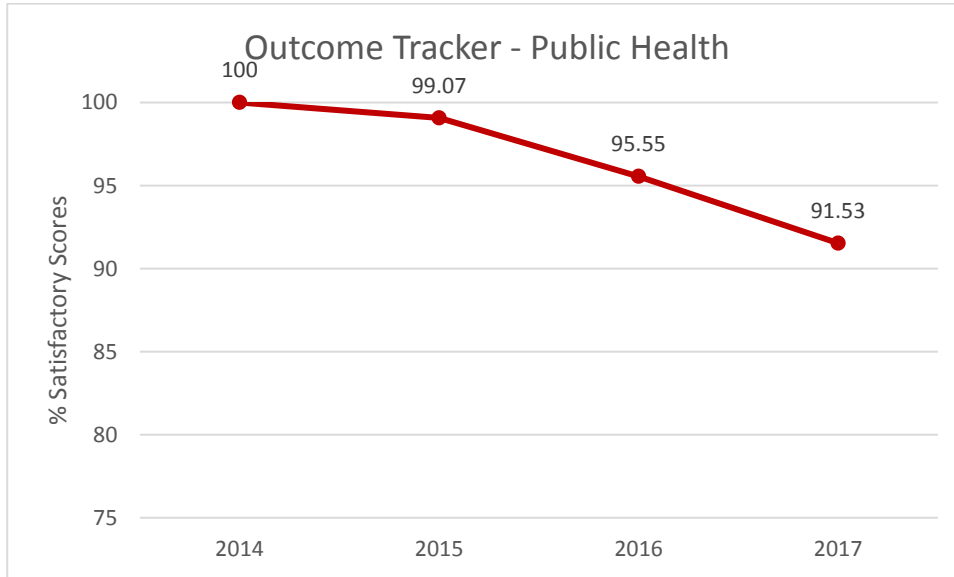
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13. Public Health - Identify and address public health problems and promote health and wellness. Design individual and population-specific, evidence-based disease prevention and disease management programs (such as medication therapy management) and protocols based upon analysis of epidemiologic and pharmaco-economic data, medication use criteria, medication use review, and risk reduction strategies.





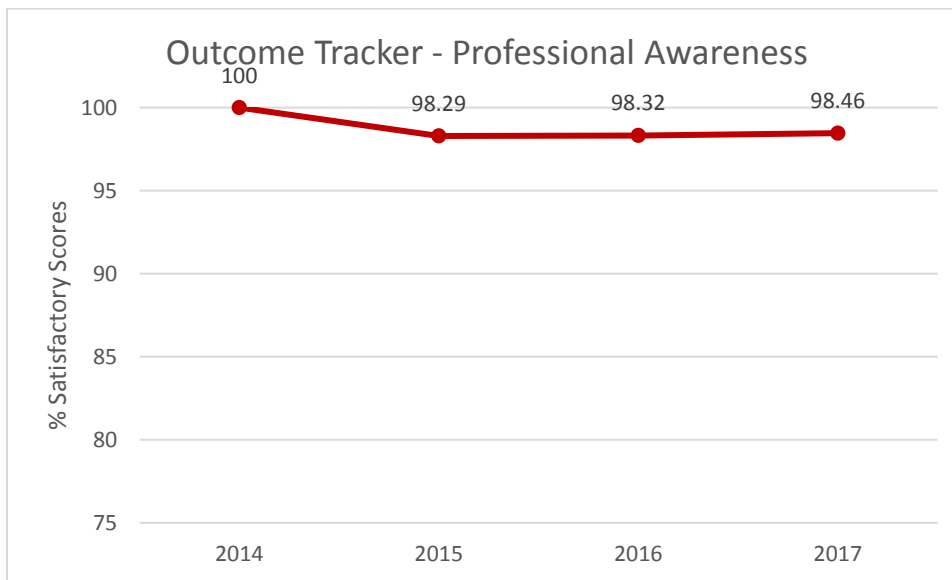
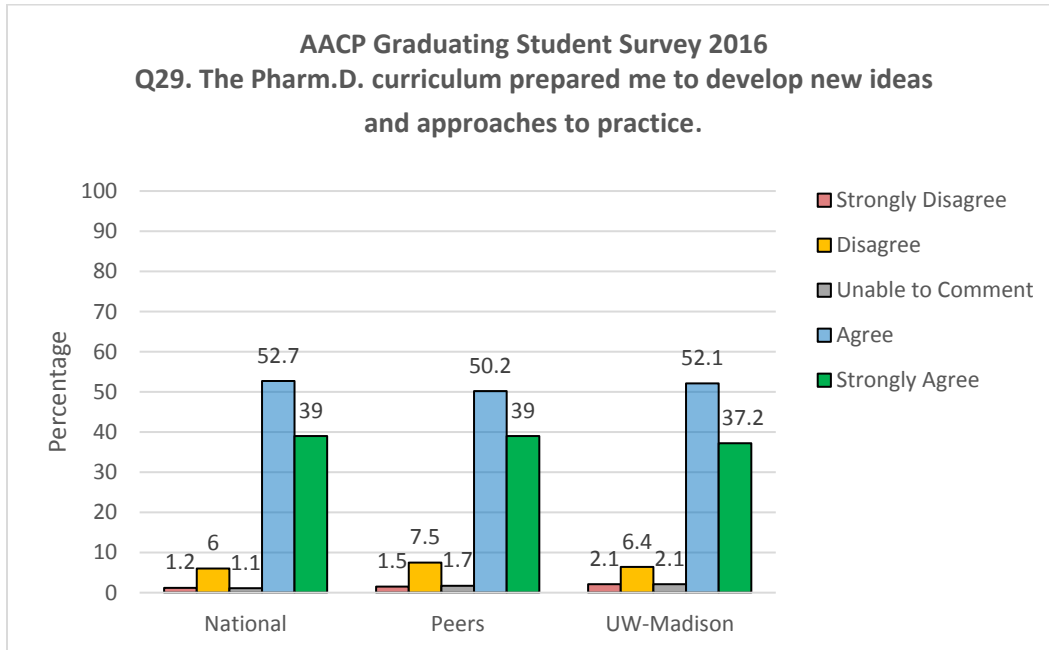
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Outcome Tracker	2014	2015	2016	2017
% Satisfactory	100%	99.07%	95.55%	91.53%

