Pharmacoeconomics and Outcomes Research in Asia-Pacific: Challenges, Opportunities, and Future Direction

CO-ORGANIZED BY
ISPOR Asia Consortium
ISPOR Singapore, Malaysia, and Indonesia Chapters

Program and Schedule of Events

#ISPORSingapore
ISPOR CONFERENCE APP: SEE PAGE 18
WIFI NETWORK: ISPOR_free

www.ispor.org
The International Society for Pharmacoeconomics and Outcomes Research (ISPOR) is the leading global scientific and educational organization for health economics and outcomes research (HEOR). ISPOR’s mission is to promote HEOR excellence to improve decision making for health globally.

**ISPOR Strategic Pillars**

**Scientific and Research Excellence**
ISPOR is committed to strengthening the integrity, advancement, understanding, and use of health economics and outcomes research among researchers, health technology developers and scientists, regulators, health economists, health care policy makers, payers, providers, patients, populations, and society.

**Member Engagement**
Through its worldwide membership and stakeholder groups, ISPOR has access to the ideas, knowledge, skills, and experiences that enable achievement of its mission. ISPOR offers membership benefits that are valuable and essential to members’ professional growth.

**Organizational Values**
Knowledge and skill building are at the core of the ISPOR mission. ISPOR will lead efforts to strengthen and expand capabilities in health economics and outcomes research.

**Education and Training**

**Communication and Collaboration**

**ISPOR Membership**
ISPOR has a 20+ year legacy as an unbiased organization of more than 20,000 individual and chapter members. ISPOR promotes HEOR excellence through its:

- Scientific meetings and conferences
- Peer-reviewed journals
- Educational programs
- Roundtables, councils, and collaborative alliances
- Online tools
- Scientific and health policy groups
- Regional consortia, networks, and chapters
- Dialog with payers and health care decision makers

Additional information on ISPOR and membership benefits can be found at [www.ispor.org](http://www.ispor.org).
Dear Colleagues and Friends,

On behalf of the Asia Consortium Executive Committee, I extend my most sincere welcome to all attendees of the 2016 ISPOR 7th Asia-Pacific Conference here at the Suntec Singapore Convention & Exhibition Center.

I will first take this opportunity to tell you about ISPOR and the ISPOR Asia Consortium. As a long time ISPOR member and a Consortium founding member, I have witnessed tremendous growth and success over the past years. Since its beginning in 1995, ISPOR has grown to more than 20,000 full members and chapter members, and over the past twelve years since its founding, the ISPOR Asia Consortium has grown from 13 founding members to over 860 consortium members and 2,280 Asia chapter members devoted to the development of health economics and outcomes research (HEOR) in the Asia-Pacific region. The Asia Consortium is an important component in the expansion of ISPOR globally.

Let me draw your attention to some important initiatives of the ISPOR Asia Consortium. The ISPOR Asia Consortium and its committees have been instrumental in developing many impactful regional initiatives including the biennial ISPOR Asia-Pacific Conferences, the translation of selected ISPOR knowledge products into local languages, the development and utilization of regional research, educational programs, and publications such as the scientific journal *Value in Health Regional Issues* (Asia) and the regional newsletter *News Across Asia*.

The ISPOR Asia Consortium has continued to meet the challenges of HEOR and excel despite setbacks. While Asia is facing additional challenges in using scientific evidence such as fragmented health systems and the lack of access to evidence, professional regulation, and capacity, ISPOR has played a significant role in bridging the implementation gap between knowledge and action in regional HEOR communities. Over the years, we created effective platforms that support the growth of HEOR research and other health sector transformations in the region, and the ISPOR regional members have significantly contributed to HEOR for better health outcomes. Our annual HTA Roundtable facilitates information-sharing, discussion, debate for health technology issues, and knowledge-building, while bridging the gap between HTA agencies, health care decision makers, and outcomes researchers across Asia-Pacific. Most recently, we established the ISPOR Asia Consortium Complementary and Alternative Medicines (CAM) Working Group to promote scientific investigation of CAM and evidence-based and value-based CAM practices. All these make ISPOR a strong presence across Asia-Pacific. We should all be very proud of where we are today and excited for where we are headed.

The ISPOR Asia-Pacific Conference is one of the largest international meetings of HEOR experts in the Asia-Pacific region and provides a prime educational opportunity for professionals in the region. This groundbreaking regional conference, themed *Pharmacoeconomics and Outcomes Research in Asia-Pacific: Challenges, Opportunities, and Future Direction*, and supported by 26 organizations and institutions throughout the region, allows us to exchange knowledge, thoughts, and insights on exciting developments of HEOR, and can inspire us to further improve health care. As in the past, this conference will include a diverse range of topics presented by authors from many different countries and from various sectors of health care. This brings a plurality of interests and perspectives to a single location. I hope you take advantage of this opportunity and contribute, through presentations, discussion, and interaction, to the development of new ideas and directions in HEOR.

I hope you find the conference plenary sessions, other meeting sessions, and program events educational and interesting. I would like to deeply thank those who have worked hard for the preparation and the success of this conference, including abstract reviewers, presenters, keynote speakers, all supporting organizations, event sponsors, conference committee members, and ISPOR staff.

Finally, I wish everyone a successful and fruitful conference.

Sincerely,

Isao Kamae, MD, DrPH
2016-2018 Chair, ISPOR Asia Consortium Executive Committee
Project Professor, Health Technology Assessment and Public Policy, Graduate School of Public Policy,
The University of Tokyo, Tokyo, Japan
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Dear Colleagues and Friends,

As the Co-Chairs of the ISPOR 7th Asia-Pacific Conference, it is with great pleasure and honor that we welcome and wish you both professional success at the conference and a great time in the beautiful garden city of Singapore.

We would like to extend our sincere thanks to the dedicated program review committee co-chairs and reviewers for volunteering their valuable time and expertise to review over 700 abstract submissions and select high-quality papers which will be presented at the conference.

The theme for this year’s conference, “Pharmacoeconomics and Outcomes Research in Asia-Pacific: Challenges, Opportunities, and Future Direction,” is most appropriate in setting the stage for all stakeholders to reflect on and strategize the best ways forward in providing the most cost-effective and workable solutions to some of the challenging issues faced by most health care systems. The conference program is filled with thought-provoking plenary sessions, educational symposia, forums, issue panels, workshops, research podiums, and research posters which target audiences of various levels, and cutting-edge and innovative topics. Our speakers come from a wide variety of demographic backgrounds and possess a broad range of expertise, and they will present and discuss the latest topics in Asia, including health technology assessment (HTA), health care big data, and universal health coverage (UHC). Here, we will focus on current issues and future challenges facing health care, share experiences, and exchange new ideas to find new directions in health economics and outcomes research (HEOR) and health care in Asia.

Co-organized by the Chapters of ISPOR Singapore, Malaysia, and Indonesia, this conference draws health care stakeholders from over 50 countries worldwide. This 4 day-long conference provides many short courses and other interesting, informative, and educational sessions to enhance the knowledge of HEOR studies. It is also an excellent platform for information sharing, networking, and international collaboration among global HEOR experts. As always, we extend a warm welcome to all our colleagues who pursue our collective interest and goal of improving health care in the Asia-Pacific region.

We looked forward to meeting you here in Singapore for what promises to be a most productive and enjoyable event.

With best wishes,

Wai Keung Chui, PhD
Co-Chair, ISPOR 7th Asia-Pacific Conference
Associate Professor, Department of Pharmacy, National University of Singapore, Singapore

Syed Aljunid, MD, PhD
Co-Chair, ISPOR 7th Asia-Pacific Conference
Professor, Health Economics & Public Health Medicine & Head, International Centre for Casemix and Clinical Coding, Faculty of Medicine, National University of Malaysia, Kuala Lumpur, Malaysia

Ahmad Fuad Afdhal, PhD
Co-Chair, ISPOR 7th Asia-Pacific Conference
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SeungJin Bae, PhD
Assistant Professor, Ewha Women’s University, College of Pharmacy, Seoul, South Korea
Dear Colleagues,

I am honored and privileged to have the opportunity to serve as President of ISPOR this coming year and delighted to welcome you to the 7th Asia-Pacific Conference, themed *Pharmacoeconomics and Outcomes Research in Asia-Pacific: Challenges, Opportunities, and Future Direction*.

Our new mission is: To promote health economics and outcomes research excellence to improve decision making for health globally.

In this statement, the phrase “health economics and outcomes research” emphasizes that we have moved beyond pharmacoeconomics to explicitly consider devices, diagnostics, procedures and other health sector interventions. Research and scientific excellence remains our key goal as we strive to improve decision making for health globally—in all countries and regions of the world. This goal applies not just to decisions at the technology adoption level but at all levels of decision making for health—from the physician-patient encounter to broad decisions about health systems versus other non-health priorities, such as education.

We also want to share learning and good practice and build capacity where it is needed around the world. This global aspect is critically important as we have more than 20,000 members spanning at least 120 countries. When you absorb that fact you realize that we, as an organization, are well-positioned with tremendous potential to have a positive impact on health globally, not just by sheer numbers but by the quality of our science. The medical product and decision processes that we study are based on information—about how a molecule affects the body or about how well an HTA process works—and the knowledge created is a global public good, potentially benefitting the over 7 billion people on the planet.

Built on a foundation of core organizational values, including a commitment to scientific excellence and ethical behavior, we have defined four key pillars to support our mission: scientific and research excellence, member engagement, education and training, and communication and collaboration. Continued progress in each of these areas is needed to realize our vision to be “the leading scientific and organization for health economics and outcomes research and their use in decision making to improve health.” We are a member-driven organization and leveraging our large numbers and the considerable goodwill of all of the membership will be crucial to our continued success.

Producing outstanding conferences is critical to our success. The 7th Asia Pacific Conference, produced by dozens of dedicated ISPOR members in the Asia-Pacific region continues our legacy for high-quality and relevant content and facilitates learning and exchanging of ideas. Congratulations to the Program Co-Chairs, Wai Keung Chui, Syed Aljunid, and Ahmad Fuad Afdhal, for presenting a stimulating and compelling program.

Enjoy the knowledge sharing at this important ISPOR conference, and I hope you have some time to explore the beautiful Lion City!

Lou Garrison, PhD
2016-2017 ISPOR President
ISPOR Membership

Make the most of your membership…
explore the possibilities.

ISPOR’s 20,000+ individual and regional chapter members play a critical role in the Society’s mission to promote HEOR excellence to improve decision making for health globally. Highlights of member benefits include:

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<th>Global Scientific Meetings</th>
<th>ISPOR’s world-class, scientific meetings convene leading experts in HEOR and include annual meetings in North America and Europe and biennial meetings in Asia-Pacific and Latin America.</th>
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<td>Publications</td>
<td>Members have unrestricted access to ISPOR journals, including <em>Value in Health</em>, <em>Value in Health Regional Issues</em>, and <em>Value &amp; Outcomes Spotlight</em>.</td>
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<tr>
<td>Knowledge Products and Online Tools</td>
<td>Developed by the Society’s Scientific and Health Policy Working Groups, ISPOR knowledge products include Good Practices for Outcomes Research Reports, Scientific Presentations Databases, Assessing the Evidence for Health Care Decision Makers, and more.</td>
</tr>
<tr>
<td>Contribute to the Science</td>
<td>Join the Society’s Scientific and Health Policy Working Groups that contribute to the high quality, consensus nature of ISPOR knowledge products to advance HEOR and its use in health care decisions. <strong><a href="mailto:Participate@ispor.org">Participate@ispor.org</a></strong></td>
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<tr>
<td>Educational and Training Programs</td>
<td>The Society’s HEOR short courses, webinars, distance learning programs, and training offer critical education for HEOR professionals worldwide.</td>
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<td>Networking</td>
<td>In addition to ISPOR’s global meetings and educational programs, networking and collaboration is facilitated through regional and student chapters, consortia, and regional networks. <strong><a href="mailto:RegionalChapters@ispor.org">RegionalChapters@ispor.org</a></strong></td>
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<td>Awards and Recognition</td>
<td>ISPOR’s prestigious awards for scientific achievement and leadership recognize HEOR excellence.</td>
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<td>Career Development</td>
<td>The ISPOR Career Center is the site for HEOR professionals seeking career opportunities and employers seeking to reach candidates in the HEOR field. <strong>ispor.org/careers</strong></td>
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Visit us at www.ispor.org.
ISPOR 7TH ASIA-PACIFIC CONFERENCE
3-6 SEPTEMBER 2016 • SUNTEC SINGAPORE CONVENTION & EXHIBITION CENTER, SINGAPORE

CONFERENCE AT-A-GLANCE

SATURDAY, 3 SEPTEMBER
8:00AM-12:00PM SHORT COURSE MORNING SESSION (REGISTRATION REQUIRED)
Introduction to Pharmacoeconomics/Health Economics Room 324
Introduction to Modeling Room 327
NEW! Health Care Data and Informatics Room 325
Elements of Pharmaceutical/Biotech Pricing Room 326
Introduction to Health Technology Assessment Room 323
Cost Effectiveness Analysis alongside Clinical Trials Room 300-301
12:00PM-1:00PM LUNCH (ATTENDEES ON THEIR OWN)
1:00PM-5:00PM SHORT COURSE AFTERNOON SESSION (REGISTRATION REQUIRED)
Modeling: Design and Structure of a Model Room 324
Patient-Reported Outcomes Measures (PROMs): Cross-Cultural Development and Validation Room 327
Retrospective Database Design and Analysis Room 326
Meta-Analysis and Systematic Literature Review in Comparative Effectiveness Research Room 323
NEW! Case Studies in Pharmaceutical / Biotech Pricing II – Advanced Room 300-301
Case Studies in Health Technology Assessment Room 325
5:15PM-6:15PM EDUCATIONAL SYMPOSIUM Room 328-329
Value of New Direct-Acting Antivirals to Treat Hepatitis C Infection
6:30PM-7:30PM EDUCATIONAL SYMPOSIUM Room 328-329
Portfolio Management—A New Approach in Health Economics to Support Decision Makers on Vaccine Introduction at the National Level
7:45PM-8:45PM EDUCATIONAL SYMPOSIUM Room 328-329
Engaging Patients in Health Technology Assessment and Access Decisions to Improve Quality of Patient Care
9:00PM-10:30PM WELCOME RECEPTION Room 308-310

SUNDAY, 4 SEPTEMBER
8:00AM-12:00PM SHORT COURSE MORNING SESSION (REGISTRATION REQUIRED)
Statistical Considerations in Health Economic Evaluations Room 327
Health-Related Quality of Life (HRQOL) Weights for Economic Evaluations Room 324
Network Meta-Analysis and Indirect Treatment Comparisons Room 323
Budget Impact and Cost Analysis Room 326
Risk-Sharing/Performance-Based Schemes for Drugs & Medical Devices Room 325
NEW! Health Care Systems in Asia Room 300-301
12:00PM-1:00PM LUNCH (ATTENDEES ON THEIR OWN)
12:30PM-7:30PM RESEARCH POSTERS – I Nicoll 1-3
1:00PM-3:00PM WELCOME Summit 1
Welcome from ISPOR Asia Consortium Executive Committee Chair
Welcome from Conference Co-Chairs
Welcome from ISPOR President
1:30PM-1:45PM OPENING SPEECH Summit 1

1:45PM-2:15PM FIRST PLENARY Summit 1
Health Technology Assessment and Health Policy: Recent Developments across Asia
3:15PM-3:45PM BREAK, EXHIBITS & RESEARCH POSTERS – I Nicoll 1-3
3:45PM-4:45PM ISSUE PANELS – I
IP1: Setting Budget Impact Analysis Thresholds in Asia and Abroad: Is Threshold Transparency Prudent and for Whom? Summit 1
IP2: Growing Demands for HTA in Asia: How Can Public-Private-Academic Partnerships Be Strengthened? Room 300-301
IP3: Joint HTA: The Next Step for the ASEAN Economic Community? Room 325
IP4: Risky Business: Decision Making in Health Care With Economic Modelling Uncertainty Room 324
4:45PM-5:00PM BREAK, EXHIBITS & RESEARCH POSTERS – I Nicoll 1-3
5:00PM-6:00PM WORKSHOPS – I
W1: Applying Health Technology Assessment to Precision Medicine: Evaluating Novel Diagnostic Tests Room 324
W2: Evolving Methods for Staging Prospective Real-World Evidence Studies in Mature and Emerging Markets Summit 1
W3: An Introduction to the Casemix Database in Malaysia, Indonesia, and Philippines Room 300-301
W4: Combining Two Types of Valuation Data to Estimate Health State Utilities: The Hybrid Regression Model Room 326
W5: Value Proposition Development: Communicating Value in the Patients’ Language Room 325
6:00PM-7:30PM EXHIBITORS’ RECEPTION & RESEARCH POSTERS – I Nicoll 1-3
6:30PM-7:30PM RESEARCH POSTER AUTHOR DISCUSSION HOUR – I Nicoll 1-3
7:30PM-9:00PM ASIA CONSORTIUM RECEPTION Room 308-309

MONDAY, 5 SEPTEMBER
7:15AM-8:15AM EDUCATIONAL SYMPOSIUM Summit 1
Managing High-Cost Innovative Medicines in Asia: What Are the Latest Trends and Real-World Practice?
8:30AM-7:30PM RESEARCH POSTERS – II Nicoll 1-3
8:30AM-9:30AM RESEARCH PODIUMS – II Nicoll 1-3
Cancer Outcomes Studies Summit 1
Cost Utility and QALY Studies Room 325
Health Care Expenditure and Pricing Studies Room 300-301
Infectious Disease Studies Room 324
Research on Methods Studies Room 326
2:45PM-10:45AM RESEARCH PODIUMS – II
Cost-Effectiveness Studies Room 325
Cardiovascular Outcomes Studies Summit 1
Diabetes Outcomes Studies Room 300-301
Disease Management Studies Room 324
Health Technology Assessment Studies Room 326
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<td>10:45AM-12:00PM</td>
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# ISPOR Invitational Meetings

*Please note that these meetings are by prior invitation only.*

The following is a list of the by invitation only ISPOR group meetings during ISPOR Singapore. ISPOR members worldwide are actively participating in ISPOR working groups to advance global health outcomes research and the use of this research in health care decisions. These ISPOR groups provide an opportunity for members to contribute to translating outcomes research to health care decisions.

## Saturday, 3 September

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<tbody>
<tr>
<td>1:00PM-5:00PM</td>
<td>Educational Forum: Equity in Cancer Care: Looking Beyond Incremental Cost-Effectiveness Ratios (ICERs) <em>(supported by an educational grant from Roche Pharmaceuticals)</em></td>
<td>Room 303-304</td>
</tr>
<tr>
<td>2:00PM-6:00PM</td>
<td>Educational Forum: Diabetes Pharmacy Workshop <em>(supported by an educational grant from Novo Nordisk)</em></td>
<td>Room 308</td>
</tr>
<tr>
<td>6:00PM-9:00PM</td>
<td>ISPOR HTA Asia-Pacific Roundtable</td>
<td>Room 330</td>
</tr>
</tbody>
</table>

## Sunday, 4 September

<table>
<thead>
<tr>
<th>Time</th>
<th>Meeting</th>
<th>Room</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00AM-12:30PM</td>
<td>ISPOR HTA Asia-Pacific Roundtable</td>
<td>Room 330</td>
</tr>
<tr>
<td>3:45PM-4:45PM</td>
<td>ISPOR Chinese Chapters Joint Meeting</td>
<td>Room 323</td>
</tr>
<tr>
<td>3:45PM-4:45PM</td>
<td>ISPOR Malaysia Chapter</td>
<td>Room 321-322</td>
</tr>
<tr>
<td>5:00PM-6:00PM</td>
<td>ISPOR HealthNet India/Indian Chapters</td>
<td>Room 323</td>
</tr>
<tr>
<td>5:00PM-6:00PM</td>
<td>ISPOR Australia/New Zealand Joint Chapter Meeting</td>
<td>Room 321-322</td>
</tr>
</tbody>
</table>

## Monday, 5 September

<table>
<thead>
<tr>
<th>Time</th>
<th>Meeting</th>
<th>Room</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:30AM-9:30AM</td>
<td>ISPOR Asia Consortium and ViHRI Asia Leadership</td>
<td>Room 323</td>
</tr>
<tr>
<td>9:45AM-10:45AM</td>
<td>ISPOR Code of Ethics</td>
<td>Room 323</td>
</tr>
<tr>
<td>9:45AM-10:45AM</td>
<td>ISPOR Asia Consortium Industry Committee</td>
<td>Room 321-322</td>
</tr>
<tr>
<td>12:00PM-4:00PM</td>
<td>Educational Forum: Policy Options for Formulary Development in Asia-Pacific <em>(supported by an educational grant from PhRMA)</em></td>
<td>Room 321-322</td>
</tr>
<tr>
<td>2:15PM-3:15PM</td>
<td>ISPOR Central Asia Chapters Meeting</td>
<td>Room 323</td>
</tr>
<tr>
<td>3:00PM-7:00PM</td>
<td>Educational Forum: Role of Real World Studies in Asia-Pacific <em>(supported by an educational grant from Kantar Health/Boehringer Ingelheim)</em></td>
<td>Room 303</td>
</tr>
<tr>
<td>3:45PM-4:45PM</td>
<td>ISPOR Korea Chapter</td>
<td>Room 323</td>
</tr>
<tr>
<td>5:00PM-6:00PM</td>
<td>ISPOR Japan Chapter</td>
<td>Room 323</td>
</tr>
<tr>
<td>7:00PM-8:30PM</td>
<td>ISPOR 7th Asia-Pacific Conference Program Committee Co-Chairs</td>
<td>Aquamarine</td>
</tr>
</tbody>
</table>

## Tuesday, 6 September

<table>
<thead>
<tr>
<th>Time</th>
<th>Meeting</th>
<th>Room</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:45AM-10:45AM</td>
<td>ISPOR Asian Consortium Education and Publication Committees</td>
<td>Room 321-322</td>
</tr>
<tr>
<td>9:45AM-10:45AM</td>
<td>ISPOR Asian Consortium Young Professionals Group Career Development Advisory</td>
<td>Room 323</td>
</tr>
<tr>
<td>1:00PM-5:00PM</td>
<td>Educational Forum: Evidence-based Health Technology Assessment Specifically for Off-Patent Pharmaceuticals in Emerging Markets <em>(supported by an educational grant from Abbott)</em></td>
<td>Room 321-322</td>
</tr>
</tbody>
</table>
CONFFERENCE OBJECTIVES
Participants will be able to:
• Learn new health economics and outcomes research methods and techniques;
• Improve the quality of decision making through better utilization of health economics and outcomes research studies; and
• Learn how to assess and select the appropriate quality-of-life measurement instruments.

LANGUAGE INFORMATION
All sessions at the 7th Asia-Pacific Conference are presented in English. ISPOR regrets that due to the disruption to other delegates, whisper translation (chuchotage) is not permitted in any session, including short courses. To discuss options to meet educational needs in multiple languages, please contact meetingsinfo@ispor.org.

NAME BADGES & REGISTRATION MATERIALS
ISPOR now offers self-serve check-in and name badge printing. Printing stations will be set up in Room 312 on Level 3 where delegates can scan the bar code from their email confirmation, or enter their email address or registration ID to print their name badge.

The following tickets will also print with your name badge:
• Short Course ticket for each Short Course for which you registered (you MUST bring your Short Course ticket to the room to collect your materials and be admitted);
• One complimentary drink ticket to the Exhibitors’ Reception: Sunday, 4 September from 6:00PM-7:30PM;
• One complimentary drink ticket to the Exhibitors’ Reception: Monday, 5 September from 6:00PM-7:30PM;

Registration bags and the Program & Schedule of Events are available for pick-up near ISPOR registration.

CONFERENCE REGISTRATION/SESSIONS
Separate registration is required for all Short Courses (Saturday, 3 September and Sunday, 4 September).

Conference registration is inclusive of symposia and the Welcome Reception on Saturday, 3 September and all conference sessions Sunday-Tuesday, no pre-registration is required.

A schedule of ISPOR Group meetings and Educational Forums, which are by invitation only, is provided on page 11 of the Program & Schedule of Events, as well as in the conference mobile app and on the ISPOR website.

ISPOR REGISTRATION HELP DESK HOURS
ISPOR Registration is located in Room 312 on Level 3.

• Saturday, 3 September: 7:00AM-6:00PM
• Sunday, 4 September: 7:00AM-6:00PM
• Monday, 5 September: 7:00AM-6:00PM
• Tuesday, 6 September: 7:00AM-5:00PM

EXHIBIT HALL HOURS
Exhibits are located in Nicoll 1-3 on Level 3.
• Sunday, 4 September: 12:30PM-7:30PM
• Monday, 5 September: 8:30AM-7:30PM
• Tuesday, 6 September: 8:30AM-4:00PM

ISPOR CONFERENCE APP
Access the mobile app on your smartphone or use the myISPORSingapore website (https://myisporsingapore.zerista.com/) on your computer or tablet. Both options allow users to:
• Update your “electronic business card” (personal profile);
• Create a personalized conference schedule;
• Search the conference program by scientific topic, keyword, or speaker;
• Connect with other attendees by sending messages (while keeping your email address private); and
• Find exhibitors and sponsors to connect with by viewing their virtual booths.

Search for “ISPOR 2016 Meetings” in the App Store or on Google Play!
The ISPOR 2016 Meetings app is compatible with Apple and Android devices and is available for download on the App Store and Google Play. See page 18 for more information.

WIFI & INTERNET ACCESS
Internet stations are provided in the Exhibit-Poster Hall located in Nicoll 1-3 on Level 3.

For the convenience of conference attendees, Wi-Fi is available in the convention center using the “ISPOR_free” network (no password). Once the WiFi network is selected you might need to open an internet browser and click “continue” on the welcome banner to complete the WiFi connection.

Wi-Fi is only intended for checking email and using the conference mobile app, not for downloading files. Connection speeds will vary depending on the volume of users.

RESEARCH PODIUM & POSTER ABSTRACTS
Abstracts for all podium and poster research presentations given at the ISPOR 7th Asia-Pacific Conference will be published in the November 2016 issue of Value in Health (Volume 19, Issue 7). This issue of Value in Health Volume will be available to ISPOR members and 7th Asia-Pacific Conference registrants online in October 2016 at: http://www.ispor.org/valueinhealth_index.asp.

Abstracts are also currently available for viewing in the conference mobile app and on the ISPOR website, http://www.ispor.org/Event/Index/2016Singapore.
FINANCIAL DISCLOSURE INFORMATION

Research podium and poster presentation financial disclosure information is available online at: http://www.ispor.org/valueinhealth_index.asp and in the November 2016 issue of Value in Health. Faculty and staff involved in the planning or presentation of this conference are required to disclose all real or apparent commercial financial affiliations related to conference content. This information is available on request at the ISPOR Registration desk.

PRESENTATION SLIDES/POSTERS

Conference plenary session, issue panel, workshop, ISPOR forum, and symposia slides will be available via the conference app and at the 7th Asia-Pacific Conference Released Presentations page at www.ispor.org during/after the conference, subject to speaker approval. Podium and poster presentation abstracts and released slides or poster PDFs are available at the ISPOR Scientific Presentations Database (a searchable database of nearly 36,500 research papers presented at ISPOR conferences) at http://www.ispor.org/research_study_digest/index.asp.

HANDOUTS

• Plenary Sessions: Handouts for the plenary sessions are available in the session room at the time of the presentations.
• Research Presentations, Workshops & Issue Panels: Handouts for research (podiums and posters), workshops, and issue panels are the sole responsibility of the presenting author(s).
• ISPOR Forums: Handouts for ISPOR Forums are available in the session room at the time of the presentations.
• Educational Symposia: Handouts for symposia are the sole responsibility of the host organization.
• All Remaining handouts will be made available at the handout table near ISPOR Registration (Room 312 on Level 3).

The Released Presentations page will feature many of the conference’s slide presentations as PDFs. In 2014, more than 80% of the presentations were available to the public during/after the conference. The Released Presentations page is accessible via the conference mobile app and at www.ispor.org » 7th Asia-Pacific Conference.

ABSTRACT SUBMISSION HISTORICAL INFORMATION

During the ISPOR 7th Asia-Pacific Conference, 595 posters, 40 research podiums, 15 workshops, and 15 issue panels will be presented.

<table>
<thead>
<tr>
<th>Year</th>
<th>Research</th>
<th>Workshop</th>
<th>Issue Panel</th>
<th>Total</th>
<th>Not Accepted (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>280</td>
<td>14</td>
<td>4</td>
<td>298</td>
<td>13.7%</td>
</tr>
<tr>
<td>2010</td>
<td>381</td>
<td>17</td>
<td>9</td>
<td>413</td>
<td>5.8%</td>
</tr>
<tr>
<td>2012</td>
<td>478</td>
<td>27</td>
<td>11</td>
<td>520</td>
<td>8.1%</td>
</tr>
<tr>
<td>2014</td>
<td>603</td>
<td>30</td>
<td>16</td>
<td>649</td>
<td>6.9%</td>
</tr>
<tr>
<td>2016</td>
<td>702</td>
<td>20</td>
<td>29</td>
<td>751</td>
<td>9.5%</td>
</tr>
</tbody>
</table>

SPEAKER INFORMATION

Upload the final version of your slide presentation in the Speaker Ready Room on the same day of your session! All speakers are encouraged to use the Speaker Ready Room to preview their slide presentation and/or upload an updated version. Presentations submitted to ISPOR Speaker’s Corner by the specified advance deadline and all presentations uploaded/updated in the Speaker Ready Room 30 minutes prior to the session will be pre-loaded to the computer in the session room. All speakers are requested to arrive at their presentation room 15 minutes prior to the session start time. ISPOR staff will be available in the session room to assist the presenter.

A speaker ready room is provided in Room 305 on Level 3 with the following opening hours:
• Sunday, 4 September: 12:00PM-6:00PM
• Monday, 5 September: 8:00AM-6:00PM
• Tuesday, 6 September: 8:00AM-4:00PM

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RESEARCH POSTER PRESENTATIONS

Poster presentations will be on view in Nicoll 1-3 on Level 3. The poster hall is organized in rows (A-T) and each poster board is numbered accordingly (e.g. A1, J10). Poster presentation titles and authors, as well as the numbered board location, are available on the https://myisporsingapore.zerista.com/ web platform and ISPOR Singapore mobile app. This information is also available as a PDF on the ISPOR website and as a handout at the Poster Help Desk (please note quantities are limited). Each poster presentation has been assigned a specific numbered board location, which is shown next to the presentation title. Please note this is different than the poster code (based on the abstract’s scientific topic), which was assigned to each poster presentation upon acceptance. Poster board numbering is shown on the floor plan on page 47 in the Program & Schedule of Events, as well as on the website and mobile app.

*Presenters are required to be at their posters during the Poster Author Discussion Hour.

**Posters that are not removed at the scheduled dismantle times will be discarded.
ISPOR RESEARCH PRESENTATION AWARDS

Awards are given for the best research presentations for podium presentations (up to 6) and for poster presentations (up to 6).

All research podium presentations are considered for an award. Research poster presentations in the top 10%, based on abstract review scores, are considered for a poster presentation award. These are identified with a rosette and will be judged during the conference.

ISPOR 7th Asia-Pacific Conference Research Presentation Awards will be presented immediately after the Third Plenary Session on Tuesday, 6 September at 12:45PM.

SOCIAL MEDIA

Communicating by way of social media is encouraged if it falls within embargo and communications rules.

Be part of the live discussion!

• Tweet your comments to @ISPORorg during the conference using #ISPORSingapore
• Access expert insights and share your views on conference sessions at the ISPOR LinkedIn Discussion Group: http://bit.ly/ISPOR-LIn
• Network with your peers on the ISPOR Facebook page: http://bit.ly/ISPOR-FB

RECORDING & PRESS INFORMATION

ISPOR supports the promotion of research presented at ISPOR conferences, while safeguarding sensitive information, data, and research findings that are not yet available to the public.

Due to the sensitive nature of data and the particularly preliminary, unpublished research findings, all filming and recording of scientific sessions and the poster hall is prohibited during the conference, without the express written consent of ISPOR.

Portions of the ISPOR 7th Asia-Pacific Conference may be recorded by the International Society for Pharmacoeconomics and Outcomes Research (ISPOR). By participating in the discussions, conference registrants agree that ISPOR may electronically copy, videotape, or audiotape their attendance at and involvement in any program. Registration and attendance at the ISPOR 7th Asia-Pacific Conference constitutes an agreement by the registrant to ISPOR's use and distribution (both now and in the future) of their image or voice in photographs, videotapes, electronic reproductions, and audiotapes of such events and activities.

ISPOR will strictly enforce its rights as the exclusive licensee of all publication and reproduction rights to each presentation, and no presentation, in whole or in part, may be reproduced without approval from ISPOR.

Conference attendees must gain approval from a speaker or poster presenter prior to quoting or publishing that individual's scientific results. Members of the press must identify themselves as such before questioning speakers and conference attendees if using the information in a professional capacity.

More detailed information on ISPOR’s Press Pass, Legal, and Embargo Policies are available on ISPOR’s News & Press page at the ISPOR website (www.ispor.org).

For further questions on these policies, please contact: Betsy Lane (blane@ispor.org), Director and Chief Marketing & Communications Officer.

CONFERENCE PROGRAM DISCLAIMER

Please be advised that while the conference program is designed to provide accurate information regarding the subject matter covered, the views, opinions, and recommendations expressed are those of the authors and speakers, not the International Society for Pharmacoeconomics and Outcomes Research (ISPOR), and thus ISPOR does not guarantee the accuracy of the information disseminated. If professional advice is desired, please consult a competent professional.

ANTITRUST COMPLIANCE

It is the undeviating policy of ISPOR to comply strictly with the letter and spirit of all local and U.S. Federal, State, and applicable international trade regulations and antitrust laws. Any activities of ISPOR or ISPOR-related actions of its officers, Executive Committee Members, or members that violate these regulations and laws are detrimental to the interests of ISPOR and are unequivocally contrary to ISPOR policy.

QUESTIONS & INFORMATION

Please ask ISPOR staff members for any additional information about the conference or about ISPOR. ISPOR staff can be identified by their black shirts with ISPOR logo.
CONFERENCES SUPPORTING INSTITUTIONS

- Aga Khan University (Pakistan)
- Centre for Applied Health Economics, Griffith University (Australia)
- Center for Socio-Economic Studies in Pharmacy (Indonesia)
- China Center for Health Economic Research of Peking University (CCHER)
- China Society for Pharmacoconomics and Outcomes Research (CSPOR)
- Chinese University of Hong Kong School of Pharmacy (China)
- Fudan University Center for Pharmacoconomic Research and Evaluation (China)
- Gulf Medical University (UAE)
- Institute of Health Management Research University (India)
- International University of Health and Welfare (Japan)
- Jaipur College of Pharmacy (India)
- Jinan University Pharmaceutical Economics and Health Technology Assessment Research Center (China)
- Kazakh Agency for Health Technology Assessment (Kazakhstan)
- Manipal University College of Pharmaceutical Sciences (India)
- Monash University Malaysia School of Pharmacy (Malaysia)
- National University of Singapore Saw Swee Hock School of Public Health
- Nirmala College of Pharmacy (India)
- Raghavendra Institute of Pharmaceutical Education & Research (India)
- Seoul National University Institute of Health and Environment (South Korea)
- Shenyang Pharmaceutical University (China)
- Singapore Exhibition & Convention Bureau (SECB), A Group of Singapore Tourism Board (STB)
- St Peter’s Institute of Pharmaceutical Sciences (India)
- Taiwan Society for Pharmacoconomics and Outcome Research
- University of Delhi, Delhi Institute of Pharmaceutical Sciences and Research (India)
- University of Medicine and Pharmacy (Viet Nam)
- ISPOR Regional Chapters in China, India, Indonesia, Mongolia, New Zealand, Australia, South Korea, and the Philippines

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3-6 September 2016 • Suntec Singapore Convention & Exhibition Center, Singapore

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ISPOR 2016 Meetings

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ISPOR 7th ASIA-PACIFIC CONFERENCE

3-6 SEPTEMBER 2016
SUNTEC SINGAPORE CONVENTION
& EXHIBITION CENTER
SINGAPORE

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- Cost Effectiveness Analysis alongside Clinical Trials  
  page 22  
- Budget Impact and Cost Analysis  
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- Modeling: Design and Structure of a Model  
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### Observational Data Methods
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- Retrospective Database Design and Analysis  
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### Outcomes Research Methods
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- Network Meta-Analysis and Indirect Treatment Comparisons  
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- Health-Related Quality of Life (HRQOL) Weights for Economic Evaluations  
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- **NEW!** Case Studies in Pharmaceutical/Biotech Pricing II – Advanced  
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- Statistical Considerations in Health Economic Evaluations  
  page 24  
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  page 26

*Select courses require use of your personal laptop.*
SHORT COURSE PROGRAM

SATURDAY, 3 SEPTEMBER
MORNING COURSES 8:00AM-12:00PM

INTRODUCTION TO PHARMACOECONOMICS/HEALTH ECONOMICS Room 324

TRACK: Economic Methods
LEVEL: Introductory. This course is suitable for those with little or no experience with pharmacoeconomics.

FACULTY: David B. Matchar, MD, Professor & Director, Program for Health Services & Systems Research, Duke-NUS Graduate Medical School, Singapore; Hong Li, PhD, MPH, Adjunct Professor, School of Public Health, Shanghai Jiaotong University, Shanghai, China and Adjunct Associate Professor, School of Pharmacy, Cincinnati University, Cincinnati, OH, USA

COURSE DESCRIPTION: This course is designed to teach clinicians and researchers the basics of pharmacoeconomic (health economic) analysis in health care. This course will include the basic theory for determining cost and outcomes, the different types of costs and costing methods. Analysis methods to be discussed include cost-minimization, cost-benefit analysis, cost-utility (cost per QALY), cost-effectiveness, and incremental cost-effectiveness ratios (ICERS). The course will also highlight how analyses are framed, evaluated, and reported. Finally, the course will outline challenges and considerations when utilizing pharmacoeconomics as a tool for developing clinical guidelines for health care systems. Applications of pharmacoeconomics/health economics in Asia will also be discussed.

INTRODUCTION TO MODELING Room 327

TRACK: Modeling Methods
LEVEL: Introductory.

FACULTY: Shu Chuen Li, MAppSc, MBA, PhD, Chair Professor of Pharmacy & Head of Pharmacy and Experimental Pharmacology, University of Newcastle, Callaghan, NSW, Australia; Jipan Xie, MD, PhD, Vice President, Analysis Group, Inc., New York, NY, USA

COURSE DESCRIPTION: This course will introduce modeling techniques such as decision analytic modeling, Markov modeling, discrete event models, and other modeling techniques and their appropriate usages, including a review of the ISPOR Modeling Good Research Practices. Examples will be presented using Microsoft Excel, with add-on simulation software. This course will include practical steps in the selection of models and options in modeling of data inputs.

NEW! HEALTH CARE DATA AND INFORMATICS Room 325

TRACK: Observational Data Methods
LEVEL: Introductory. This course is designed for those with little experience with data analysis or observation.

FACULTY: Jeff J. Guo, PhD, Professor, University of Cincinnati, Cincinnati, USA; Kinwei Arnold Chan, MD, MPH, ScD, Deputy Director, Department of Medical Research, Director, Health Data Research Center, Director, Clinical Trial Center, National Taiwan University Hospital, and Professor, College of Medicine, National Taiwan University, Taipei, Taiwan

COURSE DESCRIPTION: This course will discuss issues surrounding health care data and health informatics in Asia, including established data sources such as patient registries and clinical data warehouses, methodologies surrounding data collection and sharing across health systems, data management through established health information systems, electronic health records, and data utilization (analytics), as well as issues of clinical and economic data transferability across jurisdictions. Emerging trends in big data and their future role in Asia will also be introduced.

ELEMENTS OF PHARMACEUTICAL/BIOTECH PRICING Room 326

TRACK: Use of Pharmacoeconomic / Economic / Outcomes Research Information
LEVEL: Introductory. This introductory course is designed for those with limited experience in pharmaceutical pricing and reimbursement.

FACULTY: Jack M. Mycka, Global President & CEO, Medical Marketing Economics LLC (MME), Montclair, USA; Shanlian Hu, MS, MD, Senior Consultant, Shanghai Health Development Research Center, Shanghai, China; Manny Papadimitropoulos, MScPhm, PhD, Health Outcomes Scientific Leader, Latin America, Eli Lilly, and Adjunct Assistant Professor, University of Toronto, Toronto, ON, Canada
COURSE DESCRIPTION: This course will give participants a basic understanding of the key terminology and issues involved in pricing decisions and the principles of market access. It covers the tools to document product value, the role of pharmacoeconomics, and the differences in payment systems that help pricing decisions. Recent pharmaceutical spending patterns, trends, and cost-containment measures will also be discussed, taking into account the wider policy context. The health systems approach in several countries will be presented.

INTRODUCTION TO HEALTH TECHNOLOGY ASSESSMENT

ROOM: 323

TRACK: Use of Pharmacoeconomic / Economic / Outcomes Research Information

LEVEL: Introductory. This course is suitable for those with little or no experience with health technology assessment (HTA).

FACULTY: Uwe Siebert, MD, MPH, MSc, ScD, Professor, Department of Public Health, Health Services Research & HTA/ONCOTYROL, Department of Health Policy & Management, Harvard Medical School, Institute for Technology Assessment & Department of Radiology, Hall i.T., Austria; Yen-Huei (Tony) Tarn, PhD, MS, Associate Professor, Kaohsiung Medical University, Kaohsiung, Taiwan

COURSE DESCRIPTION: This course will teach participants about the key principles, elements, methods, and language of health technology assessment (HTA), and provide an overview of basic HTA disciplines, including benefit assessment (biostatistics, clinical epidemiology, patient-relevant outcomes, risk-benefit assessment), economic evaluation (costing, cost-effectiveness analysis, pharmacoeconomic modeling, budget impact analysis, resource allocation), and ELSI (ethical, legal, and social implications). Participants will also learn to be prepared for discussions between different stakeholders regarding the implementation of HTA in decision making.

COST EFFECTIVENESS ANALYSIS ALONGSIDE CLINICAL TRIALS

ROOM: 300-301

TRACK: Economic Methods

LEVEL: Intermediate. Familiarity with economic evaluations will be helpful.

FACULTY: Chee-Jen Chang, PhD, Director & Professor, Chang Gung University, Taoyuan, Taiwan; David Bin-Chia Wu, PhD, Professor of Health Economics, Monash University Malaysia, Selangor, Malaysia

COURSE DESCRIPTION: The growing number of prospective clinical/economic trials reflects both widespread interest in economic information for new technologies and the regulatory and reimbursement requirements of many countries that now consider evidence of economic value along with clinical efficacy. This course will present the design, conduct, and reporting of cost-effectiveness analyses alongside clinical trials based on, in part, the Good Research Practices for Cost-Effectiveness Analysis alongside Clinical Trials: The ISPOR RCT-CEA Task Force Report. Trial design, selecting data elements (measures of cost and outcomes), database design and management, analysis, and reporting of results will be presented. Trials designed to evaluate effectiveness (rather than efficacy) as well as clinical outcome measures will be discussed. How to obtain health resource use and health state utilities directly from study subjects and economic data collection fully integrated into the study will also be discussed. Analyses guided by an analysis plan and hypotheses, an incremental analysis using an intention to treat approach, characterization of uncertainty, and standards for reporting results will be presented. Various case studies will be employed to guide participants through the elements listed above.

MODELING: DESIGN AND STRUCTURE OF A MODEL

ROOM: 324

TRACK: Modeling Methods

LEVEL: Intermediate. This intermediate course requires basic understanding of decision analysis.

PREREQUISITE: Introduction to Modeling

FACULTY: Mark S. Roberts, MD, MPP, Professor & Chair, University of Pittsburgh Graduate School of Public Health, Pittsburgh, PA, USA; Sun-Young Kim, PhD, Assistant Professor, Seoul National University Graduate School of Public Health, Seoul, South Korea

COURSE DESCRIPTION: This course will provide an intermediate level introduction to modeling techniques such as Monte Carlo analysis, Markov modeling, discrete event models, and other techniques and their appropriate use as described in the ISPOR Principles of Good Practice for Decision Analytic Modeling in Health Care Evaluations. The steps involved with model structure, data inputs (data identification, data modeling, and data incorporation); and data validation (internal, between-models, external, and prediction) will be discussed.
PATIENT-REPORTED OUTCOMES MEASURES (PROMS): CROSS-CULTURAL DEVELOPMENT AND VALIDATION  
**Room 327**

**TRACK:** Patient-Reported Outcomes Methods  
**LEVEL:** Introductory. *This course is designed for those with limited experience with quality of life/patient-reported outcomes studies.*

**FACULTY:** Bruce Crawford, MA, MPH, Senior Principal, Real World Evidence Solutions, IMS Japan KK, Minato-ku, Tokyo, Japan; Hwee Lin Wee, PhD, Assistant Professor, National University of Singapore, Singapore

**COURSE DESCRIPTION:** This course will introduce the definitions and concepts, methodologies, and practical methods for measuring patient-reported outcomes. The value of patient-reported outcomes assessment will be discussed. A strategy to aid in selecting appropriate instruments and the translation processes will be presented with considerations for regional needs. Instrument development and validation will be discussed using practical examples and exercises, including ISPOR Principles of Good Practice for the Translation and Cultural Adaptation Process for Patient-Reported Outcomes (PRO) Measures.

RETROSPECTIVE DATABASE DESIGN AND ANALYSIS  
**Room 326**

**TRACK:** Observational Data Methods  
**LEVEL:** Introductory. *This course is designed for those with little experience with database analysis.*

**FACULTY:** Jeff J. Guo, PhD, Professor, University of Cincinnati, Cincinnati, OH, USA; Xin Sun, PhD, Professor, West China Hospital of Sichuan University, Chengdu, China

**COURSE DESCRIPTION:** Retrospective studies require strong principles of epidemiologic study design and complex analytical methods to adjust for bias and confounding. This course will provide an overview of fundamental design strategies, analytic techniques, and specific best practices to improve causal inference in studies using retrospective databases. Specific topics to be covered at an introductory level include: measurement of exposure and outcome, causal graphs, new user study design, measures of comorbidity, the use of stratification analysis before multivariable modeling, multivariable regression including Cox proportional hazards survival analysis, model performance and diagnostic testing, propensity scoring, instrumental variable and structural modeling techniques, including marginal structural models.

META-ANALYSIS AND SYSTEMATIC LITERATURE REVIEW IN COMPARATIVE EFFECTIVENESS RESEARCH  
**Room 323**

**TRACK:** Outcomes Research Methods  
**LEVEL:** Intermediate. *This course requires basic understanding of statistical method and is recommended as a prerequisite to the ISPOR short course, “Network Meta-Analysis and Indirect Treatment Comparisons.”*

**FACULTY:** Nathorn Chaiyakunapruk, PhD, PharmD, Professor, Monash University Malaysia, Petaling Jaya, Malaysia; Peter Feng Wang, PhD, Director, Bristol-Myers Squibb, Princeton, NJ, USA

**COURSE DESCRIPTION:** Comparative effectiveness research is a rigorous evaluation of the impact of different options that are available for treating a given medical condition for a particular set of patients. Its purpose is to assist consumers, clinicians, purchasers, and policy makers to make informed decisions that will improve health care at both individual and population levels. As a central part of comparative effectiveness research and reviews, meta-analysis may be defined as the statistical analysis of data from multiple studies for the purpose of synthesizing and summarizing results, as well as for quantitatively evaluating sources of heterogeneity and bias. A systematic literature review often includes meta-analysis and involves an explicit, detailed description of how a review was conducted. This course highlights and expounds upon six key areas: 1) comparative effectiveness research; 2) impetus for meta-analysis and systematic reviews; 3) basic steps to perform a quantitative systematic review; 4) statistical methods of combining data; 5) reporting of results; and 6) appraisal and use of meta-analytic reports. The material includes practical examples from the published literature relevant to pharmacoeconomic and outcomes research. This course is designed for those with little experience with meta-analysis and includes interactive exercises.
NEW! CASE STUDIES IN PHARMACEUTICAL/BIOTECH PRICING II – ADVANCED
Room 300-301

TRACK: Use of Pharmacoeconomic/Economic/Outcomes Research Information

LEVEL: Intermediate. This course is designed for those with limited experience in the area of pharmaceutical pricing and covers topics within a global context.

PREREQUISITE: Previous attendance at the ISPOR short course, “Elements of Pharmaceutical/Biotech Pricing,” or equivalent knowledge, is recommended.

FACULTY: Jack M. Mycka, Global President & CEO, Medical Marketing Economics LLC (MME), Montclair, NJ, USA; Shanlian Hu, MS, MD, Senior Consultant, Shanghai Health Development Research Center, Shanghai, China; Manny Papadimitropoulos, MScPhm, PhD, Health Outcomes Scientific Leader, Latin America, Eli Lilly and Adjunct Assistant Professor, University of Toronto, Toronto, ON, Canada

COURSE DESCRIPTION: Case studies will be employed to lead participants through the key steps of new product pricing, with focus on the need to thoroughly analyze the business environment and its constraints and opportunities, and the need to closely integrate the pricing, reimbursement, and pharmacoeconomic strategy for the new product with the clinical development and marketing strategies. Practical exercises will allow participants to consolidate the concepts delivered in the “Elements” introductory session and expanded here. Areas covered will include the post-launch issues of reimbursement and pricing maintenance as a part of life-cycle management in a global environment.

CASE STUDIES IN HEALTH TECHNOLOGY ASSESSMENT Room 325

TRACK: Use of Pharmacoeconomic / Economic / Outcomes Research Information

LEVEL: Intermediate.

PREREQUISITE: Previous attendance at the ISPOR short course, “Elements of Pharmaceutical/Biotech Pricing,” or equivalent knowledge, is recommended.

FACULTY: Uwe Siebert, MD, MPH, MSc, ScD, Professor, Department of Public Health, Health Services Research & HTA/ONCOTYROL, Department of Health Policy & Management, Harvard Medical School, Institute for Technology Assessment & Department of Radiology, Hall i.T., Austria; Kun Zhao, MD, PhD, Professor & Director, China National Health Development, Research Center, National Health and Family Planning Commission (NHFPC), Beijing, China; Jasmine Pwu, PhD, MS, Senior Investigator, Health Data Research Center, National Taiwan University, Taipei, Taiwan

COURSE DESCRIPTION: This course will provide a hands-on approach to health technology assessment (HTA) through specific case studies, teaching participants how to apply HTA disciplines in conducting assessments, generate recommendation reports, and communicate their findings effectively to health care decision makers, as well as explore issues surrounding implementation of the reports in regional contexts.

STATISTICAL CONSIDERATIONS IN HEALTH ECONOMIC EVALUATIONS Room 327

TRACK: Use of Pharmacoeconomic / Economic / Outcomes Research Information

LEVEL: Intermediate. This course is designed for those with a basic understanding of statistics.

FACULTY: Jalpa A. Doshi, PhD, Associate Professor of Medicine & Director, Economic Evaluations Unit, Center for Evidence-based Practice and Director, Value-based Insurance Design Initiatives, Center for Health Incentives and Behavioral Economics, University of Pennsylvania, Philadelphia, PA, USA; Chee-Jen Chang, PhD, Director & Professor, Chang Gung University, Taoyuan, Taiwan

COURSE DESCRIPTION: Adoption and diffusion of new medical treatments depend increasingly on robust analysis of costs and cost-effectiveness analysis (CEA). The source of this evidence often comes from patient-level economic data collected in clinical trials. This course will discuss statistical considerations when dealing with patient-level cost data, including the effect of distributional assumptions, univariate and multivariable analyses of data, sample size and power calculations, and estimation of sampling uncertainty for cost-effectiveness analysis. Examples will be provided to illustrate concepts.
SHORT COURSES: SUNDAY MORNING COURSES

HEALTH-RELATED QUALITY OF LIFE (HRQOL) WEIGHTS FOR ECONOMIC EVALUATIONS  
Room 324
TRACK: Patient Preference Methods
LEVEL: Introductory. No prior knowledge of health-related quality of life is assumed.
FACULTY: Alex Z. Fu, PhD, Associate Professor, Georgetown University, Washington, DC, USA; Nan Luo, PhD, Associate Professor, National University of Singapore, Singapore
COURSE DESCRIPTION: This course is designed to provide an overview of preference-based health-related quality of life measures to support economic evaluations. The concepts of utility or health-state utility measurement will be introduced, and similarities and differences with profile-based health-related quality of life measurement will be discussed. The course will describe how health-state utility data can be combined with survival to estimate quality-adjusted life years (QALY), which is applied in economic evaluations for valuing treatments or health outcomes. Methods that are used to capture utility values such as standard gamble, time trade-off, and rating scales will be introduced, along with a presentation of the different generic instruments that have been developed for measuring utilities such as the EQ-5D, Health Utilities Index, and SF-6D. Mapping functions (the practice of estimating the target health-state utility as a function of the health outcomes that have been measured in the key clinical studies of effectiveness, using an external dataset) will be described. Finally, faculty will describe the requirements and preferences of different reimbursement agencies around the world, including USA, Europe, and Asia. The course will be interactive with break-out sessions and group discussion.

NETWORK META-ANALYSIS AND INDIRECT TREATMENT COMPARISONS  
Room 323
TRACK: Outcomes Research Methods
LEVEL: Intermediate. This course is designed for those with some understanding of meta-analysis.
PREREQUISITE: Previous attendance at the ISPOR short course, “Meta-Analysis and Literature in Comparative Effectiveness Research,” or equivalent knowledge, is recommended.
FACULTY: Jeonghoon Ahn, PhD, MS, Associate Professor, Ewha Womans University, Seoul, South Korea; Nathorn Chaiyakunapruk, PhD, PharmD, Professor, Monash University Malaysia, Petaling Jaya, Malaysia; Peter Feng Wang, PhD, Director, Bristol-Myers Squibb, Princeton, NJ, USA
COURSE DESCRIPTION: When head-to-head randomized controlled trials are absent, network meta-analysis (also commonly referred to as a multiple treatment comparison meta-analysis or mixed treatment meta-analysis) offers a quantitative method of integrating all of the data from all of the available comparisons while indirect treatment comparisons can be conducted and provides useful evidence. In this course, the fundamentals and concepts of network meta-analysis will be presented. *ISPOR Good Research Practices for Conducting and Interpreting Network Meta-Analysis and Indirect Treatment Comparisons* will also be presented. Participants will be able to understand the concepts and assumptions of network meta-analysis (indirect and mixed treatment comparisons), such as heterogeneity, transitivity, and consistency, critically analyze the results of network meta-analysis, recognize the statistical models used to explore heterogeneity and inconsistency, and know that WinBUGS and SAS can be used to perform network meta-analysis.

BUDGET IMPACT AND COST ANALYSIS  
Room 326
TRACK: Economic Methods
LEVEL: Intermediate. This course is designed for those with some experience with pharmacoeconomic analysis.
FACULTY: J. Jaime Caro, MDCM, FRCP, FACP, Chief Scientist, Evidera, Lexington, MA, USA and Adjunct Professor of Medicine, McGill University, Montreal, QC, Canada; Allen Lai, PhD, MD, MSc, Principal in HEOR, IMS, Singapore
COURSE DESCRIPTION: This course will describe methods to determine the costs associated with a health condition and the budget impact of new technologies for that condition. Participants will learn the different types of analyses needed to complete a budget impact analysis, how to distinguish between static and dynamic budget impact models, and how to design a study to estimate the budget impact of a new health care intervention. The *ISPOR Good Research Practice Guidance on Budget Impact Analysis II* will be discussed, along with examples of budget impact models. Finally, important differences between cost effectiveness analysis and budget impact analysis will also be described.
RISK-SHARING/PERFORMANCE-BASED SCHEMES FOR DRUGS & MEDICAL DEVICES Room 325

TRACK: Use of Pharmacoeconomic / Economic / Outcomes Research Information
LEVEL: Intermediate. It will be helpful for individuals to be familiar with both the key determinants of pharmaceutical pricing and the main international health systems.

FACULTY: Louis P. Garrison, PhD, Professor, University of Washington, Seattle, WA, USA; Adrian Towse, MA, MPhil, Director, Office of Health Economics, London, UK; Min Hu, PhD, Lecturer of Health Economics & Assistant to the Dean, Fudan University, Shanghai, China; Bruce Wang, PhD, MA, Co-founder & Chief Executive Officer, Elysia Group Ltd, Taipei, Taiwan and Affiliate Assistant Professor, Department of Pharmacy, University of Washington, Seattle, WA, USA

COURSE DESCRIPTION: There is significant and growing interest among both the payers and producers of medical products for arrangements that involve a “pay-for-performance” or “risk-sharing” element. These payment schemes involve a plan by which the performance of the product is tracked in a defined patient population over a specified period of time and the level of reimbursement is tied by formula to the outcomes achieved. Although these agreements have an intrinsic appeal, there can be substantial barriers to their implementation. Theory and practice, including incentives and barriers, will be analyzed along with several country-specific examples.

NEW! HEALTH CARE SYSTEMS IN ASIA Room 300-301

TRACK: Use of Pharmacoeconomic / Economic / Outcomes Research Information
LEVEL: Introductory. This class is intended for those with limited experience with health care systems in Asia.

FACULTY: Bong-min Yang, PhD, Professor of Health Economics, Seoul National University, Seoul, South Korea; Kun Zhao, MD, PhD, Professor & Director, China National Health Development, Research Center, National Health and Family Planning Commission (NHFPC), Beijing, China; Bruce Crawford, MA, MPH, Senior Principal, Real World Evidence Solutions, IMS Japan KK, Minato-ku, Tokyo, Japan; Jitendar Sharma, PhD, CEO, Andhra Med Tech Zone (AMTZ) and Head, National Health Systems Resource Center, Ministry of Health and Family Welfare, New Delhi, India

COURSE DESCRIPTION: This course will introduce key components of health care systems, including health care costs, quality, and access. It will focus on major characteristics of health care systems in Asia, including health care needs and spending, management of essential medical products and technology, health financing systems, health care governance, access to health services and health care delivery systems, and outcomes measurements through the use of multi-country case studies.
From DC to Singapore to Vienna... ISPOR education brings the HEOR world together.

Short Courses are offered Saturday 29 October and Sunday 30 October in the following topical areas:

**Economic Methods**
- Introduction to Health Economic / Pharmacoeconomic Evaluations
- Statistical Methods for Pharmacoeconomics & Outcomes Research
- Cost-Effectiveness Analysis Alongside Clinical Trials
- Transferability of Cost-Effectiveness Data Between Countries
- Budget Impact Analysis I: A 6-Step Approach
- Budget Impact Analysis II: Applications & Design Issues

**Modeling Methods**
- Introduction to Modeling
- Development of Conceptual Models
- Pharmacoeconomic Modeling – Applications
- Bayesian Analysis – Overview and Applications
- Using DICE Simulation for Health Economic Analyses
- Understanding Survival Modeling with Application to HTA

**Observational Data Methods**
- Introduction to the Design & Analysis of Observational Studies of Treatment Effects Using Retrospective Data Sources
- Use of Propensity Scores in Observational Studies of Treatment Effects
- Patient Registries
- Use of Instrumental Variables in Observational Studies of Treatment Effects
- Advanced Methods for Addressing Selection Bias in Real-World Effectiveness and Cost-Effectiveness Studies
- Adjusting for Time-Dependent Confounding and Treatment Switching Bias in Observational Studies and Clinical Trials: Purpose, Methods, Good Practices, and Acceptance in HTA

**Outcomes Research Methods**
- Meta-Analysis & Systematic Literature Review
- Network Meta-Analysis in Relative Effectiveness Research

**Patient Preference Methods**
- Collecting Health-State Utility Estimates for Economic Models in Clinical Studies
- Conjoint Analysis – Theory & Methods

**Patient-Reported Outcomes Methods**
- Introduction to Patient-Reported Outcomes Assessment: Instrument Development & Evaluation
- Mixed Methods Approaches for Patient-Centered Outcomes Research: Group Concept Mapping

**Use of Pharmacoeconomic / Economic / Outcomes Research Information**
- Elements of Pharmaceutical / Biotech Pricing
- Introduction to Health Technology Assessment
- Risk-Sharing / Performance-Based Arrangements for Drugs and Other Medical Products
- Introduction to the Economic Analysis of Diagnostics
- Risk-Sharing/Performance-Based Arrangements in Central & Eastern Europe: Implementation of Managed Entry Agreements
- Reimbursement Systems for Pharmaceuticals / Biologics in Europe
- Using Multi-Criteria Decision Analysis in Health Care Decision Making: Approaches & Applications

>> HEOR Short Course Program
http://www.ispor.org/Event/index/2016Vienna

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ISPOR 19th Annual European Congress

29 October - 2 November 2016
Austria Center Vienna
Vienna, Austria

Managing Access to Medical Innovation:
Strengthening the Methodology-Policy Nexus

PROGRAM ANNOUNCED

EARLY REGISTRATION DEADLINE:
20 SEPTEMBER 2016

Join colleagues at the ISPOR 19th Annual European Congress (ISPOR Vienna) and hear from renowned experts in the health economics and outcomes research (HEOR) field!

• Learn new and novel applications in the conduct and use of HEOR.
• Engage with recognized global experts in the field.
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• Advance your career by participating in the ISPOR Short Course Program.

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Who Attends?
The ISPOR scope and sphere of influence comprises the international HEOR community: global leaders, policy makers, regulators, researchers, academicians, payers, decision makers, patients, and patient groups. This multi-stakeholder group is invested in using science and research to make better health care decisions.

Trending topics for ISPOR Vienna:
Adaptive Pathways • Biosimilars • Value Assessment • Oncology • Simulation Modeling • Health Technology Assessment • Comparative Effectiveness • Value of Information • Medical Devices • Differential Pricing • Patient Engagement • Survival Analysis • Rare Diseases • Early Access Schemes • Personalized Medicine • Health State Utility Values • Patient Preferences • Multi-Criteria Decision Analysis • Managed Entry Agreements • Health Economic Evaluation

Plenary Session Highlights
• What Synergies Could Be Created between Regulatory and Health Technology Assessments?
• Differential Pricing of Medicines in Europe: Implications for Access, Innovation, and Affordability
• How to Control Costs and Improve Access to Medicines: Lessons from the InterQuality Project

For complete program details and to register, visit http://www.ispor.org/Event/index/2016Vienna

Last year’s ISPOR 18th Annual European Congress hosted 5,200+ attendees from 90 countries and facilitated more than 2,450 presentations!
ISPOR 7th Asia-Pacific Conference

3-6 September 2016
Suntec Singapore Convention & Exhibition Center
Singapore

Program and Schedule of Events
## PROGRAM & SCHEDULE OF EVENTS

### SATURDAY, 3 SEPTEMBER

#### 8:00AM-12:00PM  SHORT COURSE MORNING SESSION  Separate Registration Required (Please see ISPOR Registration)

- Introduction to Pharmacoeconomics/Health Economics  **Room 324**
- New: Health care data and informatics  **Room 325**
- Elements of pharmaceutical/biotech pricing  **Room 326**
- Introduction to Health Technology Assessment  **Room 323**
- Cost effectiveness analysis alongside clinical trials  **Room 300-301**

<table>
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| 12:00PM-1:00PM | **LUNCH**  
Attendees on their own |
| 1:00PM-5:00PM | **SHORT COURSE AFTERNOON SESSION**  Separate Registration Required (Please see ISPOR Registration) |
| 5:15PM-6:15PM | **EDUCATIONAL SYMPOSIUM**  
Room 328-329 |
| 6:30PM-7:30PM | **EDUCATIONAL SYMPOSIUM**  
Room 328-329  
AbbVie |
| 7:45PM-8:45PM | **EDUCATIONAL SYMPOSIUM**  
Room 328-329  
GSK |
| 9:00PM-10:30PM | **WELCOME RECEPTION**  
Room 308-310  
All attendees welcome, no separate registration required. Please join us for a traditional performance to open the reception followed by an opportunity to network with colleagues while enjoying a drink and appetizers.  
Co-Sponsored by Merck Serono |

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PROGRAM & SCHEDULE OF EVENTS: SUNDAY, 4 SEPTEMBER

SUNDAY, 4 SEPTEMBER

8:00AM-12:00PM  SHORT COURSE MORNING SESSION Separate Registration Required (Please see ISPOR Registration)

(See page 24-26 for Short Course descriptions)
STATISTICAL CONSIDERATIONS IN HEALTH ECONOMIC EVALUATIONS Room 327
HEALTH-RELATED QUALITY OF LIFE (HRQOL) WEIGHTS FOR ECONOMIC EVALUATIONS Room 324
NETWORK META-ANALYSIS AND INDIRECT TREATMENT COMPARISONS Room 323
BUDGET IMPACT AND COST ANALYSIS Room 326
RISK-SHARING/PERFORMANCE-BASED SCHEMES FOR DRUGS & MEDICAL DEVICES Room 325
NEW! HEALTH CARE SYSTEMS IN ASIA Room 300-301

12:00PM-1:00PM  LUNCH Attendees on their own

12:30PM-7:30PM  RESEARCH POSTER PRESENTATIONS – SESSION I Nicoll 1-3

(See pages 46-47 for Research Poster Presentation information)

1:00PM-1:30PM  WELCOME Summit 1

WELCOME FROM ISPOR ASIA CONSORTIUM EXECUTIVE COMMITTEE CHAIR

(See page 76 for biographical information)
Isao Kamae, MD, DrPH, 2016-2018 ISPOR Asia Consortium Executive Committee Chair and Professor of Health Technology Assessment and Public Policy, Graduate School of Public Policy, The University of Tokyo, Tokyo, Japan

WELCOME FROM CONFERENCE CO-CHAIRS

(See page 76-77 for biographical information)
Wai Keung Chui, PhD, Associate Professor, Department of Pharmacy, National University of Singapore, Singapore
Syed Aljunid, MD, PhD, Professor, Health Economics and Public Health Medicine & Head, International Centre for Casemix and Clinical Coding, Faculty of Medicine, National University of Malaysia, Kuala Lumpur, Malaysia
Ahmad Fuad Afdhal, PhD, Director, Center for Socio-Economic Studies in Pharmacy, Jakarta, Indonesia

WELCOME FROM ISPOR PRESIDENT

(See page 76 for biographical information)
Lou Garrison, PhD, 2016-2017 ISPOR President and Professor, Pharmaceutical Outcomes Research & Policy Program, School of Pharmacy, University of Washington, Seattle, USA

WELCOME FROM ISPOR CEO/EXECUTIVE DIRECTOR

(See page 77 for biographical information)
Nancy S. Berg, BSc, CEO & Executive Director, ISPOR, Lawrenceville, NJ, USA

1:30PM-1:45PM  OPENING SPEECH Summit 1

(See page 79 for biographical information)
John CW Lim, Deputy Director of Medical Services (Industry & Research Matters), Ministry of Health and Executive Director of Centre of Regulatory Excellence, Duke-NUS Medical School, Singapore
ISPOR 7th Asia-Pacific Conference
3-6 September 2016 • Suntec Singapore Convention & Exhibition Center, Singapore

Program & Schedule of Events: Sunday, 4 September

1:45PM-3:15PM  FIRST PLENARY SESSION  Summit 1

FIRST PLENARY SESSION: HEALTH TECHNOLOGY ASSESSMENT AND HEALTH POLICY: RECENT DEVELOPMENTS ACROSS ASIA

(See page 77-79 for biographical information)

Health systems in Asia are undergoing a period of rapid change as they struggle to cope with immediate challenges, such as expanding elderly populations, growing demand for high-quality health care and the need to address inequitable access to health care. In light of these issues, health technology assessment (HTA) will be essential as a means to inform evidence-based decisions and ensure efficient use of scarce resources. This session will provide insight into the current status of HTA and related health policy in Asia, sharing perspectives and experiences, lessons learned, and future trends.

Moderator: Syed Aljunid, MD, PhD, Professor, Health Economics and Public Health Medicine & Head, International Centre for Casemix and Clinical Coding, Faculty of Medicine, National University of Malaysia, Kuala Lumpur, Malaysia

Speakers:
Visanu Thamlikitkul, MD, Professor, Department of Medicine & Head, Division of Infectious Diseases and Tropical Medicine, Faculty of Medicine, Siriraj Hospital at Mahidol University and Former Chair, Subcommittee of National List of Essential Medicines, Bangkok, Thailand
Takashi Fukuda, PhD, Director, Department of Health and Welfare Services, National Institute of Public Health, Saitama, Japan
Tae-jin Lee, MPH, PhD, Professor, Health Economics, School of Public Health, Seoul National University and President, Korea Association of Health Economics and Policy, Seoul, South Korea
Kwong Hoe Ng, Head, Evaluation and Appraisal, Agency for Care Effectiveness, Ministry of Health, Singapore

3:15PM-3:45PM  BREAK, EXHIBITS & RESEARCH POSTER PRESENTATIONS VIEWING – SESSION I Nicoll 1-3

(See pages 46-47 for Research Poster Presentation information)

3:45PM-4:45PM  ISSUE PANELS – SESSION I

(See pages 52-53 for Issue Panel descriptions)

HEALTH POLICY DEVELOPMENT USING OUTCOMES RESEARCH ISSUES

IP1: SETTING BUDGET IMPACT ANALYSIS THRESHOLDS IN ASIA AND ABROAD: IS THRESHOLD TRANSPARENCY PRUDENT AND FOR WHOM? Summit 1

Moderator: Piyameth Dilokthornsakul, PharmD, PhD, Center of Pharmaceutical Outcomes Research, Naresuan University, Muang, Phitsanulok, Thailand

Panelists: Jonathan D. Campbell, PhD, Assistant Professor, Center for Pharmaceutical Outcomes Research, University of Colorado Anschutz Medical Campus, Denver, CO, USA; Jeonghoon Ahn, PhD, Associate Professor, Department of Health Convergence, Ewha Womans University, Seoul, South Korea; Nathorn Chaiyakunapruk, PharmD, PhD, Professor of Health Economics, School of Pharmacy, Monash University Malaysia, Selangor Darul Ehsan, Malaysia

IP2: GROWING DEMANDS FOR HTA IN ASIA: HOW CAN PUBLIC-PRIVATE-ACADEMIC PARTNERSHIPS BE STRENGTHENED?

Moderator: Isao Kamae, MD, DrPH, Professor of Health Technology Assessment and Public Policy, Graduate School of Public Policy, The University of Tokyo, Tokyo, Japan

Panelists: Allen Yu-Hung Lai, MD, MSc, MPA, PhD, Principal of Health Economics & Outcomes Research, IMS Health, Singapore; Akio Onishi, PhD, Professor, Graduate School of Public Policy, Tokyo, Japan; Jörg Mahlich, PhD, Health Economics, Janssen Pharmaceuticals KK, Tokyo, Japan

IP3: JOINT HTA: THE NEXT STEP FOR THE ASEAN ECONOMIC COMMUNITY?

Moderator: Gengshi Chen, MSci, Senior Analyst, Costello Medical Singapore Pte Ltd, Singapore

Panelists: Surachat Ngorsuraches, PhD, Associate Professor, Department of Pharmacy Practice, College of Pharmacy, South Dakota State University, Brookings, SD, USA; W. Ken Redekop, PhD, MPH, Associate Professor, Institute for Medical Technology Assessment, Erasmus University Rotterdam, Rotterdam, The Netherlands

ECONOMIC OUTCOMES RESEARCH ISSUES

IP4: RISKY BUSINESS: DECISION MAKING IN HEALTH CARE WITH ECONOMIC MODELLING UNCERTAINTY

Moderator: Paul Scuffham, PhD, Professor of Health Economics, Population and Social Health Research, Griffith University, Gold Coast, Australia

Panelists: Hansoo Kim, MStat, Market Access Manager, Bristol-Myers Squibb Australia, Mulgrave, Australia; Stephen Goodall, PhD, MSc, Associate Professor, Centre for Health Economics Research and Evaluation, University of Technology Sydney, Sydney, Australia; Rosalie Viney, PhD, Professor, Centre for Health Economics Research and Evaluation, University of Technology Sydney, Sydney, Australia
**Program & Schedule of Events: Sunday, 4 September**

### Patient-Reported Outcomes & Patient Preference Research Issues


**Moderator:** Nan Luo, PhD, Associate Professor, National University of Singapore, Singapore  
**Panelists:** Kim Rand-Hendriksen, PhD, CPsychol, Post-Doctoral Fellow, Department of Health Management and Health Economics, University of Oslo, Oslo, Norway; Juan Manuel Ramos-Goñi, MSc, Research Scientist, The EuroQol Research Foundation, Rotterdam, The Netherlands; Mark Oppe, PhD, Senior Scientist, Executive Office, EuroQol Research Foundation, Rotterdam, The Netherlands

4:45PM-5:00PM  **Break, Exhibits & Research Poster Presentations Viewing – Session I**  
(See pages 46-47 for Research Poster Presentation information)

### Health Policy Development Using Outcomes Research

#### W1: Applying Health Technology Assessment to Precision Medicine: Evaluating Novel Diagnostic Tests Room 324

**Discussion Leaders:** W. Ken Redekop, PhD, Associate Professor, Institute of Health Policy & Management, Erasmus University Rotterdam, Rotterdam, The Netherlands; Hwee Lin Wee, PhD, Assistant Professor, Pharmacy, National University of Singapore, Singapore; Joanne Yoong, PhD, Senior Economist, University of Southern California and Associate Professor, National University of Singapore (NSU), Singapore

4:00PM-5:00PM  **Workshops – Session I**  
(See pages 58-59 for Workshop descriptions)

### Use of Real World Data

#### W2: Evolving Methods for Staging Prospective Real-World Evidence Studies in Mature and Emerging Markets Summit 1

**Discussion Leaders:** David Thompson, PhD, Senior Vice President, Real World Evidence Consulting, inVentivHealth, Burlington, MA, USA; Jianwei Xuan, MD, PhD, Advisory Professor, School of Public Health, Fudan University, Shanghai, China; Linda Long, BS, Project Director, Late Stage Operations, APAC, inVentiv Health, Singapore

5:00PM-6:00PM  **Workshops – Session I**  
(See pages 58-59 for Workshop descriptions)

### Patient-Reported Outcomes & Patient Preference Research

#### W3: An Introduction to the CaseMix Database in Malaysia, Indonesia, and Philippines Room 300-301

**Discussion Leaders:** Syed Mohamed Aljunid, MD, MSc, PhD, Professor, Faculty of Public Health, Department of Health Policy and Management, Kuwait University, Kuwait City, Kuwait; Soraya Azmi, MD, MPH, Managing Director, Azmi Burhani Consulting, Petaling Jaya, Malaysia; Adrian Goh, MEC, Health Economist, Azmi Burhani Consulting, Petaling Jaya, Malaysia; Amrizal Muhd Nur, MD, MSc, PhD, Senior Research Fellow, Universiti Kebangsaan Malaysia, Cheras, Malaysia

5:00PM-6:00PM  **Workshops – Session I**  
(See pages 58-59 for Workshop descriptions)

### Patient-Reported Outcomes & Patient Preference Research

#### W4: Combining Two Types of Valuation Data to Estimate Health State Utilities: The Hybrid Regression Model Room 326

**Discussion Leaders:** Juan Manuel Ramos-Goñi, MSc, Research Scientist, The EuroQol Research Foundation, Rotterdam, The Netherlands; Mark Oppe, PhD, Senior Scientist, Executive Office, EuroQol Research Foundation, Rotterdam, The Netherlands; Nan Luo, PhD, Assistant Professor, Saw Swee Hock School of Public Health, National University of Singapore, Singapore; Kim Rand-Hendriksen, PhD, CPsychol, Post-Doctoral Fellow, Department of Health Management and Health Economics, University of Oslo, Oslo, Norway

6:00PM-7:30PM  **Exhibitors’ Reception & Research Poster Presentations Viewing – Session I | Nicoll 1-3**  
(See pages 46-47 for Research Poster Presentation information)  
Reception sponsored by Quintiles

6:30PM-7:30PM  **Research Poster Author Discussion Hour – Session I | Nicoll 1-3**  
(See pages 46-47 for Research Poster Presentation information)

7:30PM-9:00PM  **Asia Consortium Reception Room 308-309**  
All attendees welcome. Meet leaders from the Asia-Pacific region. Students and newcomers particularly encouraged to attend.
### Educational Symposium Summit 1

**Managing High-Cost Innovative Medicines in Asia: What Are the Latest Trends and Real-World Practice?**

Sponsored by TEVA

**8:30AM-7:30PM**
**Research Poster Presentations – Session II Nicoll 1-3**

(See page 67 for Research Poster Presentation information)

**8:30AM-9:30AM**
**Research Podium Presentations – Session I**

(Abstracts are currently available on the [https://myisporsingapore.zerista.com website](https://myisporsingapore.zerista.com), ISPOR Singapore mobile app, and abstracts PDF on the ISPOR website.)

### Cancer Outcomes Studies Summit 1

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<tr>
<td>8:30AM-8:45AM</td>
<td><strong>Two New Cancer-Specific Multi-Attribute Utility Instruments: EORTC QLU-C10D and FACT-8D</strong></td>
<td>King MT, Norman R, Viney R, Costa D, Brazier J, Cella D, Gamper E, Kemmler G, McTaggart-Cowan H, Peacock S, Pickard AS, Rowen D, Young TA, University of Sydney, Sydney, Australia, Curtin University, Perth, Australia, University of Sheffield, Sheffield, UK, Northwestern University, Chicago, IL, USA, Medical University of Innsbruck, Innsbruck, Austria, Medical University of Innsbruck, Department of Psychiatry and Psychotherapy, Innsbruck, Austria, Canadian Centre for Applied Research in Cancer Control (ARCC), British Columbia Cancer Agency, Vancouver, BC, Canada, University of Illinois at Chicago, Chicago, IL, USA</td>
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<td>8:45AM-9:00AM</td>
<td><strong>Breast Cancer in China: Room for Improved Screening</strong></td>
<td>Stankus AP, Vietri J, Liu GG, Kantar Health, Horsham, PA, USA, Peking University, Beijing, China</td>
</tr>
<tr>
<td>9:00AM-9:15AM</td>
<td><strong>The Quality of Pharmacoeconomic Publications in Breast Cancer Pharmacotherapies in China</strong></td>
<td>Ma F, Cheng X, Zhou J, Aballèa S, Toumi M, Creativ-Ceutical, Beijing, China, Creativ-Ceutical, Hong Kong, China, Creativ-Ceutical, Paris, France, Aix-Marseille University, Marseille, France</td>
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<tr>
<td>9:15AM-9:30AM</td>
<td><strong>Gender-Specific Patterns of Productivity Loss in Colorectal Cancer Survivors in a Multi-Ethnic Asian Population</strong></td>
<td>Soon S, Chia JW, Chew MH, Tan WS, Yang XY, Wee HL, National University of Singapore, Singapore, National Cancer Centre Singapore, Singapore, Singapore General Hospital, Singapore</td>
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### Cost Utility and QALY Studies Room 325

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<thead>
<tr>
<th>Time</th>
<th>Title</th>
<th>Authors</th>
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<tr>
<td>8:30AM-8:45AM</td>
<td><strong>Cost-Utility Analysis of Herpes Zoster Vaccine in Thailand</strong></td>
<td>Taychakhoonavudh S, Surranan N, Issaraseenee K, Laopratsutz C, Jamton S, Chanyachailert P, Leeypahan C, Faculty of Pharmaceutical Sciences, Chulalongkorn University, Bangkok, Thailand, Department of Dermatology, Faculty of Medicine Siriraj Hospital, Mahidol University, Bangkok, Thailand</td>
</tr>
<tr>
<td>8:45AM-9:00AM</td>
<td><strong>Forecasting Lifetime Health Outcomes and Costs of Treatment for Non-Alcoholic Fatty Liver Disease</strong></td>
<td>Chongmelaxme B, Phisalprapa P, Sawangjit R, Dilokthornsakul P, Chaiyakunapruk N, Naesuan University, Phitsanulok, Thailand, Mahidol University, Bangkok, Thailand, Mahasarakham University, Muang, Thailand, Monash University Malaysia, Selangor, Malaysia</td>
</tr>
<tr>
<td>9:00AM-9:15AM</td>
<td><strong>Life Expectancy, Quality-Adjusted Life Years, and Total Lifetime Costs for Australian People with Multiple Sclerosis</strong></td>
<td>Palmer AJ, Taylor B, Van der Mei I, Si L, Ahmad H, University of Tasmania, Hobart, Australia</td>
</tr>
<tr>
<td>9:15AM-9:30AM</td>
<td><strong>Development of an Alcohol Policy Model that Predicts Life Years, QALYS, and Health Care Costs Accounting for Alcohol Use Disorder Identification Test</strong></td>
<td>Lewsey J, Leelahavarong P, Briggs A, University of Glasgow, Glasgow, UK</td>
</tr>
</tbody>
</table>
HEALTH CARE EXPENDITURE AND PRICING STUDIES  Room 300-301

HC1 IMPACT OF ADOPTION OF A NEW DRUG ON THE TRENDS IN UTILIZATION PATTERNS CHANGES AND PHARMACEUTICAL EXPENDITURE- AN EXAMPLE OF URATE-LOWERING THERAPY
8:30AM-8:45AM
Peng Y1, Hsu C1, 1Kaohsiung Medical University, Kaohsiung, Taiwan, 2Kaohsiung Chang Gung Memorial Hospital, Kaohsiung, Taiwan

HC2 MULTIMORBIDITY AND HEALTH CARE SERVICE UTILIZATION IN THE AUSTRALIAN WORKFORCE: FINDINGS FROM THE NATIONAL HEALTH SURVEY
8:45AM-9:00AM
Wang L1, Palmer AJ1, Cocker F1, Sanderson K1, 1Menzies Institute for Medical Research, Hobart, Australia, 2Monash Centre for Occupational and Environmental Health (MonCOEH), Melbourne, Australia

HC3 COMPARISON OF MEDICAL COSTS, HEALTH CARE UTILIZATION, AND HEALTH OUTCOMES BETWEEN THE ELDERLY WITH AND WITHOUT DISABILITIES IN KOREA
9:00AM-9:15AM
Kim HJ1, Lee S1, Kim JH1, Ho SH1, Lee SJ2, Lee B3, 1Korea National Rehabilitation Center, National Rehabilitation Research Institute, Seoul, South Korea, 2Korea National Rehabilitation Center, National Rehabilitation Hospital, Seoul, South Korea

HC4 DERIVATION AND EXTERNAL VALIDATION OF AN EARLY READMISSION RISK PREDICTION MODEL
9:15AM-9:30AM
Dorajoo SR1, See V1, Chan CT1, Tan ZY2, Koomanan N3, Razak SM4, Yap CW1, Chan A1, 1National University of Singapore, Singapore, 2Khoo Teck Puat Hospital, Singapore, 3Singapore General Hospital, Singapore, 4Temasek Polytechnic, Singapore

INFECTION STUDIES Room 324

IN1 BUSINESS INTELLIGENCE FOR DETECTING POSSIBLE SURGICAL SITE INFECTIONS FROM GALLBLADDER SURGERY (CHOL) AND COLON SURGERY (COLO) IN RAMATHIBODI HOSPITAL, THAILAND
8:30AM-8:45AM
Piebpien P1, Vajiratanakorn S1, Somsakul S1, Muntajit T1, Sukkra S1, Leelaudomlipi S1, Samankatiwat P1, Malathum K1, Faculty of Medicine Ramathibodi Hospital, Mahidol University, Bangkok, Thailand

IN2 AN UPDATED COST-EFFECTIVENESS ANALYSIS OF SYNFLORIX UNIVERSAL MASS VACCINATION IMPLEMENTATION IN NEW ZEALAND
8:45AM-9:00AM
Varghese L1, Talbot L1, Govender A1, Mungall B1, 1GlaxoSmithKline Vaccines, Singapore, 2GlaxoSmithKline Vaccines, Auckland, New Zealand

IN3 EFFECTS OF HBSAG POSITIVITY DURING PREGNANCY ON ADVERSE MATERNAL OUTCOMES: A RETROSPECTIVE DATABASE ANALYSIS
9:00AM-9:15AM
Tan J1, Sun X1, 1School of West China Public Health, Sichuan University, Chengdu, China, 2West China Hospital of Sichuan University, Chengdu, China

IN4 THE SALE OF ANTIBIOTICS WITHOUT PRESCRIPTION IN RETAIL PHARMACIES: A CROSS-SECTIONAL SURVEY IN THREE CITIES OF CHINA
9:15AM-9:30AM
Chang J1, Ye D, Fang Y1, Xi’an Jiaotong University, Xi’an, China

RESEARCH ON METHODS STUDIES Room 326

RM1 NETWORK META-ANALYSIS OF RANDOMIZED TRIALS TO COMPARE THE EFFICACY OF NSAIDS, STATINS AND VITAMINS IN ALZHEIMER’S DISEASE
8:30AM-8:45AM
Pandey R1, Jha D2, Pandey P1, Shah V1, 1SIRO Clinpharm Pvt Ltd, Thane, India, 2Birla Institute of Technology, Ranchi, India, 3SIRO Clinpharm Pvt Ltd, Maharashtra, India

RM2 DEVELOPMENT, VALIDATION, AND PILOT TESTING OF METABOLIC SYNDROME QUALITY OF LIFE QUESTIONNAIRE (TAPMETSQOL)
8:45AM-9:00AM
Kethiredy Y1, Tallav P, Pasam Ns, Koutika N, Hunsur Nagendra V, Talla Padmavathi College of Pharmacy, Warangal, India

RM3 COMPARISON OF CAREGIVER-RATED 3-LEVEL EUROQOL-5D (EQ-SD-3L) AND HEALTH UTILITIES INDEX MARK 3 (HUI3) IN PATIENTS WITH DEMENTIA IN SINGAPORE
9:00AM-9:15AM
Wang VW1, Kandiah N1, Lim X1, Wee HL1, 1National University of Singapore, Singapore, 2National Neuroscience Institute, Singapore

RM4 RELIABILITY AND VALIDITY OF THE HEALTH ASSESSMENT QUESTIONNAIRE (HAQ) IN PATIENTS WITH SPONDYLOARTHRITIS
9:15AM-9:30AM
Kwan YH1, Yong ST1, Fong W1, Lui NL2, Malhotra R1, Thumboo J1, Ostbye T1, 1Duke-NUS Medical School, Singapore, 2Singapore General Hospital, Singapore, 3Singhealth, Singapore
9:45AM-10:45AM RESEARCH PODIUM PRESENTATIONS – SESSION II

(Abstracts are currently available on the https://myisporsingapore.zerista.com website, ISPOR Singapore mobile app, and abstracts PDF on the ISPOR website.)

COST-EFFECTIVENESS STUDIES Room 325

CE1 CLINICAL OUTCOMES AND COST-EFFECTIVENESS OF NOVEL ORAL ANTI COAGULANTS INCORPORATING REAL-WORLD ELDERLY PATIENTS WITH ATRIAL FIBRILLATION
9:45AM-10:00AM
Zhao YJ1, Lin L1, Zhou HJ1, Khoo AL1, Tan KT2, Chew AP2, Foo CG2, Oh CT3, Lim WS4, Lim BP4, 1Pharmacy and Therapeutics Office, Group Corporate Development, National Healthcare Group, Singapore, 2Department of Pharmacy, Tan Tock Seng Hospital, Singapore, 3Department of Geriatric Medicine, Tan Tock Seng Hospital, Singapore, 4Department of Cardiology, Tan Tock Seng Hospital, Singapore, 5Department of Neurology, National Neuroscience Institute, Singapore

CE2 COST-EFFECTIVENESS OF BRENTUXIMAB VEDOTIN IN RELAPSED OR REFRACTORY SYSTEMIC ANAPLASTIC LARGE CELL LYMPHOMA IN TAIWAN
10:00AM-10:15AM
Zou D1, Kendall R2, Lin Q2, Huang Y3, Tieng J3, Tseng J3, Sajosi P4, 1ICON plc, Vancouver, BC, Canada, 2Kantar Health, Taipei, Taiwan, 3Takeda Pharmaceuticals Taiwan, Taipei, Taiwan, 4Takeda Pharmaceuticals International AG, Zurich, Switzerland

CE3 COST-EFFECTIVENESS OF CYP2C19*2 GENOTYPE GUIDED SELECTION OF CLOPIDOGREL OR TICAGRELOR IN HONG KONG CHINESE PATIENTS WITH ACUTE CORONARY SYNDROME
10:15AM-10:30AM
Lee VW1, Wang Y1, Liew D2, Yan BP1, 1The Chinese University of Hong Kong, Shatin, Hong Kong, China, 2Monash University, Melbourne, Australia

CE4 THE MULTIDISCIPLINARY RISK ASSESSMENT AND MANAGEMENT PROGRAM – DIABETES MELLITUS WAS COST-EFFECTIVE FOR MANAGING PATIENTS WITH DIABETES MELLITUS
10:30AM-10:45AM
Jiao F, Lam CL, Fung CS, Wan EY, Wong CK, McGhee S, The University of Hong Kong, Hong Kong, China

CARDIOVASCULAR OUTCOMES STUDIES Summit 1

CV1 CAN ACUTE PHASE CLINICAL OUTCOMES PREDICT HEALTH-RELATED QUALITY OF LIFE AFTER STROKE?
9:45AM-10:00AM
Yeoh YS, Luo N, Koh GC, National University of Singapore, Singapore

CV2 QUALITY OF LIFE OF STROKE SURVIVORS AND THEIR INFORMAL CAREGIVERS: A PROSPECTIVE STUDY
10:00AM-10:15AM
Chuluunbaatar E, National Yang Ming University, Ulaanbaatar, Mongolia

CV3 ONGOING ANALYSIS OF CLINICAL AND ECONOMIC OUTCOMES OF JAPANESE PATIENTS WITH CORONARY HEART DISEASE UNDERGOING PERCUTANEOUS CORONARY INTERVENTION
10:15AM-10:30AM
Martinsen BJ, Cardiovascular Systems, Inc., St. Paul, MN, USA

CV4 ADOPTION OF INNOVATIVE TECHNOLOGIES AND SUBSTITUTION EFFECTS: COMPUTED TOMOGRAPHIC CORONARY ANGIOGRAPHY IN AUSTRALIA
10:30AM-10:45AM
Geritic CA1, Mohasseb IP, Duncan E2, Younger J3, 1University of Queensland, Brisbane, Australia, 2Royal Brisbane and Women’s Hospital, Brisbane, Australia, 3Queensland University of Technology, Brisbane, Australia

DIABETES OUTCOMES STUDIES Room 300-301

DB1 DPP-4 INHIBITORS AND CARDIOVASCULAR EVENTS IN TYPE 2 DIABETIC PATIENTS WITH CHRONIC KIDNEY DISEASE – A NATIONWIDE COHORT STUDY
9:45AM-10:00AM
Huang T, Hsiao F, Shen L, National Taiwan University Hospital, Taipei, Taiwan

DB2 HBA1C VARIABILITY PREDICTS SHORT-TERM RISK OF ALBUMINURIA IN PATIENTS WITH TYPE 2 DIABETES
10:00AM-10:15AM
Dorajoo SR1, Ng SL1, Goh HF2, Lim SC3, Yap CW4, Chan A1, Lee J5, 1National University of Singapore, Singapore, 2Khoo Teck Puat Hospital, Singapore

DB3 INCREMENTAL COST-EFFECTIVENESS OF ALGORITHM-DRIVEN GENETIC TESTING VERSUS NO TESTING FOR MATURITY ONSET DIABETES OF THE YOUNG (MODY) IN SINGAPORE
10:15AM-10:30AM
Nguyen HV1, Finkelstein EA2, Mital S3, Gardner DS4, 1Duke NUS Medical School, Singapore, 2Singapore General Hospital, Singapore

DB4 RELATIONSHIP BETWEEN INSULIN ADHERENCE AND HEALTH CARE RESOURCE UTILIZATION AMONG TYPE 2 DIABETES PATIENTS IN CHINA
10:30AM-10:45AM
He X1, Wang K2, Shen L2, Wu J3, 1Tianjin University, Tianjin, China, 2Lilly Suzhou Pharmaceutical Company, Ltd., Shanghai, China
DISEASE MANAGEMENT STUDIES  Room 324

DM1  9:45AM-10:00AM
COMMUNITY RESIDENTS’ KNOWLEDGE AND ATTITUDES TOWARDS ANTIBIOTICS IN PENANG, MALAYSIA: A CROSS-SECTIONAL STUDY
Irawati L1, Hassali MA1, Saleem F1, Alrasheedya AA2, 1Universiti Sains Malaysia, Penang, Malaysia, 2Qassim University, Qassim, Saudi Arabia

DM2  10:00AM-10:15AM
PATIENT CHARACTERISTICS AND TREATMENT PATTERNS OF VENOUS THROMBOEMBOLISM (VTE) AMONG HOSPITALIZED PATIENTS IN CHINA: AN ANALYSIS OF ELECTRONIC MEDICAL RECORD DATA
Wu C1, Chen H2, Xie J1, Han S1, Horblyuk R1, Wang PP2, Liu L2, Lu J3, Song H4, Du EX5, Wu EQ6, 1Peking University Shenzhen Hospital, Shenzhen, China, 2Peking University People’s Hospital, Beijing, China, 3Analysis Group, Inc., New York, NY, USA, 4Analysis Group, Inc., Beijing, China, 5Pfizer, Inc., New York, NY, USA, 6Bristol-Myers Squibb, Princeton, NJ, USA, 7Merck, New York, NY, USA, 8Pfizer Investment Co., Ltd., Beijing, China, 9Analysis Group, Inc., Boston, MA, USA

DM3  10:15AM-10:30AM
ADHERENCE TO OSTEOPOROSIS DRUGS AND CLINICAL OUTCOMES AMONG OSTEOPOROSIS PATIENTS WITH DIFFERENT RISK PROFILES
Huang S1, Wang C1, Lu W1, Hsiao F1, 1School of Pharmacy, College of Medicine, National Taiwan University, Taipei, Taiwan, 2National Taiwan University, Taipei, Taiwan

DM4  10:30AM-10:45AM
COMPARATIVE EFFECTIVENESS ANALYSIS FOR SMOKING CESSATION MEDICATIONS ON SMOKING CESSATION AND RELAPSES AMONG ELDERLY SMOKERS
Yuan Y1, Chang P1, Lo P1, Chang H1, Su P1, Hsueh K1, Tsai Y1, Lan T1, 1Cheng-Hsin General Hospital, Taipei, Taiwan, 2Department of Medicine, Stanford University School of Medicine, California, CA, USA, 3Institute of Health and Welfare Policy, National Yang-Ming University, Taipei, Taiwan, 4Department of Psychiatry, Taichung Veterans General Hospital, Taichung, Taiwan, 5Kaohsiung Veterans General Hospital, Kaohsiung, Taiwan, 6Center for Geriatrics and Gerontology Taichung Veterans General Hospital, Taichung, Taiwan

HEALTH TECHNOLOGY ASSESSMENT STUDIES  Room 326

HT1  9:45AM-10:00AM
WHAT DO HTAS LOOK LIKE AROUND THE WORLD? A COMPARISON OF SOUTH KOREAN AND BRITISH HTA AGENCIES

HT2  10:00AM-10:15AM
A HEALTH TECHNOLOGY ASSESSMENT OF HOME-BASED HAEMODIALYSIS IN ESRD PATIENTS
Chahar A1, Sharma M, Sharma J, WHO Collaborating Centre for Priority Medical Devices & Health Technology Policy, NHRSC, New Delhi, India

HT3  10:15AM-10:30AM
DIFFERENTIAL PATTERNS OF PERSISTENT OPIOID USE IN PATIENTS WITH CANCER AND NON-CANCER PAIN
Sani AB1, Zin CS1, Noor ZM1, Mohamed AH1, Nissen LM2, 1International Islamic University Malaysia, Kuantan, Malaysia, 2Queensland University of Technology, Kelvin Grove, Australia

HT4  10:30AM-10:45AM
HUMANISTIC AND ECONOMIC OUTCOMES OF PHARMACIST-PROVIDED MEDICATION REVIEWS IN THE ELDERLY: A SYSTEMATIC REVIEW AND META-ANALYSIS
Loh ZW1, Cheen HH2, Wee HL1, 1National University of Singapore, Singapore, 2Singapore General Hospital, Singapore

10:45AM-11:15AM  BREAK, EXHIBITS & RESEARCH POSTER PRESENTATIONS VIEWING – SESSION II Nicoll 1-3

11:15AM-12:45PM  WELCOME & SECOND PLENARY SESSION Summit 1

WELCOME FROM ISPOR ASIA CONSORTIUM EXECUTIVE COMMITTEE CHAIR
(See page 76 for biographical information)
Isao Kamae, MD, DrPH, 2016-2018 ISPOR Asia Consortium Executive Committee Chair and Professor of Health Technology Assessment and Public Policy, Graduate School of Public Policy, The University of Tokyo, Tokyo, Japan
SECOND PLENARY SESSION: HARNESURING THE POWER OF BIG DATA TO MAKE BETTER HEALTH CARE DECISIONS IN THE ASIA-PACIFIC REGION

Health care in Asia is embracing the global big data movement since big data has tremendous potential to add value in all health care settings. This session will discuss key ways in which big data can deliver value through clinical and financial benefits to health systems, such as aiding personalized medicine and streamlining health resource planning. It will also discuss current challenges and opportunities for utilizing big data to improve health care decision making in the Asia-Pacific region while addressing multi-stakeholder perspectives and regional considerations.

Moderator: Louisa Jorm, PhD, Professor & Director, Centre for Big Data Research in Health, University of New South Wales (UNSW), Sydney, Australia

Speakers:
Christopher Chute, MD, DrPH, Bloomberg Distinguished Professor of Health Informatics, Professor of Medicine, Public Health, and Nursing, and Chief Health Research Information Officer, Johns Hopkins Medicine, Johns Hopkins University, Baltimore, MD, USA
Trish Williams, PhD, Professor & Chair of Digital Health Technologies, Finders University, Adelaide, Australia
Yoke Sin Chong, PhD, Chief Executive Officer, Integrated Health Information Systems Pte Ltd, Singapore

12:45PM-3:45PM  LUNCH, EXHIBITS & RESEARCH POSTER PRESENTATIONS VIEWING – SESSION II  Nicoll 1-3

1:15PM-2:15PM  EDUCATIONAL SYMPOSIUM  Summit 1

HOW REAL-WORLD EVIDENCE (RWE) CAN ENABLE PHARMA TO PARTNER IN HEALTH CARE DELIVERY
Sponsored by IMS Health

2:30PM-3:30PM  EDUCATIONAL SYMPOSIUM  Summit 1

PRICING DEVELOPMENTS IN THE ASIA PACIFIC – DOES COMPARATOR-REFERENCED PRICING HAVE A FUTURE?
Sponsored by Optum

3:45PM-4:45PM  ISSUE PANELS – SESSION II

HEALTH POLICY DEVELOPMENT USING OUTCOMES RESEARCH ISSUES

IP6: HOW DO CULTURE, VALUES, AND INSTITUTIONAL CONTEXT SHAPE THE METHODS AND USE OF ECONOMIC EVALUATION? Room 324
Moderator: Michael Drummond, MCom, DPhil, Professor of Health Economics, Centre for Health Economics, University of York, Heslington, York, UK
Panelists: Takashi Fukuda, PhD, Director, National Institute of Public Health, Wako, Japan; Yen-Huei (Tony) Tarn, PhD, MS, Associate Professor, School of Pharmacy, Kaohsiung Medical University, Kaohsiung, Taiwan; Paul Scuffham, PhD, Professor of Health Economics, Population and Social Health Research, Griffith University, Gold Coast, Australia

IP7: THE ROLE OF HTA UNDER THE UNIVERSAL HEALTH COVERAGE SYSTEM: HOW WILL IT WORK FOR ASIA? Room 326
Moderator: Allen Yu-Hung Lai, MD, MSc, MPA, PhD, Principal of Health Economics & Outcomes Research, IMS Health, Singapore
Panelists: Bruno Rossi, BA, Advisor, Bayer Yakuhin, Ltd., Osaka, Japan; Bin Chia Wu, PhD, Head, Economic Modeling, Ministry of Health Singapore, Singapore; W. Ken Redekop, PhD, MPH, Associate Professor, Institute for Medical Technology Assessment, Erasmus University Rotterdam, Rotterdam, The Netherlands

IP8: COULD MULTIPLE-CRITERIA DECISION ANALYSIS HELP DECISION MAKERS FOR REIMBURSEMENT OF IMMUNO-ONCOLOGY MEDICINES? Room 300-301
Moderator: Tan Seng Chuen, BPharm (Hons), MSc, Director, Market Access (Oncology), MSD, Singapore
Panelists: Daniel Chan, DrMBBS, Specialist in Medical Oncology, Singapore Oncology Consultants, Singapore; James Pellissier, PhD, Executive Director, Predictive & Economic Modeling, Merck Research Laboratories, Merck & Co., Inc., North Wales, PA, USA; Eui-Kyung Lee, PhD, Professor, Pharmaceutical Policy & Outcomes Research, School of Pharmacy, Sungkyunkwan University, Suwon, South Korea
IP9: PREDICTING FUTURE EVIDENCE: RISK-SHARING AGREEMENTS, MANAGED ENTRY SCHEMES, OR SOMETHING ELSE?  
**Summit 1**  
*Moderator*: William Montgomery, BPharm, Principal Research Scientist, Eli Lilly Australia Pty Ltd., Sydney, Australia  
*Panelists*: Andrew Mitchell, MMedsC, Strategic Adviser, Evaluation, Department of Health, Canberra, Australia; Rosalie Viney, PhD, Professor, Centre for Health Economics Research and Evaluation, University of Technology Sydney, Sydney, Australia; David Grainger, BSc, Director, Global Public Policy, Eli Lilly and Company, Sydney, Australia

**Clinical Outcomes Research Issues**

IP10: CLINICAL TRIALS FOR REGULATORY AND REIMBURSEMENT NEEDS: DOES ONE SHOE FIT ALL?  
*Room 325*  
*Moderator*: Hansoo Kim, MSc, Market Access Manager, Bristol-Myers Squibb Australia, Mulgrave, Australia  
*Panelists*: Danny Liew, PhD, Professor, Monash University, Melbourne, Australia; Stephen Goodall, PhD, MSc, Associate Professor, Centre for Health Economics Research and Evaluation, University of Technology Sydney, Sydney, Australia; Alissa Brown, MPH, Head of Market Access, Sanofi Australia, Macquarie Park, Australia

4:45PM-5:00PM  
**BREAK, EXHIBITS & RESEARCH POSTER PRESENTATIONS VIEWING – SESSION II Nicoll 1-3**  
(See pages 46-47 for Research Poster Presentation information)

5:00PM-6:00PM  
**WORKSHOPS – SESSION II**  
(See pages 60-61 for Workshop descriptions)

**Health Policy Development using Outcomes Research**

W6: ADAPTING PHARMACOECONOMIC DATA OF ANALYSES FROM OVERSEAS FOR USE IN DECISIONS IN MIDDLE INCOME COUNTRIES  
*Room 326*  
**Discussion Leaders**: Michael Drummond, MCom, DPhil, Professor of Health Economics, Centre for Health Economics, University of York, Heslington, York, UK; Bong-Min Yang, PhD, Professor, School of Public Health and Executive Director, Institute of Health and Environment, Seoul National University, Seoul, South Korea; Jasmine Pwu, PhD, Senior Investigator, Health Data Research Centre, National Taiwan University, Taipei, Taiwan; Nathorn Chaiyakunapruk, PhD, Professor of Health Economics, School of Pharmacy, Monash University Malaysia, Selangor, Malaysia

**Use of Real World Data**

W7: SHARING REAL-WORLD DATA EXPERIENCES OF USING TAIWAN'S NATIONAL HEALTH INSURANCE RESEARCH DATABASE  
*Room 300-301*  
**Discussion Leaders**: Ming-Hui Tai, MS, MHPA, PhD, Lead Outcomes Research Analyst, Pharmerit International, Bethesda, MD, USA; Chung-Hsuen Wu, PhD, Assistant Professor, Department of Clinical Pharmacy, Taipei Medical University, Taipei City, Taiwan; Fang-Ju Lin, PhD, Assistant Professor, Graduate Institute of Clinical Pharmacy, National Taiwan University, Taipei, Taiwan; Yu-Chen Yeh, MS, RPh, Senior Clinical Outcomes Scientist, Pharmerit International, Newton, MA, USA

**Economic Outcomes Research**

W8: APPLIED EARLY ECONOMIC MODELLING FOR COMBINATION THERAPIES IN ONCOLOGY: NOVEL VALUE-BASED PRICING APPROACH  
**Summit 1**  
**Discussion Leaders**: Cyrus A. Chowdhury, CEO & Managing Director, CBPartners, New York, NY, USA; Meghan Gallagher, Director, Global Health Economics and Outcomes Research, Oncology, Sanofi, Cambridge, MA, USA; Kateryna Onishchenko, PhD, Health Economist, CBPartners, London, UK

**Patient-Reported Outcomes & Patient Preference Research**

W9: INCORPORATING FINANCIAL INCENTIVES AND PATIENT PREFERENCES IN THE DESIGN OF CANCER SCREENING PROGRAMMES  
*Room 324*  
**Discussion Leaders**: W. Ken Redekop, PhD, MPH, Associate Professor, Institute for Medical Technology Assessment, Erasmus University Rotterdam, Rotterdam, The Netherlands; Hwee Lin Wee, PhD, Assistant Professor, Pharmacy, National University of Singapore, Singapore; Joanne Yoong, PhD, Senior Economist, University of Southern California and Associate Professor, National University of Singapore, Singapore

W10: TAKING PATIENT PREFERENCES INTO CONSIDERATION IN THE PATIENT-CENTERED HEALTH CARE SYSTEM  
*Room 325*  
**Discussion Leaders**: Jianwei Xuan, MD, PhD, Director, Health Economic Research Institute, Sun Yat-sen University, Guangzhou, China; Boxiong Tang, MD, PhD, Senior Director, Global Health Economics and Outcomes Research, Teva Pharmaceutical, Frazer, PA, USA; Yi Han, PhD, MBA, Executive Vice President, Market Access and HEOR, Cello Health, Yardley, PA, USA
TUESDAY, 6 SEPTEMBER

7:15AM-8:15AM EDUCATIONAL SYMPOSIUM Summit 1
(See page 69 for Symposium description)
HEALTH ECONOMIC ASSESSMENT ON TARGET THERAPY ON COLORECTAL CANCER TREATMENT
Sponsored by Merck Serono

8:30AM-9:30AM ISPOR FORUMS – SESSION I
(See pages 64-65 for Forum descriptions)
F1: HEALTH TECHNOLOGY ASSESSMENTS IN UNIVERSAL HEALTH COVERAGE Room 300-301
Presented by the ISPOR Asia Consortium Health Technology Assessment Agencies, Health Care Policymakers & Payers Committee
Moderator: Jitendar Sharma, PhD, CEO, Andhra Med Tech Zone (AMTZ) and Head, Division of Healthcare Technology & Director, WHO Collaborating Center for Priority Medical Devices, National Health Systems Resource Centre, Ministry of Health & Family Welfare, New Delhi, India
Speakers: Kun Zhao, MD, PhD, Professor & Director, Division of Health Policy Evaluation and Technology Assessment, China National Health Development Research Center, National Health and Family Planning Commission (NHFPC), Beijing, China; Joanne Yoong, PhD, Senior Economist, University of Southern California and Associate Professor, National University of Singapore, Singapore; Surachat Ngorsuraches, PhD, Associate Professor, College of Pharmacy, South Dakota State University, Brookings, South Dakota, USA and Former Associate Professor, Faculty of Pharmaceutical Sciences, Prince of Songkla University, Songkhla, Thailand
F2: INTEGRATING EVIDENCE-BASED AND COST-EFFECTIVE COMPLEMENTARY AND ALTERNATIVE MEDICINE INTO THE HEALTH CARE SYSTEMS IN ASIA Room 324
Presented by the ISPOR Asia Consortium Complementary and Alternative Medicine (CAM) Working Group
Moderator: Namkwen Kim, KMD, MPH, PhD, Professor, Pusan National University School of Korean Medicine and Director, Monitoring Center for Korean Medicine and Western Collaboration, Pusan National University Korean Medicine, Yangsan, South Korea
Speakers: Ming Hu, PhD, Professor & Director, Pharmaceutical Policy & Pharmacoconomics Research Center, West China School of Pharmacy, Sichuan University, Chengdu, China; Hwee Lin Koh, PhD, Associate Professor, Department of Pharmacy, National University of Singapore, Singapore; Wendy Wong, PhD, Assistant Professor, Hong Kong Institute of Integrative Medicine, Assistant Professor, School of Chinese Medicine and Deputy Chief Chinese Medicine Practitioner, Integrative Medical Centre, Faculty of Medicine, The Chinese University of Hong Kong, Hong Kong, China; Donghyo Lee, DKM, PhD, Assistant Professor, College of Korean Medicine, Woosuk University, Jeonju, Jeonbuk, South Korea
F3: BIG DATA IN ASIA-PACIFIC – A VALUABLE RESOURCE FOR BETTER HEALTH CARE DECISIONS: EXPERIENCES AND LESSONS LEARNED IN AUSTRALIA, JAPAN, SINGAPORE, SOUTH KOREA, AND TAIWAN Summit 1
Presented by the ISPOR Asia Consortium
Moderator: Libby Roughead, PhD, Director & Research Professor, Quality Use of Medicines and Pharmacy Research Centre, University of South Australia, Adelaide, SA, Australia
Speakers: Bruce Crawford, MA, MPH, Senior Principal, Real-World Evidence Solutions, Japan & APAC, IMS Japan K.K., Minato-ku, Tokyo, Japan; Hwee Lin Wee, PhD, Assistant Professor, Pharmacy, National University of Singapore, Singapore; Seungjin Bae, ScD, Associate Professor, Pharmacoeconomics and Outcomes Research, Ewha Women's University, Seoul, South Korea; Chee-Jen Chang, PhD, MS, Director, Clinical Informatics and Medical Statistics Research Center and Professor, Graduate Institute of Clinical Medical Sciences, Chang Gung University, TaoYuan, Taiwan

TUESDAY, 6 SEPTEMBER

7:15AM-8:15AM EDUCATIONAL SYMPOSIUM Summit 1
(See page 69 for Symposium description)
HEALTH ECONOMIC ASSESSMENT ON TARGET THERAPY ON COLORECTAL CANCER TREATMENT
Sponsored by Merck Serono

8:30AM-9:30AM ISPOR FORUMS – SESSION I
(See pages 64-65 for Forum descriptions)
F1: HEALTH TECHNOLOGY ASSESSMENTS IN UNIVERSAL HEALTH COVERAGE Room 300-301
Presented by the ISPOR Asia Consortium Health Technology Assessment Agencies, Health Care Policymakers & Payers Committee
Moderator: Jitendar Sharma, PhD, CEO, Andhra Med Tech Zone (AMTZ) and Head, Division of Healthcare Technology & Director, WHO Collaborating Center for Priority Medical Devices, National Health Systems Resource Centre, Ministry of Health & Family Welfare, New Delhi, India
Speakers: Kun Zhao, MD, PhD, Professor & Director, Division of Health Policy Evaluation and Technology Assessment, China National Health Development Research Center, National Health and Family Planning Commission (NHFPC), Beijing, China; Joanne Yoong, PhD, Senior Economist, University of Southern California and Associate Professor, National University of Singapore, Singapore; Surachat Ngorsuraches, PhD, Associate Professor, College of Pharmacy, South Dakota State University, Brookings, South Dakota, USA and Former Associate Professor, Faculty of Pharmaceutical Sciences, Prince of Songkla University, Songkhla, Thailand
F2: INTEGRATING EVIDENCE-BASED AND COST-EFFECTIVE COMPLEMENTARY AND ALTERNATIVE MEDICINE INTO THE HEALTH CARE SYSTEMS IN ASIA Room 324
Presented by the ISPOR Asia Consortium Complementary and Alternative Medicine (CAM) Working Group
Moderator: Namkwen Kim, KMD, MPH, PhD, Professor, Pusan National University School of Korean Medicine and Director, Monitoring Center for Korean Medicine and Western Collaboration, Pusan National University Korean Medicine, Yangsan, South Korea
Speakers: Ming Hu, PhD, Professor & Director, Pharmaceutical Policy & Pharmacoconomics Research Center, West China School of Pharmacy, Sichuan University, Chengdu, China; Hwee Ling Koh, PhD, Associate Professor, Department of Pharmacy, National University of Singapore, Singapore; Wendy Wong, PhD, Assistant Professor, Hong Kong Institute of Integrative Medicine, Assistant Professor, School of Chinese Medicine and Deputy Chief Chinese Medicine Practitioner, Integrative Medical Centre, Faculty of Medicine, The Chinese University of Hong Kong, Hong Kong, China; Donghyo Lee, DKM, PhD, Assistant Professor, College of Korean Medicine, Woosuk University, Jeonju, Jeonbuk, South Korea
F3: BIG DATA IN ASIA-PACIFIC – A VALUABLE RESOURCE FOR BETTER HEALTH CARE DECISIONS: EXPERIENCES AND LESSONS LEARNED IN AUSTRALIA, JAPAN, SINGAPORE, SOUTH KOREA, AND TAIWAN Summit 1
Presented by the ISPOR Asia Consortium
Moderator: Libby Roughead, PhD, Director & Research Professor, Quality Use of Medicines and Pharmacy Research Centre, University of South Australia, Adelaide, SA, Australia
Speakers: Bruce Crawford, MA, MPH, Senior Principal, Real-World Evidence Solutions, Japan & APAC, IMS Japan K.K., Minato-ku, Tokyo, Japan; Hwee Lin Wee, PhD, Assistant Professor, Pharmacy, National University of Singapore, Singapore; Seungjin Bae, ScD, Associate Professor, Pharmacoeconomics and Outcomes Research, Ewha Women's University, Seoul, South Korea; Chee-Jen Chang, PhD, MS, Director, Clinical Informatics and Medical Statistics Research Center and Professor, Graduate Institute of Clinical Medical Sciences, Chang Gung University, TaoYuan, Taiwan
PROGRAM & SCHEDULE OF EVENTS: TUESDAY, 6 SEPTEMBER

F4: VALUE IN HEALTH REGIONAL ISSUES: GUIDANCE ON WRITING GOOD SCIENTIFIC MANUSCRIPTS FOR PUBLICATION
Room 326
Presented by the Value in Health Regional Issues (ViHRI) Editorial Board (Asia)
Moderator: Bong-Min Yang, PhD, Professor, School of Public Health and Executive Director, Institute of Health and Environment, Seoul National University, Seoul, South Korea
Speakers: Nathorn Chaiyakunapruk, PharmD, PhD, Professor of Health Economics, School of Pharmacy, Monash University Malaysia, Selangor, Malaysia; Jianfei (Jeff) Guo, PhD, RPh, Professor, University of Cincinnati Health Academic Center, Cincinnati, OH, USA; Kenneth K. C. Lee, MPhil, PhD, Professor, School of Pharmacy, Monash University Malaysia, Subang Jaya, Malaysia; Shu Chuen Li, PhD, Professor, School of Biomedical Sciences and Pharmacy, The University of Newcastle, Newcastle, Australia

F5: PHARMACOECONOMIC GUIDELINES IN CHINA, INDIA, INDONESIA, MALAYSIA, AND THAILAND Room 325
Presented by the ISPOR Regional Chapters in China, India, Indonesia, and Malaysia
Moderator: Jiuhong Wu, PhD, PharmD, Professor, The 306th Hospital of PLA, Beijing, China
Speakers: Mahendra Kumar Rai, MPharm, Group Leader & SME, HEOR & Real-World Evidence, Market Access & HEOR, Tata Consultancy Services, Mumbai, India; Amad Fuad Afadh al, PhD, Director, Center for Socio-Economic Studies in Pharmacy, Cirendeu, Indonesia; Syed Aljunid, MD, PhD, Professor, International Casemix and Clinical Coding Centre, Faculty of Medicine, National University of Malaysia, Kuala Lumpur, Malaysia; Sitaporn Youngkong, PhD, Lecturer, Department of Pharmacy, Faculty of Pharmacy, Mahidol University, Bangkok, Thailand

9:45AM-10:45AM ISSUE PANELS – SESSION III

HEALTH POLICY DEVELOPMENT USING OUTCOMES RESEARCH ISSUES

IP11: HOW CAN RISK-SHARING AGREEMENTS IN KOREA BE IMPROVED? Room 300-301
Moderator: Jae-Hyun Lee, PhD, MS, Professor, School of Pharmacy, SKKU University and Korea Regulatory Affairs Professionals Center, Seoul, South Korea
Panelists: Hyelin Kim, PhD, Professor, Department of Pharmaceutical Sciences, Sahmyook University, Seoul, South Korea; David Grainger, BSc, Director, Global Public Policy, Eli Lilly and Company, Sydney, Australia; Kevin Haninger, PhD, Associate Vice President, International Health Policy, PhRMA, Washington, DC, USA; Nam-Sun Choi, Deputy Manager, Department of Insurance Benefits, National Health Insurance Service (NHIS), Wonju, Korea

IP12: HOW CAN WE EMPOWER THE PATIENT VOICE IN HEALTH CARE DECISION MAKING AT THE POLICY LEVEL? Room 324
Moderator: Joerg Klug, MA, MBA, Director, Market Access, Janssen Asia Pacific, Kowloon, Hong Kong
Panelists: Eui-Kyung Lee, PhD, Professor, Pharmaceutical Policy & Outcomes Research, School of Pharmacy, Sungkyunkwan University, Suwon, South Korea; Chih-Liang Yang, PhD, President, TAPO (Taiwan Alliance of Patients Organizations) and Former Minister of Health, Republic of China, Taiwan; Richard Vines, Chairman, Rare Cancers Australia, Bowral, Australia

IP13: WHAT IS THE OPTIMAL APPROACH TO CONFIGURING THE BURDEN OF PROOF DURING THE COST-CONTAINMENT ERA? Summit 1
Moderator: Christoph Glaetzer, Dipl. Kfm, Vice President, Strategic Marketing and Market Access, Janssen Asia Pacific, Singapore
Panelists: Bor-Sheng Ko, MD, PhD, Assistant Professor, BMT Unit and Hematology Division, Department of Internal Medicine, National Taiwan University Hospital, Taipei, Taiwan; Jeonghoon Ahn, PhD, Associate Professor, Department of Health Convergence, Ewha Woman University, Seoul, South Korea

IP14: HOW SHOULD WE ADDRESS THE SPECIFICITIES OF EVALUATING MEDICAL DEVICES? Room 326
Moderator: Allen Yu-Hung Lai, MD, MSc, MPA, PhD, Principal of Health Economics & Outcomes Research, IMS Health, Singapore
Panelists: Chunyue Yin, MD, PhD, MBA, Manager, Health Economics & Market Access, Johnson & Johnson Medical Asia-Pacific, Singapore; Laurent Metz, MD, PhD, Director, Health Economics Market Access & Clinical Research, MD&D Asia Pacific, Johnson & Johnson Medical Asia Pacific, Singapore

ECONOMIC OUTCOMES RESEARCH ISSUES

IP15: SHOULD PRODUCTIVITY LOSSES DUE TO ILLNESS BE CONSIDERED IN HEALTH ECONOMIC EVALUATIONS? Room 325
Moderator: Craig Brooks-Rooney, MA, Head, Asia-Pacific, Costello Medical Singapore Pte Ltd., Singapore
Panelists: Dominique Milea, PharmD, PhD, Director, Health Economics & Epidemiology Asia, Lundbeck Singapore Pte. Ltd., Singapore; W. Ken Redekop, PhD, MPH, Associate Professor, Institute for Medical Technology Assessment, Erasmus University Rotterdam, Rotterdam, The Netherlands; Hwee Lin Wee, PhD, Assistant Professor, Pharmacy, National University of Singapore, Singapore
PROGRAM & SCHEDULE OF EVENTS: TUESDAY, 6 SEPTEMBER

10:45AM-11:00AM BREAK, EXHIBITS & RESEARCH POSTER PRESENTATIONS VIEWING – III Nicoll 1-3

(See pages 46-47 for Research Poster Presentation information)

11:00AM-12:45PM WELCOME & THIRD PLENARY SESSION Summit 1

WELCOME FROM ISPOR ASIA CONSORTIUM EXECUTIVE COMMITTEE CHAIR

Isao Kamae, MD, DrPH, 2016-2018 ISPOR Asia Consortium Executive Committee Chair and Professor of Health Technology Assessment and Public Policy, Graduate School of Public Policy, The University of Tokyo, Tokyo, Japan

ISPOR DISTINGUISHED SERVICE AWARDS

(See page 76 for biographical information)

Presented by: Lou Garrison, PhD, 2016-2017 ISPOR President

AWARDEES:

Wai Keung Chui, PhD, ISPOR 7th Asia-Pacific Conference Program Committee Co-Chair, and Associate Professor, Department of Pharmacy, National University of Singapore, Singapore

Syed Aljunid, MD, PhD, ISPOR 7th Asia-Pacific Conference Program Committee Co-Chair, and Professor, Health Economics and Public Health Medicine & Head, International Centre for Casemix and Clinical Coding, Faculty of Medicine, National University of Malaysia, Kuala Lumpur, Malaysia

Ahmad Fuad Afdhal, PhD, ISPOR 7th Asia-Pacific Conference Program Committee Co-Chair, and Director, Center for Socio-Economic Studies in Pharmacy, Jakarta, Indonesia

Kun Zhao, MD, PhD, ISPOR Asia Consortium HTA.netAsia 2014-2016 Chair, and Professor & Director, Division of Health Policy Evaluation and Technology Assessment, China National Health Development Research Center, National Health and Family Planning Commission (NHFPC), Beijing, China

ISPOR VALUE IN HEALTH REGIONAL ISSUES (ASIA) EXCELLENT ARTICLE AWARD

(See page 80 for biographical information)

Presented by: Bong-Min Yang, PhD, ISPOR Value in Health Regional Issues Co-Editor-in-Chief (Asia)

AWARDEE: Fei-Li Zhao, PhD, Senior Research Fellow, Centre for Health Economics Research and Evaluation (CHERE), University of Technology Sydney, Sydney, Australia

THIRD PLENARY SESSION: UNIVERSAL HEALTH COVERAGE – THE AFFORDABLE DREAM IN ASEAN: EXPERIENCES AND LESSONS LEARNED

(See page 76-80 for biographical information)

The vast diversity in the historical, socio-economic, cultural, and political spheres has contributed to highly divergent health statuses and health systems across countries of the Association of Southeast Asian Nations (ASEAN). With increasing educational levels and affluence, ageing populations, availability of new health technology, and growing consciousness of human rights in this region, the demand for universal health coverage (UHC) of affordable and good quality health services is increasing. While a few countries in ASEAN, such as Singapore and Thailand, have already achieved UHC, others are moving towards it. This session will discuss the current situation, challenges, and opportunities of UHC, with the aim of sharing experiences and supporting each other in the joint pursuit of UHC in ASEAN.

Moderator: Ahmad Fuad Afdhal, PhD, Director, Center for Socio-Economic Studies in Pharmacy, Jakarta, Indonesia

Speakers:

Netnapis Suchonwanich, Former Deputy Secretary General, National Health Security Office (NHSO), Bangkok, Thailand

Syed Aljunid, MD, PhD, Professor, Health Economics and Public Health Medicine & Head, International Centre for Casemix and Clinical Coding, Faculty of Medicine, National University of Malaysia, Kuala Lumpur, Malaysia

Kun Zhao, MD, PhD, Professor & Director, Division of Health Policy Evaluation and Technology Assessment, China National Health Development Research Center, National Health and Family Planning Commission (NHFPC), Beijing, China

Graham Harrison, PhD, World Health Organization Representative to Malaysia, Brunei Darussalam and Singapore, World Health Organization (WHO), Kuala Lumpur, Malaysia
ISPOR 7th Asia-Pacific Conference

3-6 September 2016 • Suntec Singapore Convention & Exhibition Center, Singapore

Program & Schedule of Events: Tuesday, 6 September

12:45PM-1:00PM  Research Awards Presentation and Conference Remarks Summit 1

Moderator: Isao Kamae, MD, DrPH, 2016-2018 ISPOR Asia Consortium Executive Committee Chair and Professor of Health Technology Assessment and Public Policy, Graduate School of Public Policy, The University of Tokyo, Tokyo, Japan

ISPOR Best Podium Presentation Awards

Presented by: Kenneth KC Lee, JP, MPhil, PhD Reg Pharm (HK), Professor of Pharmacy & Health, School of Pharmacy, Monash University, Selangor, Malaysia

ISPOR Best Poster Presentation Awards

Presented by: Xin Sun, PhD, Professor, Chinese Evidence-Based Medicine Center, West China Hospital, Sichuan University, Chengdu, China

ISPOR 8th Asia-Pacific Conference Announcement

Takashi Fukuda, PhD, Director, Department of Health and Welfare Services, National Institute of Public Health, Saitama, Japan

ISPOR 7th Asia-Pacific Conference Remarks

Speakers: Wai Keung Chui, PhD, PhD, Associate Professor, Department of Pharmacy, National University of Singapore, Singapore
Syed Aljunid, MD, PhD, Professor, Health Economics and Public Health Medicine & Head, International Centre for Casemix and Clinical Coding, Faculty of Medicine, National University of Malaysia, Kuala Lumpur, Malaysia
Ahmad Fuad Afdhal, PhD, Director, Center for Socio-Economic Studies in Pharmacy, Jakarta, Indonesia

1:00PM-4:00PM  Lunch, Exhibits & Research Poster Presentations Viewing – Session III Nicoll 1-3

(See pages 46-47 for Research Poster Presentation information)

1:30PM-2:30PM  Educational Symposium Summit 1

(See page 69 for Symposium description)
Health Technology Assessment Policy Surrounding Biologic Treatments in Immunology: Challenges and Opportunities
Sponsored by Eli Lilly & Company

2:00PM-3:00PM  Research Poster Author Discussion Hour – Session III Nicoll 1-3

(See pages 46-47 for Research Poster Presentation information)

2:45PM-3:45PM  Educational Symposium Summit 1

(See page 69 for Symposium description)
The Role of HTA in Health Care Decision Making
Sponsored by MSD

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WORKSHOPS – SESSION III

(See pages 62-63 for Workshop descriptions)

HEALTH POLICY DEVELOPMENT USING OUTCOMES RESEARCH

W11: MARKET ACCESS OF ORPHAN DRUGS IN ASIA: RECENT DEVELOPMENTS AND IMPLICATIONS
Discussion Leaders: Xia Chen, PhD, Senior Consultant, Market Access, Pope Woodhead & Associates, Cambridgeshire, UK; Francois Lucas, PhD, Principal Consultant, Pope Woodhead & Associates Ltd, St. Ives, UK; Shanlian Hu, MS, MD, Director, Shanghai Health Development Research Center, Shanghai, China; Oswald Bentinck, LLM, MSc, Regional Market Access Lead, JAPAC & Aus/NZ, Shire, Zug, Switzerland

USE OF REAL WORLD DATA

W12: INTRODUCING A NOVEL CONCEPT TO OBSERVATIONAL RESEARCH IN THE ASIA-PACIFIC REGION: ENRICHED REAL-WORLD DATA STUDIES
Discussion Leaders: Laura Garcia Alvarez, PhD, Engagement Manager, Real-World Evidence Solutions, IMS Health, Barcelona, Spain; Joshua Hiller, MBA, Senior Principal, Real-World Evidence Solutions, IMS Health, London, UK; Joanne Young, PhD, Senior Economist, University of Southern California and Associate Professor, National University of Singapore (NUS), Singapore; Ong Leong Seng, MSc, Chief Architect & Group Director, Architecture & Innovation, Integrated Health Information System, Ministry of Health Holdings, Singapore

Discussion Leaders: Michelle Bulliard, RN, Vice President & Global Head, Real World Evidence Strategy, Quintiles, St Prex, Switzerland; Tiphaine Courbet, MA, Associate Director, Clinical Project Management, Regional Strategy Lead for APAC, Real World and Late Phase Research, Quintiles, Chatswood, Australia

ECONOMIC OUTCOMES RESEARCH

W14: DATA TRANSFERABILITY ACROSS ASIAN MARKETS: RESEARCH NEEDS FROM THE DECISION-MAKER AND INDUSTRY PERSPECTIVES
Discussion Leaders: Joe Caputo, BSc, Associate Director, ESSEC Institute of Health Economics and Management, ESSEC Asia-Pacific, Singapore; Rob Thwaites, MA, Senior Director, Takeda, London, UK

PATIENT-REPORTED OUTCOMES & PATIENT PREFERENCE RESEARCH

W15: BEYOND PATIENT COMPLIANCE AND ADHERENCE TO TREATMENT
Discussion Leaders: Yi Han, PhD, MBA, Executive Vice President, Market Access and HEOR, Cello Health, Yardley, PA, USA; Hengjin Dong, PhD, Executive Director, Center for Health Policy Studies, School of Public Health, Zhejiang University, Hangzhou, China; Bruce C.M. Wang, PhD, Chief Executive Officer, Elysia Group Ltd, Taipei, Taiwan; Boxiong Tang, MD, PhD, Senior Director, Global Health Economics and Outcomes Research, Teva Pharmaceutical, Frazer, PA, USA
ISPOR 7th ASIA-PACIFIC CONFERENCE

3-6 SEPTEMBER 2016
SUNTEC SINGAPORE CONVENTION
& EXHIBITION CENTER
SINGAPORE

RESEARCH POSTER PRESENTATIONS
AND EXHIBIT PROGRAM
OVER 590 POSTER PRESENTATIONS WILL BE ON DISPLAY DURING THE CONFERENCE IN Nicoll 1-3 on Level 3.

- The poster hall is now organized in rows (A-T) and each poster board is numbered accordingly (e.g. A1, H7).
- Each poster presentation has been assigned a specific numbered board location, which is shown next to the poster presentations title. Please note that this is different than the poster code (e.g. PCN4, PRM12), which was assigned to each poster presentation upon acceptance.
- Poster presentation titles and authors, as well as the numbered board location, are available on the myISPORSingapore.zerista.com web platform and ISPOR Singapore mobile app. This information is also available as a PDF on the ISPOR website and as a handout at the Poster Help Desk (please note quantities are limited).
- The abstracts and Author Index will appear in the November issue of Value in Health (Volume 19 Issue 7). This issue of Value in Health will be available to ISPOR members and 7th Asia-Pacific Conference attendees online in October 2016 at http://www.ispor.org/valueinhealth_index.asp. Abstracts are also currently available for viewing on the myISPORSingapore.zerista.com web platform, ISPOR Singapore mobile app, and on the ISPOR website.
- Poster board numbering is available on the floor plan on page 47 and row locations (by topic) are available in the table below.

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<th>POSTER PRESENTATION SESSIONS</th>
<th>POSTER LOCATION</th>
<th>POSTER DISPLAY HOURS</th>
<th>AUTHOR DISCUSSION HOUR*</th>
<th>PRESENTER SET UP TIME</th>
<th>PRESENTER DISMANTLE TIME**</th>
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<tr>
<td>PHP: HEALTH CARE USE &amp; POLICY STUDIES</td>
<td>ROWS A-N, ROWS N-O</td>
<td>12:30PM-7:30PM</td>
<td>6:30PM-7:30PM</td>
<td>12:15PM-12:30PM</td>
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<tr>
<td>PGI: GASTROINTESTINAL DISORDERS</td>
<td>ROWS O-R</td>
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<tr>
<td>PMH: MENTAL HEALTH</td>
<td>ROWS R-S, ROWS S-T</td>
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<tr>
<td>PSS: SENSORY SYSTEMS DISORDERS</td>
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<tr>
<td>PUK: URINARY/KIDNEY DISORDERS</td>
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<td><strong>SESSION II: MONDAY, 5 SEPTEMBER</strong></td>
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<tr>
<td>PRM: RESEARCH ON METHODS</td>
<td>ROWSA-E, ROWS E-H</td>
<td>8:30AM-7:30PM</td>
<td>6:30PM-7:30PM</td>
<td>8:15AM-8:30AM</td>
<td>7:30PM</td>
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<tr>
<td>PMID: MEDICAL DEVICES/DIAGNOSTICS</td>
<td>ROWS H-N</td>
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<tr>
<td>PCV: CARDIOVASCULAR DISORDERS</td>
<td>ROWS N-P</td>
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<td>PND: NEUROLOGICAL DISORDERS</td>
<td>ROWS P-R, ROWS R-T</td>
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<td>PRS: RESPIRATORY-RELATED DISORDERS</td>
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<td>PSY: SYSTEMIC DISORDERS/CONDITIONS</td>
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<td><strong>SESSION III: TUESDAY, 6 SEPTEMBER</strong></td>
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<tr>
<td>PCN: CANCER</td>
<td>ROWS A-F</td>
<td>8:30AM-3:00PM</td>
<td>2:00PM-3:00PM</td>
<td>8:15AM-8:30AM</td>
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<td>PDB: DIABETES/ENDOCRINE DISORDERS</td>
<td>ROWS G-K</td>
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<td>PIH: INDIVIDUAL’S HEALTH</td>
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<tr>
<td>PIN: INFECTION</td>
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<tr>
<td>PMS: MUSCULAR-SKELETAL DISORDERS</td>
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</table>

*Presenters are required to be at their posters during the Poster Author Discussion Hour.
**Posters that are not removed at the scheduled dismantle times will be discarded.
Looking for poster presentations online?

The ISPOR Scientific Presentations Database is a searchable database of nearly 36,500 research papers presented at ISPOR meetings since 1998. The database is searchable by disease, topic, meeting, key word and author. To access the database, go to www.ispor.org and click the purple “Scientific Presentations” tab.
EXHIBIT OVERVIEW

EXHIBITS VIEWING:

Exhibits will be on view in Nicoll 1-3 on Level 3
Sunday, 4 September: 12:30PM-7:30PM
Monday, 5 September: 8:30AM-7:30PM
Tuesday, 6 September: 8:30AM-4:00PM

SCHEDULE:

SUNDAY, 4 SEPTEMBER
12:30PM-7:30PM  Exhibits Viewing
3:15PM-3:45PM  Coffee Break
6:00PM-7:30PM  Exhibitors’ Reception
Reception Sponsored by Quintiles

TUESDAY, 6 SEPTEMBER
8:30AM-4:00PM  Exhibits Viewing
10:45AM-11:00AM  Coffee Break
1:00PM-4:00PM  Lunch

MONDAY, 5 SEPTEMBER
8:30AM-7:30PM  Exhibits Viewing
10:45AM-11:00AM  Coffee Break
12:45PM-3:45PM  Lunch
4:45PM-5:00PM  Coffee Break
6:00PM-7:30PM  Exhibitors’ Reception
Sponsored by Taylor & Francis

Exhibitor and Sponsor VIRTUAL BOOTHs

Attendees are encouraged to visit the Exhibitor and Sponsor VIRTUAL BOOTHs available on the ISPOR event website and in the mobile app/web platform. Virtual Booths offer attendees in one click more detailed information on a company – including contact information, collateral material, social media links, and web links to document and videos.

If you were not able to connect with an exhibitor onsite, you will have the opportunity to follow up with them during and after the event through their virtual booth and the mobile app.

Below is an example, “the ISPOR Student Network Virtual Booth”.

NEW for 2016
### Exhibit Floor Plan

#### Entrances

- **Lunch Buffet Mon & Tues**
- **Posters A-J**
- **Posters K-T**
- **Internet Station**

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<td>Kantar Health</td>
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<td>MarksMan Healthcare Solutions</td>
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<td>CREATCON MEDICAL ASSESSMENT INC.</td>
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<td>KEHTA, University of Glasgow</td>
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Value in Health Regional Issues, a peer-reviewed online journal of the International Society for Pharmacoeconomics and Outcomes Research (ISPOR), provides a forum for the advancement and dissemination of knowledge and research in pharmacoeconomics and the health-related outcomes of disease and treatment processes. The Editors welcome original contributions in health care policy analysis, outcomes research (clinical, economic, and patient-reported), empirical studies, methodological studies, and studies on the use of health care resources in the region.

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MANUSCRIPT SUBMISSION

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**REGIONAL ISSUES**

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HEALTH POLICY DEVELOPMENT USING OUTCOMES RESEARCH ISSUES

**IP1: SETTING BUDGET IMPACT ANALYSIS THRESHOLDS IN ASIA AND ABROAD: IS THRESHOLD TRANSPARENCY PRUDENT AND FOR WHOM? Summit 1**
Moderator: Piyameth Dilokthornsakul, PharmD, PhD, Center of Pharmaceutical Outcomes Research, Naresuan University, Muang, Phitsanulok, Thailand
Panelists: Jonathan D. Campbell, PhD, Assistant Professor, Center for Pharmaceutical Outcomes Research, University of Colorado Anschutz Medical Campus, Denver, CO, USA; Jeonghoon Ahn, PhD, Associate Professor, Department of Health Convergence, Ewha Womans University, Seoul, Korea; Nathorn Chaiyakunapruk, PharmD, PhD, Professor of Health Economics, School of Pharmacy, Monash University Malaysia, Selangor Darul Ehsan, Malaysia
**ISSUE:** Budget impact analysis (BIA) is widely used as a tool for health care policy decision making in conjunction with cost-effectiveness analysis worldwide. BIA guides policy makers related to the affordability of a particular intervention from a stated perspective and time horizon. However, there are no transparent or disclosed standard cut-off thresholds for affordability within Asian health technology assessment (HTA) bodies. In the US, a non-profit organization called Institution for Clinical and Economic Review (ICER) proposed a threshold for affordability as a part of their value framework. ICER estimates the threshold for affordability of medical interventions based on the number of anticipated new therapies approved in a given year as well as the annual increase in Gross Domestic Product plus one percent. To date, there are no known Asian recommendations related to the derivation of thresholds or revealing affordability thresholds for policy decision making.

**OVERVIEW:** Our issue panel will discuss and debate whether or not BIA thresholds should be empirically generated and whether or not Asian HTAs should render such thresholds explicit with other stakeholders. Dr. Dilokthornsakul will set the stage by describing the characteristics and aims of BIA. Dr. Campbell will introduce the ICER value framework and the pros and cons of this evidence-based BIA threshold approach using a US case example. Dr. Chaiyakunapruk will discuss how Asian countries (giving an example from Thailand and Malaysia) use BIA findings and the pros and cons of making a particular BIA threshold publicly stated. Dr. Ahn will introduce the Korean system and how BIA is used in the decision making in Korea.

**IP2: GROWING DEMANDS FOR HTA IN ASIA: HOW CAN PUBLIC-PRIVATE-ACADEMIC PARTNERSHIPS BE STRENGTHENED? Room 300-301**
Moderator: Isao Kamae, MD, DrPH, Professor of Health Technology Assessment and Public Policy, Graduate School of Public Policy, The University of Tokyo, Tokyo, Japan
Panelists: Allen Yu-Hung Lai, MD, MSc, MPA, PhD, Principal of Health Economics & Outcomes Research, IMS Health, Singapore; Akio Onishi, PhD, Professor, Graduate School of Public Policy, Tokyo, Japan; Jörg Mahlich, PhD, Health Economics, Janssen Pharmaceuticals KK, Tokyo, Japan
**ISSUE:** Growing demands for health technology assessments (HTA) in Asia: How can public-private-academic partnerships be strengthened?

**OVERVIEW:** Asia-Pacific regions recently confront growing demands for the HTA disciplines. However, the public, private, and academic partnerships (PPAP) are still not matured in the regions, especially in terms of data sharing and capacity building for HTA disciplines. Therefore, although the need for a bilateral partnership between public and private sectors (PPP) is well recognized in western countries, a triilateral relation of PPAP beyond PPP must be strengthened in the Asia-Pacific regions. To address those issues, this proposed Panel aims at presenting the experience of international HTA experts who had multifaceted partnerships established at their personal level between public, private and academic sectors in the world such as Japan, Singapore, Taiwan, China, US, and Germany. In addition, based on the lessons learned from the panelists, extensive discussions try to explore the future PPAP model that is recommended to comply with local conditions in the regions.

**IP3: JOINT HTA: THE NEXT STEP FOR THE ASEAN ECONOMIC COMMUNITY? Room 325**
Moderator: Gengshi Chen, MSci, Senior Analyst, Costello Medical Singapore Pte Ltd, Singapore
Panelists: Surachat Ngorsuraches, PhD, Associate Professor, Department of Pharmacy Practice, College of Pharmacy, South Dakota State University, Brookings, SD, USA; W. Ken Redekop, PhD, MPH, Associate Professor, Institute for Medical Technology Assessment, Erasmus University Rotterdam, Rotterdam, The Netherlands
**ISSUE:** Application of health technology assessments (HTA) to support resource allocation decisions can improve efficiency of health care systems. However, most of the countries in ASEAN currently have limited human and financial resources for full-scale HTA implementation.
**OVERVIEW:** One solution for overcoming the low availability of HTA expertise in ASEAN could be to establish a joint HTA body, which could provide support to individual countries, akin to EUnetHTA in Europe. This issue panel will discuss the feasibility, opportunities and challenges for a joint HTA body in ASEAN. A number of initiatives have already been established in Asia,
with the objective of promoting the development of HTA capacity and collaboration in HTA activities between member states, including the HTAisLink network, and the Asia Pacific Regional Capacity Building for HTA (ARCH) initiative. Given the comparable levels of economic development in many of the ASEAN member states, a joint HTA body could be considered in order to concentrate HTA capacity and accelerate evidence development, whilst reducing duplicative efforts and improving the overall efficiency of HTA. A similar rationale led to the establishment of EUnetHTA, which has provided a platform for collaboration across member states and speed-up decision making in countries with less well-established national HTA processes. However, the diversity of healthcare systems, legal frameworks, and existing HTA capacity in ASEAN, may limit the success of such an undertaking, as well as delay HTA capacity building within individual countries. Other concerns associated with joint HTA initiatives include encroachment upon national autonomy in decision making, delays due to need for national adaptation of joint HTA evidence, quality of HTA evidence developed, generalisability of joint HTA evidence to national settings, and willingness to contribute to the joint HTA effort. The panelists will present their view points from different perspectives, following which the audience will be invited to participate in the debate.

ECONOMIC OUTCOMES RESEARCH ISSUES

IP4: RISKY BUSINESS: DECISION MAKING IN HEALTH CARE WITH ECONOMIC MODELLING UNCERTAINTY Room 324
Moderator: Paul Scuffham, PhD, Professor of Health Economics, Population and Social Health Research, Griffith University, Gold Coast, Australia
Panelists: Hansoo Kim, MStat, Market Access Manager, Bristol-Myers Squibb Australia, Mulgrave, Australia; Stephen Goodall, PhD, MSc, Associate Professor, Centre for Health Economics Research and Evaluation, University of Technology Sydney, Sydney, Australia; Rosalie Vines, PhD, Professor, Centre for Health Economics Research and Evaluation, University of Technology Sydney, Sydney, Australia
ISSUE: How to deal with modelling uncertainty in economic evaluations for health technology assessments. Uncertainty is one of the main challenges facing health care decision makers when assessing economic modelling. Unfortunately problems in the real world often fall outside of the theoretical text books and so modellers try to deal with these in practical ways. The implications of uncertainty are that decision makers may make a “wrong” decision that if they had more definitive information their decision may be different. For example, drugs being assessed for government reimbursements that have a positive mean effect but high uncertainty may not be subsidised leading to some patients missing out on effective treatment.
OVERVIEW: This panel will introduce the problems with uncertainty in economic data and how this impacts on decision making. The practical ways of dealing with uncertainty will then be discussed. Two of panellists will represent the specialist fields of health economic modelling and statistics. Hansoo Kim will discuss statistical uncertainty, including stochastic uncertainty and heterogeneity. Stephen Goodall will discuss structural and parameter uncertainty in economic modelling. The third panellist is the chair of the economic subcommittee (ESC) of the Australian Pharmaceutical Benefits Advisory Committee (PBAC) and is therefore well placed in putting it into a decision making context. Plenty of opportunity will be given to the audience for questions to the panel, sharing of local experiences and discussion.

PATIENT-REPORTED OUTCOMES & PATIENT PREFERENCE RESEARCH ISSUES

IP5: ESTIMATING COUNTRY-SPECIFIC EQ-5D-5L VALUE SETS USING A HYBRID REGRESSION MODEL: IS IT A GOOD IDEA FOR ASIA? Room 326
Moderator: Nan Luo, PhD, Associate Professor, National University of Singapore, Singapore
Panelists: Kim Rand-Hendriksen, PhD, CPSychol, Post-Doctoral Fellow, Department of Health Management and Health Economics, University of Oslo, Oslo, Norway; Juan Manuel Ramos-Goni, MSc, Research Scientist, The EuroQol Research Foundation, Rotterdam, The Netherlands; Mark Oppe, PhD, Senior Scientist, Executive Office, EuroQol Research Foundation, Rotterdam, The Netherlands
ISSUE: Health state utility is usually elicited using a single valuation technique such as time trade-off (TTO) or standard gamble (SG). However, evidence from a multinational research program suggest that using two different valuation techniques, i.e. TTO and discrete choice experiment (DCE), to determine utility values of the EQ-5D-5L multi-attribute instrument has a great potential. While this new approach has been successfully used to estimate the utility values of EQ-5D-5L health states in some European countries, it has not been reported in Asia where the necessary data has been collected in China, Hong Kong, Indonesia, Japan, Korea, Singapore, and Thailand.
OVERVIEW: TTO is the most popular technique for valuation of health outcomes. Because of the underlying concept is complex, TTO is difficult to both interviewers and respondents and may result in poor-quality data. In contrast, DCE has proven to be easy to administer and understand although the utility values derived are from an arbitrary scale. For estimating a value set for the EQ-5D-5L instrument, a study protocol has been developed to include both TTO and DCE techniques in such a way that the value set can be estimated using TTO data alone or by combining TTO and DCE data. What is the added value of DCE data to the estimation of a value set if TTO data alone can be used? What happen when TTO and DCE show different or even contradicting results? Theoretical and technically, what is the best way to model the two types of valuation data? In this session, the panellists will review the pros and cons of the two approaches and debate whether the hybrid approach should be pursued by Asian countries. The audience will be invited to ask questions, share their views, as well as participate in the debate.
and to explore whether the insights gained can help other countries contemplating the greater use of economic evaluation.

The methods and use of economic evaluation vary greatly across countries. Some jurisdictions use QALYs, some prefer measures of clinical benefit. Some jurisdictions employ a fixed cost-effectiveness threshold in deciding whether or not to accept new technologies, others use price negotiations or payment reform. Do these differences arise by chance, or can they be linked to the underlying culture, values and institutional context in each country? If these links could be better understood, this would assist countries determine the most appropriate way using economic evaluation in their own decision-making processes. This panel will explore these issues from the perspective of the Asia-Pacific region, informed by recent research conducted in Europe and in Japan. Michael Drummond will moderate and present an overview of the issue, reporting on research conducted in Europe and Dr. Fukuda will present a perspective from Japan. Professor Scuffham will give a perspective from Australia and Dr. Tarn will present a perspective from Taiwan.

OVERVIEW: Several countries in the Asia-Pacific region are debating how best to introduce, or expand the use of, economic evaluation in their health care decision-making process. However, it is clear that the methods and use of economic evaluation vary greatly across countries. Some jurisdictions use QALYs, some prefer measures of clinical benefit. Some jurisdictions employ a fixed cost-effectiveness threshold in deciding whether or not to reimburse new technologies, others use price negotiations or payment reform. If the reasons for these differences in approach could be better understood, countries considering the increased use of economic evaluation might be more able to form a view on the most appropriate way forward for their jurisdiction. The purpose of this panel is to discuss these issues from the perspective of three countries and to explore whether the insights gained can help other countries contemplating the greater use of economic evaluation.

IP6: HOW DO CULTURE, VALUES, AND INSTITUTIONAL CONTEXT SHAPE THE METHODS AND USE OF ECONOMIC EVALUATION?
Room 324
Moderator: Michael Drummond, MCom, DPhil, Professor of Health Economics, Centre for Health Economics, University of York, Heslington, York, UK
Panelists: Takashi Fukuda, PhD, Director, National Institute of Public Health, Wako, Japan; Yen-Huei (Tony) Tarn, PhD, MS, Associate Professor, School of Pharmacy, Kaohsiung Medical University, Kaohsiung, Taiwan; Paul Scuffham, PhD, Professor of Health Economics, Population and Social Health Research, Griffith University, Gold Coast, Australia

ISSUE: The methods and use of economic evaluation vary greatly across countries. Some jurisdictions use QALYs, some prefer measures of clinical benefit. Some jurisdictions employ a fixed cost-effectiveness threshold in deciding whether or not to accept new technologies, others use price negotiations or payment reform. Do these differences arise by chance, or can they be linked to the underlying culture, values and institutional context in each country? If these links could be better understood, this would assist countries determine the most appropriate way using economic evaluation in their own decision-making processes. This panel will explore these issues from the perspective of the Asia-Pacific region, informed by recent research conducted in Europe and in Japan. Michael Drummond will moderate and present an overview of the issue, reporting on research conducted in Europe and Dr. Fukuda will present a perspective from Japan. Professor Scuffham will give a perspective from Australia and Dr. Tarn will present a perspective from Taiwan.

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IP7: THE ROLE OF HTA UNDER THE UNIVERSAL HEALTH COVERAGE SYSTEM: HOW WILL IT WORK FOR ASIA?
Room 326
Moderator: Allen Yu-Hung Lai, MD, MSc, MPA, PhD, Principal of Health Economics & Outcomes Research, IMS Health, Singapore
Panelists: Bruno Rossi, BA, Advisor, Bayer Yakuhin, Ltd., Osaka, Japan; Bin Chia Wu, PhD, Head, Economic Modeling, Ministry of Health Singapore, Singapore; W. Ken Redekop, PhD, MPH, Associate Professor, Institute for Medical Technology Assessment, Erasmus University Rotterdam, Rotterdam, The Netherlands

ISSUE: The role of health technology assessment (HTA) under the universal health coverage (UHC) system: challenges, aspirations, and implications for Asia.

OVERVIEW: HTA has long been advocated by national regulatory authorities as an essential foundation to secure universal health coverage through the efficient and equitable allocation of health care and other resources in advanced economies. HTA is indeed a mechanism to sustain and improve the UHC system. With the growing momentum for UHC, each Asian country in this region has grappled with the issue of how to develop and sustain the UHC through the capacity building, governance and implementation of HTA. However, given the diversity and heterogeneity in social and economic development in Asia, the fundamental issue in equity of access to care is almost overlooked. HTA has a potential pitfall to impede/delay patient access to innovative therapeutic interventions. Also HTA using a threshold of cost per benefit could cause inequity issues among patients according to financial affordability. We argue that UHC must be established as a core system for public equity as a pre-requisite before any HTA structure or institution is established. So any implementation of HTA in any country must consider the balance between sustainability of UHC and goals of HTA. In this panel, we will highlight the prerequisites, such as capacity building, infrastructure in place, ways of disseminating results, of HTA adoption and diffusion under the UHC system by comparing and contrasting HTA policy development in Japan, Taiwan and Singapore. The aspirations and implications of HTA in UHC for Asia will be discussed.

IP8: COULD MULTIPLE-CRITERIA DECISION ANALYSIS HELP DECISION MAKERS FOR REIMBURSEMENT OF IMMUNO-ONCOLOGY MEDICINES?
Room 300-301
Moderator: Tan Seng Chuen, BPharm (Hons), MSc, Director, Market Access (Oncology), MSD, Singapore
Panelists: Daniel Chan, DrMBBS, Specialist in Medical Oncology, Singapore Oncology Consultants, Singapore; James Pellissier, PhD, Executive Director, Predictive & Economic Modeling, Merck Research Laboratories, Merck & Co., Inc., North Wales, PA, USA; Eui-Kyung Lee, PhD, Professor, Pharmaceutical Policy & Outcomes Research, School of Pharmacy, Sungkyunkwan University, Suwon, South Korea
ISSUE: Cost-effectiveness analysis (CEA) has been increasingly required in listing and reimbursement decision-making. However, limitations and concerns on the rigidity and inability of CEA to account for the value of an innovation on other attributes are well recognised. Opinions and preferences of patients and society in addition to those of payers and physicians are playing an increasingly significant role in decision-making. Could multiple-criteria decision analysis (MCDA) potentially offer a useful additional robust and systematic approach to holistic value assessment alongside CEA for decision-making? How important is each value attribute in a MCDA? What are the key practical challenges in incorporating MCDA in decision-making? The panel will address the issue from the perspectives of physicians, industry and academia through a case study of an immuno-oncology (IO) therapy.

OVERVIEW: During the discussion moderated by Tan SC, experts will contribute distinct perspectives related to the issue of evaluating innovative health care technologies: 1) Dr. Chan will not only share his clinical experience but also patients’ and caregivers’ view on the value of an innovative therapy; 2) Dr. Pellissier will illustrate the inadequacy of a CEA in capturing the value of IO on many other aspects that are important to be considered; 3) Prof Lee will present a MCDA study that reports the preference weight and performance scoring of an IO against standard of care on each identified attribute by surveying a sample of general public respondents in Korea. The panel will discuss the importance and key considerations in applying MCDA in reimbursement decision-making of an innovative intervention from 3 different perspectives.

IP9: PREDICTING FUTURE EVIDENCE: RISK-SHARING AGREEMENTS, MANAGED ENTRY SCHEMES, OR SOMETHING ELSE? Summit 1
Moderator: William Montgomery, BPharm, Principal Research Scientist, Eli Lilly Australia Pty Ltd., Sydney, Australia
Panelists: Andrew Mitchell, MMedSci, Strategic Adviser, Evaluation, Department of Health, Canberra, Australia; Rosalie Viney, PhD, Professor, Centre for Health Economics Research and Evaluation, University of Technology Sydney, Sydney, Australia; David Grainger, BSc, Director, Global Public Policy, Eli Lilly and Company, Sydney, Australia

ISSUE: Predicting future evidence in drug reimbursement.
OVERVIEW: Accelerated regulatory approval of medicines is becoming more and more common when clinical trials stop prematurely due to improved efficacy in areas of high unmet need such as cancer. This leads to a very complex situation in terms of uncertainty when predicting future clinical treatment algorithms and when extrapolating the evidence beyond the duration of the clinical trial for both efficacy, toxicity and quality of life, as well as when crystal-ball the potential budget impact. Both decision makers and manufacturers face substantial challenges as they try to balance the opportunity against clinical need and the risk of a less than anticipated health gain. This panel will explore the value of various options that have been suggested and implemented in Australia, ranging from risk share agreements to managed entry schemes with the promise of future evidence. The panel will present different perspectives on the topic with representatives from the payer and industry.

CLINICAL OUTCOMES RESEARCH ISSUES

IP10: CLINICAL TRIALS FOR REGULATORY AND REIMBURSEMENT NEEDS: DOES ONE SHOE FIT ALL? Room 325
Moderator: Hansoo Kim, MSc, Market Access Manager, Bristol-Myers Squibb Australia, Mulgrave, Australia
Panelists: Danny Liew, PhD, Professor, Monash University, Melbourne, Australia; Stephen Goodall, PhD, MSc, Associate Professor, Centre for Health Economics Research and Evaluation, University of Technology Sydney, Sydney, Australia; Alissa Brown, MPH, Head of Market Access, Sanofi Australia, Macquarie Park, Australia

ISSUE: Clinical trials designed for regulatory approval rarely adequately cover the evidence needs for reimbursement and health technology assessment.
OVERVIEW: Clinical trials are mostly designed to establish the efficacy and safety of medical therapies, upon which regulatory approval can be sought. However, more and more markets are seeking evidence of cost-effectiveness, upon which to base reimbursement decisions. There is therefore an increasing need for trials to capture relevant health economic outcomes, including long term efficacy/safety data, quality of life, health resource utilisation and costs. This panel session will explore the need for, and development, ‘smarter’ trials and corresponding methodology for analysing these trials in order to meet both regulatory and reimbursement requirements. The panel will comprise of experts from regulatory, reimbursement evaluation and industry.
IP11: HOW CAN RISK-SHARING AGREEMENTS IN KOREA BE IMPROVED?

**OVERVIEW:** RSA is quite new in AP except a few countries, especially in terms of agreement with public payer. Since Korea publicly introduced RSA in 2014, 8 products are under RSA scheme. Professors Lee and Kim, will present survey conducted to Korean industry in 2015. In its survey, they will show the status of Korea RSA and result of questionnaire on perspective and improvement area. Mr. Grainger will update the trend of RSA and his study result based on questionnaire RWE application in other HTA countries. Mr. Choi, of the NHIS (single payer in Korea), will share payer’s perspective on the RSA operation in Korea. Panelists will then argue their position on RSA perspective and improvement direction. During this debate, issues on limitation (scope, type, post-RSA management, operation etc.) will be discussed. During this debate, the moderator will probe on alternative ways through the comparison with RSAs in other HTA countries and payer's viewpoint.

**ISSUE:** How should the risk-sharing agreement (RSA) system in Korea to be improved to increase patient access to innovation and how should it be applied to be operated? To find out what kind of barriers and problems the current Risk Sharing Agreement in Korea has and propose an alternative measure.

**OVERVIEW:** Decision makers may not be able to truly appreciate the real burden of an illness to patients. As a result, new technologies addressing this need may be undervalued. Therefore, capturing the impact of novel medications on patients’ lives and empowering patients to articulate the value of these innovations should lead to improved access, especially for innovative specialty products in areas such as oncology. While many AP health care systems with existing or emerging health technology assessment (HTA) are interested in principle to include the patients’ voice in funding decisions, in practice they often do not know how to implement this.

**OVERVIEW:** The guiding question of the issue panel is: How can we inform health care decision making, at HTA/payer level, by empowering the patient perspective on the value of medicines? The panel brings together experts from different AP countries, representing patient groups, policy makers and academia. The panelists will contribute their views and first-hand experience in Korea, Taiwan and Australia, highlighting the challenges and opportunities of incorporating and empowering patient perspectives into funding decisions. The three countries are arguably among the more mature subsidized health care systems in AP, yet each approaches this topic differently and with varying degrees of rigor, making them interesting case studies for other countries in the region. To further inform the discussion the results of a survey conducted with cancer patient groups & oncologists from throughout Asia-Pacific will be shared to understand unmet needs, challenges and potential in patient advocacy.

**IP12: HOW CAN WE EMPOWER THE PATIENT VOICE IN HEALTH CARE DECISION MAKING AT THE POLICY LEVEL?**

**OVERVIEW:** Value of pharmaceutical products is viewed differently based on the eyes of beholder. Reimbursement decisions assigned to new products are primarily based on payer's views which are related to trial-based value at launch. Value differentiation became key information to determine the price and reimbursement condition. Value on clinical aspect at launch can sometimes not be secure the investment by payers and relevant stakeholders, there the need for pharmaceutical

**IP13: WHAT IS THE OPTIMAL APPROACH TO CONFIGURING THE BURDEN OF PROOF DURING THE COST-CONTAINMENT ERA?**

**OVERVIEW:** Value of pharmaceutical products is viewed differently based on the eyes of beholder. Reimbursement decisions assigned to new products are primarily based on payer's views which are related to trial-based value at launch. Value differentiation became key information to determine the price and reimbursement condition. Value on clinical aspect at launch can sometimes not be secure the investment by payers and relevant stakeholders, there the need for pharmaceutical
companies to produce the series of evidence to prove the value thereafter. In addition, the size of budget to spend for becomes a commonly critical factor for reimbursement decision, especially for high cost drugs like oncology. Value and budget then needs to be well addressed and managed in this context and there are ongoing policy efforts in Asia-Pacific on this. In this session, we will bring three different perspectives including physician, academia, and industry to discuss on how the optimal value configuring can be done by focusing on the triple objectives from the health care financing perspective including achievement, execution, and sustainability. The recommendation on how we can co-create the better value for oncology products will be also presented.

IP14: HOW SHOULD WE ADDRESS THE SPECIFICITIES OF EVALUATING MEDICAL DEVICES? Room 326
Moderator: Allen Yu-Hung Lai, MD, MSc, MPA, PhD, Principal of Health Economics & Outcomes Research, IMS Health, Singapore
Panelists: Chunyue Yin, MD, PhD, MBA, Manager, Health Economics & Market Access, Johnson & Johnson Medical Asia-Pacific, Singapore; Laurent Metz, MD, PhD, Director, Health Economics Market Access & Clinical Research, MD&D Asia Pacific, Johnson & Johnson Medical Asia Pacific, Singapore
ISSUE: Specificities of Medical Devices Evaluation.
OVERVIEW: Most of the international guidelines for conducting Health Technology evaluations have been primarily developed for pharmaceuticals and adapted for evaluating medical devices. However evaluation of medical devices is associated with strong specificities such as the learning curve, the generalization of outcome, the distorted input costs and the systemic economic impact. The Learning curve: the “clinical effectiveness” of a medical device is dependent not just on the efficacy of the device itself, but also on the adeptness and expertise of the surgeon using it. Therefore the HT evaluation of a medical device unlike that of a drug needs to be an ongoing process. Generalizing outcomes & class effects: medical devices belonging to a specific class, unlike drugs may have differing properties, such as- the make, materials, which may have an effect on the outcomes. Distorted input costs: with the introduction of newer Medical devices older technologies may become redundant and experience price-cuts. Costs of such obsolete technologies are frequently used as comparators when conducting economic evaluations. Systemic economic impact: adoption of a medical device may cause a significant alteration in the health care delivery and standards of care. Therefore the economic benefits need to be evaluated within the context of a particular health care system, and not just from an immediate cost-benefit, but a wider system wide or societal perspective. Health Technology Assessment is thus a powerful tool which if applied in the right context and through a well-informed approach, can result in the rational use of available evidence for making informed decisions.

ECONOMIC OUTCOMES RESEARCH ISSUES
IP15: SHOULD PRODUCTIVITY LOSSES DUE TO ILLNESS BE CONSIDERED IN HEALTH ECONOMIC EVALUATIONS? Room 325
Moderator: Craig Brooks-Rooney, MA, Head, Asia-Pacific, Costello Medical Singapore Pte Ltd., Singapore
Panelists: Dominique Milea, PharmD, PhD, Director, Health Economics & Epidemiology Asia, Lundbeck Singapore Pte. Ltd., Singapore; W. Ken Redekop, PhD, MPH, Associate Professor, Institute for Medical Technology Assessment, Erasmus University Rotterdam, Rotterdam, The Netherlands; Hwee Lin Wee, PhD, Assistant Professor, Pharmacy, National University of Singapore, Singapore
ISSUE: It will be debated whether productivity losses should be included within health economic evaluations and whether the methods should differ between countries. The perspective that productivity losses are essential will be contrasted with the viewpoint that they inequitably favour people of working age.
OVERVIEW: Diseases not only place a burden on patients and health care systems but also on society, predominantly through the impact on employment and productivity. Medical interventions have the potential to lead to direct benefits to patients and health care systems as well as to society in general, by reducing productivity losses due to disease. Nevertheless, few countries formally consider productivity costs as part of their evaluation of health care technologies. Given the controversies in estimating productivity costs due to absenteeism and presenteeism, coupled with the ethical dilemmas that are introduced regarding favouring people of working age, these are rarely considered as part of formal health technology evaluation processes (including in Asia) and thus the impact of a disease, and potential treatment options, on productivity is not fully considered. Productivity is a key economic issue, particularly in some Asian countries such as Singapore with an aging population and recent tighter controls on immigration; maximum productivity is therefore required from each citizen. One aspect of the debate will be on whether different methods for estimating productivity losses are appropriate for different markets and whether there is a need to standardise methodologies for measuring and valuing productivity losses. The audience will be asked to vote following the discussion and will be encouraged to pose their questions to the panellists and contribute their own viewpoints.
W1: APPLYING HEALTH TECHNOLOGY ASSESSMENT TO PRECISION MEDICINE: EVALUATING NOVEL DIAGNOSTIC TESTS Room 324
Discussion Leaders: W. Ken Redekop, PhD, Associate Professor, Institute of Health Policy & Management, Erasmus University Rotterdam, Rotterdam, The Netherlands; Hwee Lin Wee, PhD, Assistant Professor, Pharmacy, National University of Singapore, Singapore; Joanne Yoong, PhD, Senior Economist, University of Southern California and Associate Professor, National University of Singapore, Singapore
PURPOSE: This workshop will focus on the practical use of health technology assessment for assessing developments in the rapidly growing area of precision medicine. Workshop participants will become familiar with a decision analytic framework and technical aspects of modeling suitable for existing diagnostics as well as approaches for prospective assessment of the value of future test development (early HTA), as part of skills needed to critically appraise the value of innovations in this field.
DESCRIPTION: This workshop will combine broad context-setting and discussion of practical challenges and implications with hands-on technical demonstrations using two key examples from different settings (pharmacogenetics/warfarin) and (imaging/stroke) to illustrate the application of HTA in precision medicine. Dr. Yoong will first provide a brief overview of key recent developments in the field of precision medicine, illustrating a range of implications for clinical practice and policy decision making. Using data from published literature, Dr. Wee will demonstrate the use of Markov modeling using TreeAge in evaluating the use of an existing pharmacogenetic test to individualize warfarin doses. Audience members will be interactively involved in model construction and design of sensitivity analyses, and will also be encouraged to critically discuss the results and implications for adoption and regulation. Dr. Redekop will then demonstrate the value of early HTA during test development, using imaging technologies for stroke patients as an example. Audience members will participate by suggesting scenarios for the analysis and discussing potential implications for researchers, test developers and funding agencies. Finally, the audience will be invited to share experiences and perspectives on the types and uses of HTA that are likely to be most valuable as the field of precision medicine evolves.

USE OF REAL WORLD DATA

W2: EVOLVING METHODS FOR STAGING PROSPECTIVE REAL-WORLD EVIDENCE STUDIES IN MATURE AND EMERGING MARKETS Summit 1
Discussion Leaders: David Thompson, PhD, Senior Vice President, Real World Evidence Consulting, inVentiv Health, Burlington, MA, USA; Jianwei Xuan, MD, PhD, Advisory Professor, School of Public Health, Fudan University, Shanghai, China; Linda Liong, BS, Project Director, Late Stage Operations, APAC, inVentiv Health, Singapore
PURPOSE: Patient registries are widely used to collect real-world data on patients selected based on their clinical characteristics, treatments received, or risk-factor exposure. The purpose of this workshop is to trace the evolution of patient registry methods in mature and emerging markets.
DESCRIPTION: The need for timely data on disease progression, treatment safety and effectiveness, and patient-reported outcomes in real-world settings continues to grow. Regulatory authorities in many markets increasingly require post-authorization safety studies (PASS) for newly approved interventions, while reimbursement authorities and payers have growing interest in collecting data to assess the comparative effectiveness of competing treatments. Patient registries are commonly staged to meet these needs. On a fundamental level, a registry involves the recruitment of patients into an observational study, with data collected at a baseline visit followed by periodic assessments for prospective data collection on measures of interest. In mature economies, such as the United States, advances in health information technology and new federal incentives are fueling rapid growth in the use of electronic medical record (EMR) systems. The proliferation of EMRs and electronic data capture (EDC) technologies is changing the way in which registries are staged, facilitating patient screening and recruitment, data capture, and data transfer. The need to manually review patient charts to identify eligible patients and complete hard-copy case-report forms to collect data is on the decline. EMRs are less widely available in the emerging markets, complicating the conduct of international registries by requiring mixed models of patient recruitment and data collection. This workshop will describe the implications for patient registries of the availability of newer practice-based technologies, comparing and contrasting evolving methods in the mature and emerging markets. The discussion leaders will provide case study examples to highlight these differences and workshop participants will be encouraged to share their own experiences.

W3: AN INTRODUCTION TO THE CASEMIX DATABASE IN MALAYSIA, INDONESIA, AND PHILIPPINES Room 300-301
Discussion Leaders: Syed Mohamed Aljunid, MD, MSc, PhD, Professor, Faculty of Public Health, Department of Health Policy and Management, Kuwait University, Kuwait City, Kuwait; Soraya Azmi, MD, MPH, Managing Director, Azmi Burhani Consulting, Petaling Jaya, Malaysia; Adrian Goh, MEC, Health Economist, Azmi Burhani Consulting, Petaling Jaya, Malaysia; Amrizal Muhd Nur, MD, MSc, PhD, Senior Research Fellow, Universiti Kebangsaan Malaysia, Cheras, Malaysia
PURPOSE: This workshop will be to present information on a fledgling administrative database in the Southeast Asian region,
the Casemix system, used in Indonesia, Philippines, and Malaysia. Participants will also be made familiar similarities and differences of the data in each country and how the dataset can be used as real-world evidence.

DESCRIPTION: Administrative databases are relatively new in the Southeast Asian region. The Casemix system developed by the National University of Malaysia has been implemented in the three countries in Southeast Asia. Due to health system differences, the information obtained from the database could differ. Speakers will cover content related to (i) how the database is used from an administrative perspective, (ii) what are the data variables in the Casemix system, (iii) how the type of data collected varies in the three countries due to health system differences, (iv) strengths and limitations of the data and (v) how the Casemix data can be used to answer pertinent research questions. Dr. Soraya Azmi will present information about the content of the Casemix dataset and how it is collected in each country. