

UW-Madison School of Pharmacy 2004-2005 Assessment Report

Submitted by:
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I. Overview of Assessment in the School of Pharmacy

Administration and faculty of the School of Pharmacy are engaged in the ongoing assessment program. We distinguish three general levels at which assessment is conducted: institution-level (addressing administration of the School as a whole or units contained within), program-level (addressing performance of a specified curriculum), and course-level (focusing on teaching/learning in the context of specific courses).

At the institution-level, the Dean, associate deans, and division chairs share responsibility for assessment. At the program-level, the Academic Planning Council (APC), chaired by the Dean, is the primary oversight body for school-wide program-level assessment activities. The APC shares program assessment responsibilities with the Educational Policy and Planning Committee (EPP), a standing committee within the School that has primary responsibility for curriculum development, review, and revision. At the course-level, individual instructors hold major responsibility for carrying out evaluation activities. Division chairs as well as faculty mentoring and review committees provide varying feedback and oversight roles.

Since July 2004, coordination of assessment activities has been the responsibility of Prof. Jeanine Mount, Associate Dean for Academic Affairs. Her overall responsibilities include: assessment of the Doctor of Pharmacy and B.S. Pharmacology/ Toxicology programs; curricular policy and planning; and monitoring and addressing problems with students' academic progress. Ms. Emily Gilbert, Assistant to the Dean working in the Student Services unit, facilitates many of the School's ongoing assessment activities. Ms. Rhonda Coyier, working with Assoc. Dean Mount, provides support to major data gathering efforts.

II. Program Assessment Activities

Tables 1 and 2 provide overviews of assessment-related activities in the School of Pharmacy. Table 1 uses the standard reporting grid to identify Academic Program and Student Outcomes assessment for all academic programs within the School. Table 2 provides more detailed information regarding assessment activities related to the Doctor of Pharmacy (PharmD) program, describing what is assessed and how it is assessed. Comparable documents are in development for other academic programs within the School.

The focus of this report is program assessment, thus information is presented on a program-by-program basis. Several additional details provide context for this report:

- Many assessment activities in 2004-05 are related to formal program reviews. Self-study for re-accreditation of the Doctor of Pharmacy program currently is underway. Reviews of the MS/PhD programs and B.S. Pharmacology-Toxicology program are scheduled for 2006-07).
- Only major assessment activities are described; smaller-scale (e.g., course-specific) efforts are not included.
- Some activities relate to more than one program; this is indicated, as appropriate.

Doctor of Pharmacy (PharmD) Program

As Tables 1 and 2 indicate, the Doctor of Pharmacy Program is the focus of numerous assessment activities. Highlights of these activities in 2004-05 are as follows.

1. Self-Study in Preparation for Program Accreditation Review

A major School activity in 2004-2005 was the School's Self-Study, required by the Accreditation Council for Pharmacy Education (ACPE) in preparation for site visit by an accreditation review team. The standard ACPE accreditation cycle is 6 years and our site visit is scheduled for April 4-6, 2006. Self-Study documents will be completed in Fall 2005 for submission to ACPE and distribution to review team members in advance of their site visit.

The Self-Study focuses on ACPE's eight established standards areas for Doctor of Pharmacy programs: 1) mission, planning, and assessment, 2) organization and administration, 3) curriculum, 4) students, 5) faculty; 6) library and educational resources, 7) physical and practice facilities, and 8) financial resources. The Self-Study Steering Committee is co-chaired Associate Professors Ron Burnette, Barry Gidal, and Dave Mott. Eight faculty/staff subcommittees, corresponding to the eight program standards areas, have been established to address each of the standards. Activities of these subcommittees have been coordinated with activities of the School's standing committees.

2. Surveys of Current Students, Graduates/Alumni, and Clinical Instructors/Employers

During 2004-05, a series of surveys were conducted with current PharmD students, members of the Class of 2005, alumni from the Classes of 2001-2004, and Clinical Instructors, including those who employ alumni from the Classes of 2001-2004. Conducting this array of surveys at one point in time has provided us with a cross-sectional snap-shot of program operations and outcomes. We utilized the same/similar items across all of these survey instruments. Most importantly, all respondents addressed a series of core pharmacy practice competencies that are goals the PharmD program. This approach has allowed us to: 1) observe trends in learning and competency development among currently enrolled students, 2) gather alumni's current assessments of the PharmD program and compare these with parallel assessments made at the time of their graduation, and 3) identify employers' evaluations of the levels and areas of competency of graduates of the PharmD program.