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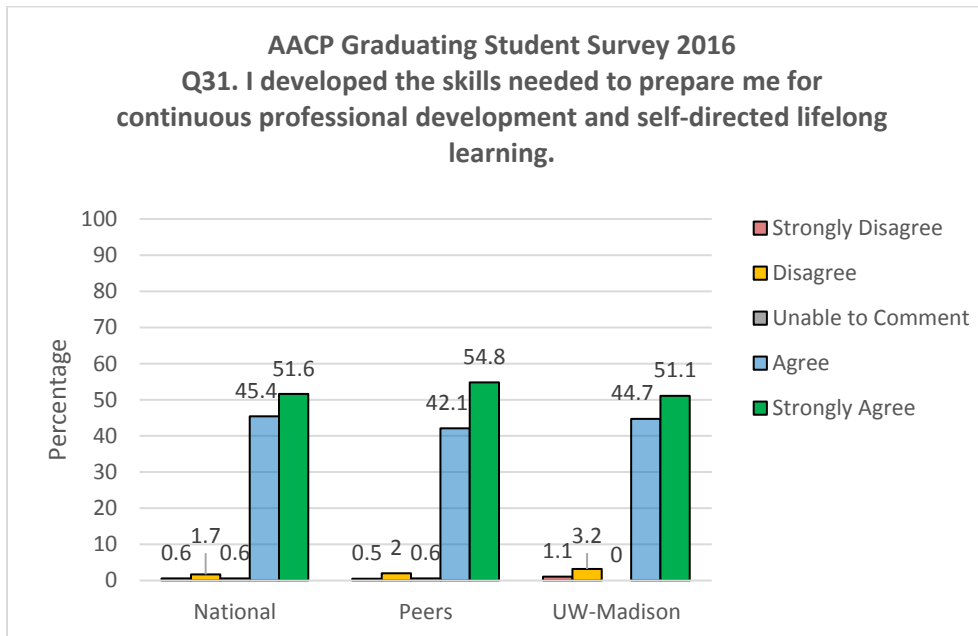
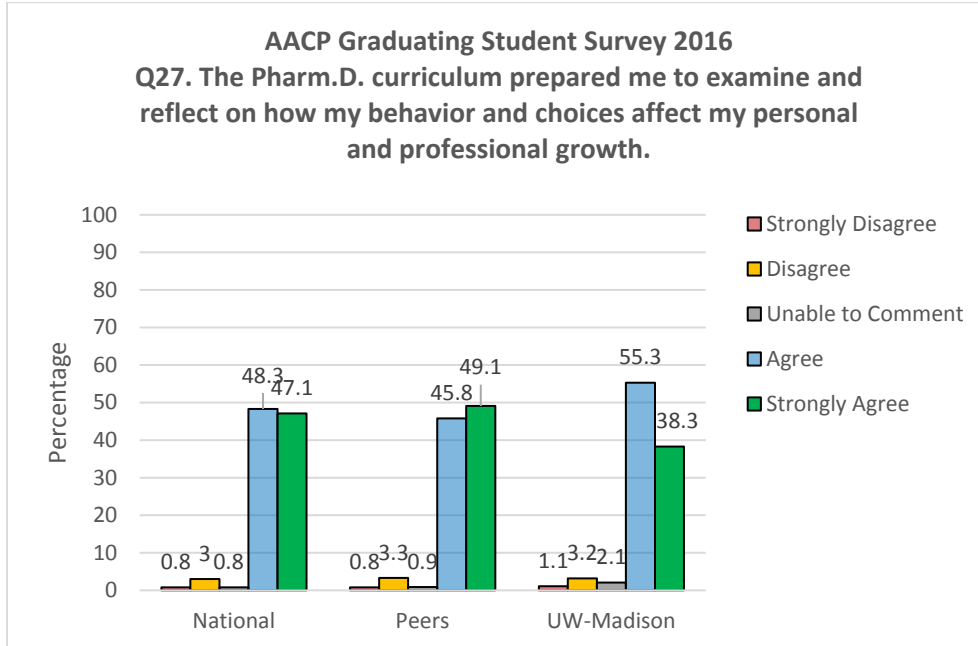
14. Professional Awareness - Identify emerging health-related issues, products, and services and analyze their potential implications for: disease prevention and/or treatment services; management of human, physical, medical, information, and technological resources involved in providing patient care; and patient-specific and population-based therapeutic outcomes.



