



THE UNIVERSITY OF ARIZONA COLLEGE OF PHARMACY

Center for Health Outcomes
& PharmacoEconomic Research

TRAINING PROGRAM IN Health Outcomes and Pharmacoeconomic Research

- ▼ September 25-28, 2017
- ▼ Tucson University
Park Hotel
- ▼ TUCSON, ARIZONA

*A 4-day, applied
training program
for personnel in the
pharmaceutical
industry, health care
delivery systems,
and other health care
organizations*

Sponsored by
The University of Arizona
College of Pharmacy



AN **Overview** OF THE Training Program

The goals of higher quality, lower costs, and reasonable access to medical care are universally sought by patients, providers and payers. To address these goals, the Center for Health Outcomes and PharmacoEconomic Research is teaching the tools of pharmacoeconomics and health outcomes assessment to professionals whose job responsibilities include the application or interpretation of pharmacoeconomic information. A 4-day training program has been developed and is aimed at professionals with an entry to intermediate knowledge level. The curriculum will offer an overview of basic principles, as well as more in-depth instruction in selected areas. Participants will also learn to evaluate literature and will have the opportunity to work on a pharmacoeconomic project. Enrollment is limited to encourage interactive sessions and personalized attention. The program format will consist of lectures, case studies, workshops, and small group discussion. Participants in this training program will have the opportunity to confer with program faculty and other participants during the week in Tucson.

PREPARATION FOR THE PROGRAM

Our goal is to provide as much background and as many tools as possible to allow you to return to your professional setting and put what you have learned to work. We also want to offer opportunities to work on problems and situations specific to your particular setting.

During one of the workshops, you will be able to apply the knowledge and techniques presented to a case study. Prior to the program, we will provide some background reading as well as one article that will be evaluated during the course.

Participants need to have a calculator and are encouraged to bring laptop computers to enhance participation in workshops.

Continuing Education



PHARMACY

The University of Arizona College of Pharmacy is accredited by the

Accreditation Council for Pharmacy Education as a provider of continuing pharmacy education. Pharmacists participating in all sessions and completing associated activities may receive a total of **25.5** hours. Please provide your NABP identification number and birth date when you register so that we can upload credit data to the CPE Monitor system.



THE UNIVERSITY OF ARIZONA
College of Pharmacy



Monday, September 25

TRAINING PROGRAM IN Health Outcomes and Pharmacoeconomic Research Agenda

- 8:00-8:30 am** **Continental breakfast, registration, and welcome**
- 8:30-9:45** **Pre-test/Pharmacoeconomic principles**
- › Identify present knowledge base through pre-test
 - › Describe basic terminology
 - › Discuss how a medication can be cost-effective
 - › Describe various study perspectives
- ACPE Program Number: 0003-0000-17-041-L01-P (1.25 hours, knowledge-based activity)
- 9:45-10:15** **Pharmacoeconomic methodology**
- › Identify differences among various pharmacoeconomic methodologies, such as cost-effectiveness analysis, cost-benefit analysis, and cost-utility analysis
 - › Calculate the incremental cost-effectiveness for one medication over another
 - › Demonstrate utility measures such as the Time Trade Off and Standard Gamble
- ACPE Program Number: 0003-0000-17-042-L01-P (2.75 hours, application-based activity)
- 10:15-10:30** **Break**
- 10:30-11:30** **Pharmacoeconomic methodology** *(continued)*
- 11:30-12:00 pm** **Cost and outcomes data sources**
- › Identify data sources for costs and outcomes to populate pharmacoeconomic analyses
 - › Describe strengths and weaknesses of data sources
- ACPE Program Number: 0003-0000-17-043-L01-P (.5 hours, knowledge-based activity)
- 12:00-1:00** **Lunch**
- 1:00-2:15** **Pharmacoeconomic methodology – Utility workshop** *(continued)*
- 2:15-3:15** **Decision analysis/Pharmacoeconomic models**
- › Describe the steps in building a decision tree
 - › Illustrate how the data elements entered into a decision tree should be analyzed
 - › Apply a decision-analytic model to a pharmacoeconomic question
 - › Apply the fundamental concepts learned to build a decision tree utilizing Excel software
 - › Interpret findings from the decision analysis
- ACPE Program Number: 0003-0000-17-044-L01-P (2.25 hours, application-based activity)
- 3:15-3:30** **Break**
- 3:30-4:45** **Decision analysis/Pharmacoeconomic models** *(continued)*