In addition to their immediate use in the Self-Study process, results of these surveys are informing the work of standing committees of the School (e.g., the curriculum committee, Academic Planning Council). Plans are to continue each of these activities on either an annual- or a 3-year basis.

3. National Licensing Examination Pass Rates

Graduates of the School of Pharmacy professional (PharmD) program seeking professional licensure in Wisconsin must complete national pharmacy board examinations and state licensure testing. Graduates' performance on these exams is a key indicator of program outcomes that we continue to monitor. The North American Pharmacists Licensure Examination (NAPLEX) is used for licensure in all states in the U.S. The Multistate Pharmacy Jurisprudence Exam (MPJE) is a state-specific exam that combines elements of federal and Wisconsin pharmacy law.

Table 3 provides a comparison between the percentages of UW-Madison School of Pharmacy graduates passing each of these exams with the national passing rates. Historically, University of Wisconsin-Madison School of Pharmacy graduates have been very successful on these examinations. This trend continues with UW graduates generally having passing rates 5-10% above national rates.

B.S. Pharmacology and Toxicology Program

The School offers an undergraduate degree, the B.S. Pharmacology and Toxicology (Pharm-Tox). Taught chiefly by faculty of the School's Pharmaceutical Sciences division, this degree provides academic background for careers in the pharmaceutical industry, in government agencies, or as preparation for graduate or professional study. Admission to the program is competitive and requires two years of preparatory coursework. Following admission, students enroll in a 4-semester sequence of core courses (e.g., pharmacology, toxicology, drug delivery, genetics, laboratory techniques) and electives.

Each Pharm-Tox student is required to complete a laboratory-based Independent Study research project with a member of the program faculty. The project is presented during the senior seminar which is required in the final semester of the program and provides direct assessment of student outcomes. During 2004-05, indirect assessments continued to include exit interviews with select graduating students; these are conducted annually. Also carried out was a survey of all current Pharm-Tox students; plans are to repeat this in 2005-06 in advance of program review planned for 2006-07. Also to prepare for program review, we plan to conduct an Alumni Survey in the upcoming year.

Graduate Programs

The School of Pharmacy offers graduate programs in three different areas. Professor Dan Rich, Associate Dean for Research and Graduate Studies, has responsibility for oversight of all graduate programs.

1. M.S./Ph.D. Programs in Pharmaceutical Sciences and in Social and Administrative Sciences

The Pharmaceutical Sciences division offers the M.S. and Ph.D. degrees and uses the stages in the drug development process – drug discovery, drug action, and drug delivery – as a unifying rubric. The Social and Administrative Sciences (SAS) division also offers the M.S. and Ph.D. degrees. Most students' programs draw on traditional social science disciplines (e.g., economics, sociology, psychology); concentrations in continuing education in pharmacy and in history of pharmacy also are possible.

Assessment activities in the Pharmaceutical Sciences and the Social and Administrative Sciences graduate programs parallel one another. Three types of direct assessment are conducted: 1) completion and defense of an M.S. thesis or a Ph.D. dissertation, 2) written and oral preliminary examinations for all Ph.D. students, and 3) annual review of each student's progress by program faculty. Indirect assessment includes student and alumni surveys that are planned for students in both programs for the upcoming years. All of these are elements of the assessment plan that is in the process of development.

2. M.S. Pharmacy Program

The Master of Science in Pharmacy is a terminal Master's degree that emphasizes hospital pharmacy management. The program is offered in coordination with the UW Hospital and Clinics as a two-year combined residency and academic degree program (i.e., Pharmacy Practice Management/M.S.).

The M.S. Pharmacy program is accredited by the American Society of Health-system Pharmacists (ASHP) as a Specialized Residency. Accreditation reviews occur on a 6-year cycle, with the most recent review occurring in 2004. Within the program, each student is required to complete a Pharmacy Practice project. This provides direct assessment of student learning outcomes and competencies. While a student is enrolled in the program Student progress is assessed every 2 months.