Outcome Tracker	2014	2015	2016	2017
% Satisfactory	100%	98.29%	98.32%	98.46%

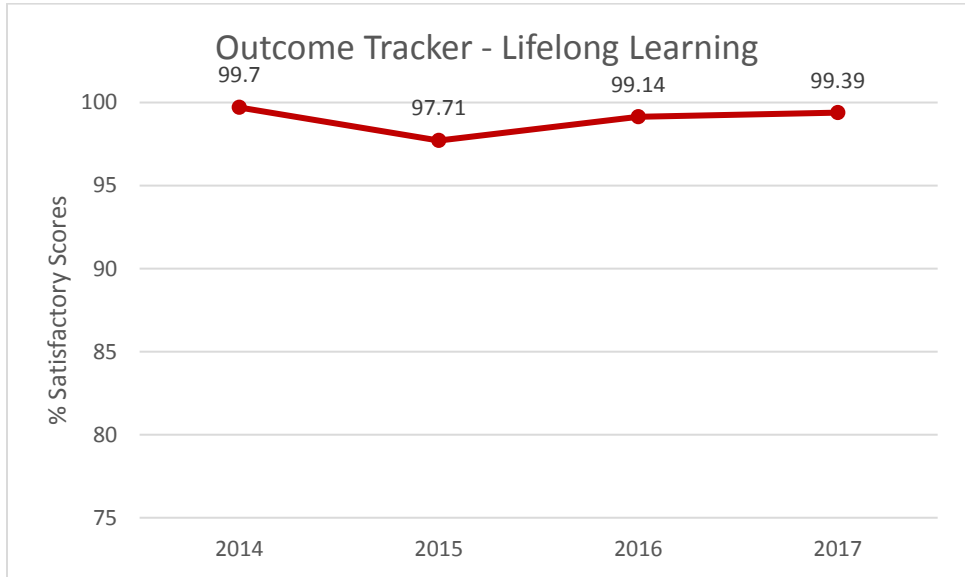
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15. Lifelong Learning - Lifelong learning. Create and enhance a personal plan for continuing professional development to promote lifelong learning and ensure maintenance of professional competence.





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Outcome Tracker	2014	2015	2016	2017
% Satisfactory	99.7%	97.71%	99.14%	99.39%