Tuesday, September 26

8:00-8:30 am

Continental breakfast

8:30-9:45

Statistics in pharmacoeconomics

- › Discuss the basic principles considered in the statistical analysis of data, including levels of measurement, measures of central tendency, and variation
- › Explain common statistical results, including confidence intervals, hazards ratios, and p-values

ACPE Program Number: 0003-0000-17-045-Lo1-P (1.25 hours, knowledge-based activity)

9:45-10:00

Break

10:00-11:00

Sensitivity analysis

- › Discuss methods and limitations of one-way and two-way sensitivity analyses
- › Describe methodology used in probabilistic sensitivity analysis
- › Explain how to interpret graphic displays of sensitivity results

ACPE Program Number: 0003-0000-17-046-Lo1-P (1 hour, knowledge-based activity)

11:00-12:00

Budget impact analysis

- › Define budget impact analysis and differentiate from other financial models
- › Identify strengths and weaknesses of budget impact analysis
- › Discuss an application of budget impact analysis

ACPE Program Number: 0003-0000-17-047-Lo1-P (1 hour, knowledge-based activity)

12:00-1:00 pm

Lunch

1:00-2:00

Markov models: A subset of decision analysis

- › Differentiate between decision trees and Markov models
- › Identify disease conditions where a Markov analysis is preferred to a decision tree
- › Build a Markov model using Excel software

ACPE Program Number: 0003-0000-17-048-Lo1-P (1.5 hours, application-based activity)

2:00-2:15

Break

2:15-2:45

Markov models: A subset of decision analysis *(continued)*

2:45-3:00

Break

3:00-4:00

Interpreting cost-effectiveness results

- › Explain how to interpret data plotted on a cost-effectiveness grid
- › Discuss the use of cost-effectiveness acceptability curves

ACPE Program Number: 0003-0000-17-049-Lo1-P (1 hour, knowledge-based activity)

4:00-5:00

Value frameworks for pharmaceuticals

- › Describe initiatives by professional societies to create value frameworks
- › Discuss limitations of value frameworks
- › List factors contributing to the creation of value frameworks

ACPE Program Number: 0003-0000-17-050-Lo1-P (1 hour, knowledge-based activity)