III. PLANS FOR 2005-2006

Plans for 2005-06 are to continue assessment activities that now are underway. These are: 1) re-accreditation of the Doctor of Pharmacy program, 2) preparing for reviews of the B.S. Pharmacology-Toxicology and graduate programs, 3) developing assessment plans for all School programs, and 4) revising the School's instructional evaluation system.

Re-accreditation of the Doctor of Pharmacy (PharmD) Program. This continues to require significant effort on the part of School faculty and staff in advance of site visit that is scheduled for April 2006. As a major assessment activity, it already is providing valuable information regarding program operation. We anticipate that feedback from our accrediting organization will be similarly helpful.

Preparing for 2006-07 Program Reviews. The extensive self-study required for accreditation of the PharmD program provides an excellent foundation for review of other academic programs within the School. As that process draws to conclusion, the School's graduate studies and curriculum committees will be working toward review of the graduate programs and B.S. Pharmacology and Toxicology programs.

Development of Assessment Plans for all School programs. Goal for 2005-06 include formal approval of the Assessment Plan for the Doctor of Pharmacy (PharmD) Program is pending and completion of assessment plans for the BS in Pharmacology and Toxicology Program and for the Graduate programs. The latter are in early stages of development and will be completed in anticipation of program review in the 2006-07.

Revision of Instructional Evaluation System. This involves two lines of effort. The first involves review and revision of the course/instructor/teaching assistant evaluation forms, data collection procedures, and feedback processes used in courses throughout the School of Pharmacy. Support from the University Assessment Council is facilitating this undertaking. The new evaluation process will improve summative evaluations and provide a flexible process for formative evaluations. The second line of effort involves implementing a systematic peer-evaluation process for use across instructors/courses within the School.

Table 1: Academic Program and Student Outcomes Assessment Activity, 2004-2005

Major/Academic Program		Level	Has Assessment Plan	Direct Indicators/Measures								Indirect Indicators/Measures					
				National Exams	Local Exams	Capstone Course(s)	Embedded Testing	Student Portfolios	Thesis or Dissertation	Pre-Test/Post-Test	Other Milestone Evaluation	Student Surveys	Exit Surveys	Alumni Surveys	Employer Surveys	External Surveys	Other Indirect Measures
756	Pharmacy (Pharm D)	Professional	Yes	1,2 (A)	3 (A)	4 (A)	—	—	—	—	5 (A)	6,7 (3),(A)	8 (A)	9 (3)	10 (A)	—	11,12 (6),(A)
750	Pharmacology and Toxicology	Bachelors	No	—	—	13 (A)	—	—	—	—	—	14 (3)	15 (A)	16 (*)	—	—	—
744	Pharmaceutical Sciences	Graduate	No	—	—	—	—	—	17	—	18,19 (A),(A)	20 (*)	—	21 (*)	—	—	—
912	Social and Administrative Sciences in Pharmacy	Graduate	No	—	—	—	—	—	17	—	18,19 (A),(A)	20 (*)	—	21 (*)	—	—	—
G756	Masters in Pharmacy	Graduate	Yes	—	—	—	—	—	22	—	18 (2 mo)	—	23 (A)	24 (5)	—	—	11 (6)

Key:

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| 1 Multistate Pharmacy Jurisprudence Examination (MPJE) | 13 Independent Study/Senior Seminar |
| 2 North American Pharmacist Licensure Examination (NAPLEX) | 14 Current Pharmacology -Toxicology Students Surveys |
| 3 Patient Consultation Examination | 15 Pharmacology-Toxicology Student Exit Interviews |
| 4 Advanced Practice Clerkships | 16 Pharmacology-Toxicology Alumni Survey |
| 5 Objective Standardized Clinical Examination (OSCEs) | 17 Thesis/Dissertation |
| 6 Current PharmD Students Survey | 18 Progress Reviews |
| 7 Clerkship Evaluations | 19 Preliminary Examinations |
| 8 New PharmD Graduates Survey and Exit Interviews | 20 Current Graduate Students Survey |
| 9 Recent PharmD Alumni Survey | 21 Graduate Alumni Survey |
| 10 Clinical Instructors/Employers Survey | 22 Pharmacy Practice Project |
| 11 Accreditation Review | 23 MS Pharmacy Exit Interviews |
| 12 Clerkship Forums | 24 MS Pharmacy Alumni Survey |

Schedule: (2 mo) = every 2 months (A) = annual (3) = every 3 years (5) = every 5 years (6) = every 6 years (*) = planning in process

Table 2: Core Assessment Activities for the Doctor of Pharmacy (PharmD) Program

ACTIVITY	WHAT ASSESSED	WHO/ ASSESSED	WHEN
Capstone Evaluation			
• Objective Structured Clinical Exams (OSCEs)	Students' clinical skills and professionalism	2 nd , 3 rd , and 4 th year PharmD students (all)	1 or 2 times annually
• Communication practical exam	Students' patient consultation skills	3 rd year PharmD students (all)	Annually
• Advanced practice clerkships	Students' clinical skills and professionalism	4 th year PharmD students (all)	Each 7 or 8 week rotation
National Testing & Standards			
• North American Pharmacist Licensure Examination (NAPLEX)	Graduates' knowledge, judgment, and skills required as an entry-level pharmacist	Graduates seeking licensure	Following graduation
• Multistate Pharmacy Jurisprudence Exam (MPJE)	Graduates' knowledge of federal- and state-specific laws	Graduates seeking licensure	Following graduation
• Wisconsin patient consultation exam	Graduates' patient consultation skills	Graduates seeking licensure	Following graduation
• Program self-study and re-accreditation review	Curriculum, students, faculty, facilities, etc.	Students, faculty/staff and School	Regular 6-year cycle
Other Measures			
• Student/graduate surveys: 3 versions	<u>Core content:</u> Self-assessment of 11 competency areas; satisfaction (overall and specific program areas); School climate; pre-pharmacy curriculum.		
– New Graduate Survey	– Core + career employment plans	4 th year PharmD students (all)	Annually in April/May
– Current Student Survey	– Core	1 st , 2 nd and 3 rd year PharmD students (all)	Every 3 years
– Alumni Survey:	– Core + career/employment information	Alumni from past 6 years (sample)	Every 3 years
• Course evaluations		Enrolled students (all)	Each semester
• Academic Progress case analysis	Students' curricular progression and professionalism and factors affecting each	PharmD students (all)	Annually
• Graduation and attrition rates	Students' program completion	PharmD students (all)	Annually
• Grade point averages and trends	Students' course performance	PharmD students (all)	Annually
• Advanced Practice Clerkship Site Evaluation	Clerkship sites and preceptors	4 th year PharmD students (all)	Each 7 or 8 week rotation
• New Graduate Exit Interviews	Special topics (varying over time)	4 th year PharmD students (sample)	Annually
• Clinical Instructor Survey	Students' clinical skills; Clerkship program	Advanced practice clerkship instructors	Annually
• Clinical Instructor Forums	Special topics (varying over time)	Advanced practice clerkship instructors	Annually

Table 3: National Licensing Examination Pass Rates, 1999-2005

Year	North American Pharmacist Licensure Examination (NAPLEX)		Multi-state Pharmacy Jurisprudence Examination (MPJE)		
	UW-Madison SOP Graduate Success Rate*	National Success Rate	UW-Madison SOP Graduate Success Rate on Wisconsin MPJE*	UW-Madison SOP Graduate Success Rate on Other States' MPJE	National Success Rate
1999	97.7%	84.6%	100.0%	100.0%	92.5%
2000	100.0%	88.8%	100.0%	93.0%	92.0%
2001	98.1%	90.5%	100.0%	96.0%	92.1%
2002	98.0%	91.2%	94.9%	96.9%	89.3%
2003	100.0%	89.9%	98.0%	98.7%	85.6%
2004	99.3%	87.7%	94.5%	92.1%	85.2%
2005 [#]	99.1% ⁺	92.9% ⁺	96.7%	95.8%	88.5%

* Predominantly B.S. Pharmacy graduates until 2000; all Pharm.D. graduates as of 2001

[#] Results available through 8/31/05 for NAPLEX, through 6/30/05 for MPJE

⁺ Includes results using old and new NAPLEX passing standards