5:45

Group dinner – depart from lobby



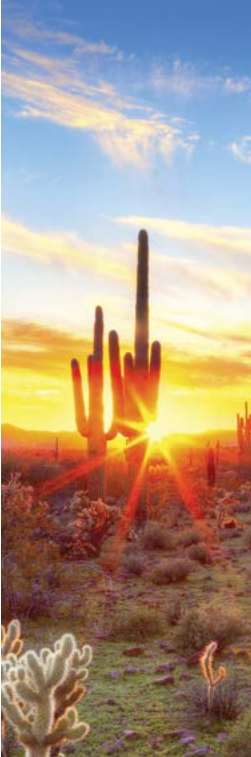
Wednesday, September 27

- 8:00-8:30 am** **Continental breakfast**
- 8:30-9:45** **Patient-reported outcomes (PRO) assessment**
- Discuss the role of patient-reported outcomes assessment in the evaluation of health care products and services
 - Complete and score the EQ-5D
- ACPE Program Number: 0003-0000-17-051-L01-P (1.25 hours, knowledge-based activity)
- 9:45-10:30** **Applying advanced analytics to improve medication adherence and health outcomes**
- Identify distinct nonadherence patterns and high-risk patients over time using innovative group-based trajectory analysis, machine learning approaches, and spatial analysis
- ACPE Program Number: 0003-0000-17-052-L01-P (.75 hours, knowledge-based activity)
- 10:30-10:45** **Break**
- 10:45-11:45** **Comparative effectiveness research**
- Describe methodologies that may be employed to conduct comparative effectiveness research, including associated advantages and disadvantages
- ACPE Program Number: 0003-0000-17-053-L01-P (1 hour, knowledge-based activity)
- 11:45-12:45 pm** **Lunch**
- 12:45-1:45** **Managed care workshop**
- Evaluate pharmacoeconomic data to make formulary recommendations
- ACPE Program Number: 0003-0000-17-054-L01-P (1 hour, application-based activity)
- 1:45-2:30** **Database studies** *(lecture and workshop)*
- Discuss the characteristics of a “good” database
 - Describe the limitations of database studies
 - Query AHRQ’s HCUP data
- ACPE Program Number: 0003-0000-17-055-L01-P (.75 hours, knowledge-based activity)
- 2:30-5:00** **Designing and conducting pharmacoeconomic studies** *(break included)*
- Identify the steps in planning a pharmacoeconomic study
 - Analyze a pharmacoeconomic problem and choose key elements for inclusion in a pharmacoeconomic evaluation
- ACPE Program Number: 0003-0000-17-056-L01-P (2.25 hours, application-based activity)

Comments from past program participants:

“This was a fantastic overview of HE & OR. I learned so much that is directly applicable to my job. You have given me a great introduction, information and tool set to use. Thank you!”

“The overall program was excellent, especially for my organization. I believe implementation of these concepts will eventually bridge PE communication gap between MCOs and industry.”



Thursday, September 28

- 8:00-8:30 am** **Continental breakfast**
- 8:30-10:30** **Evaluating pharmacoeconomic studies**
- Discuss key issues that should be considered when evaluating pharmacoeconomic literature
 - Critically evaluate a pharmacoeconomic study to identify strengths and weaknesses in study methodology and conclusions
 - Replicate the study findings in a decision tree
- ACPE Program Number: 0003-0000-17-057-L01-P (2 hours, application-based activity)**
- 10:30-10:45** **Break**
- 10:45-12:15 pm** **Post-test/Application of pharmacoeconomic data in the “real world”**
- Complete post-test to identify knowledge change
 - Describe how pharmacoeconomic data is used in decision making
 - Discuss limitations associated with applying pharmacoeconomic data in decision making
- ACPE Program Number: 0003-0000-17-058-L01-P (1.5 hours, knowledge-based activity)**
- 12:15-2:00** **Applying concepts/Pharmacoeconomic study presentations**
(with working lunch)
- Identify and discuss results of pre and post test questions to determine change in knowledge
 - Present pharmacoeconomic studies and discuss with faculty and participants the project, considerations, methodologies utilized, and results
 - Evaluate strengths and weaknesses of study designs
- ACPE Program Number: 0003-0000-17-059-L01-P (1.5 hours, application-based activity)**
- 2:00** **Close of program**

Comment from past program participant:

“Thank you for organizing this very valuable course. I would certainly recommend it to other professionals in the field. Tucson is a great place to visit!”

“Great course – would recommend to peers. Excellent presentations and good topics relevant to my job. Now have a better understanding of the various tools used in assessing value.”



The University of Arizona College of Pharmacy Training Program Faculty

Ivo Abraham, PhD, RN

Professor of Pharmacy and Medicine

Sandipan Bhattacharjee, PhD, MS

Assistant Professor

Brian L. Erstad, PharmD, MCCM, FASHP, FCCP, BCPS

Professor and Head, Department of Pharmacy Practice and Science

Amy Grizzle, PharmD

Assistant Director, Center for Health Outcomes and PharmacoEconomic Research

Jason Hurwitz, PhD

Research Scientist

Robert Lipsy, PharmD, BCPS, FASHP

Chief Clinical Staff, Medication Management Center

Assistant Professor

Weihuan Jenny Lo-Ciganic, PhD, MS, MSPharm

Assistant Professor

Daniel C. Malone, RPh, PhD, FAMCP

Professor

Terry Urbine, PhD

Associate Research Scientist, Instructor

Terri L. Warholak, PhD, RPh, FAPhA

Associate Professor

Guest Faculty

Stacie Hudgens

Managing Partner

Strategic Lead

Clinical Outcomes Solutions

Kristin M. Khalaf, PharmD, PhD

AmerisourceBergen

Assistant Director, Global Health Economics & Outcomes Research

Xcenda

Marcus Sredzinski, PharmD

Executive Vice President

PBM Services & Health Informatics

MedImpact/ScriptSave

Clinical pharmacist representing Banner Health

Clinical Pharmacy Program

Banner Pharmacy Services



Location

The program will be held at the Tucson University Park Hotel, 880 East Second Street, Tucson, Arizona 85719; While in Tucson for the week, enjoy a full-service hotel setting coupled with a university campus experience. The hotel is located at the Main Gate to the University of Arizona affording close proximity to campus cultural venues as well as easy access to the University of Arizona Health Sciences. Also within walking distance are restaurants, museums, and shopping. The hotel offers a staffed business center, fitness center and sauna, outdoor pool and spa, lounge, and restaurant.

A special group rate of \$145.00 per night plus applicable taxes is available for your stay during the training program. To make your reservation, please call (520) 629-2819.

Please note that rooms will only be held until August 24, 2017, or until the block is filled. After this date rooms will be on a space-available basis. If you have any questions or require any assistance with arranging your accommodations, please do not hesitate to contact the Office of Continuing Education at (520) 626-3020.



Registration

Please complete the enclosed registration form and return it with your payment, or use the online registration process at <https://events.pharmacy.arizona.edu/healthoutcomes>

The registration fee for the Training Program in Health Outcomes and Pharmacoeconomic Research is \$2,750 and includes all sessions, training materials, daily breakfast, lunch, breaks, one group dinner, pharmacy continuing education credit, and a certificate of completion.

REFUND POLICY: A refund (less \$450 cancellation fee) will be available for cancellations received in writing by September 1, 2017.

Registration fees paid to The University of Arizona Foundation are not considered a tax-deductible gift contribution.

Persons with a disability may request a reasonable accommodation, such as sign language interpreter, by contacting the Office of Continuing Education, 520-626-3020, email: continuinged@pharmacy.arizona.edu. Requests should be made as early as possible to allow time to arrange the accommodation.

▶ ▶ ▶ For further information:

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Tucson, Arizona 85721-0202

Phone: 520-626-3020

Email: continuinged@pharmacy.arizona.edu

Web address: www.pharmacy.arizona.edu

ONLINE REGISTRATION AVAILABLE

<https://events.pharmacy.arizona.edu/healthoutcomes>

If not using the online system, please return registration form below:

REGISTRATION FORM

TRAINING PROGRAM IN
Health Outcomes and Pharmaco-economic Research
September 25-28, 2017

NAME _____

DEGREE _____ POSITION _____

AFFILIATION _____

ADDRESS _____

CITY _____ STATE _____ ZIP CODE _____

TELEPHONE _____ FAX _____

EMAIL ADDRESS _____

Registration fee: \$2,750

Please indicate method of payment:

Check made payable to the The University of Arizona Foundation

Visa Mastercard American Express

Card Number _____ Expiration Date _____

Cardholder's name as it appears on card _____

Card Billing Address: _____

**Please return
completed
registration form
and payment to:**

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Tucson, Arizona 85721-0202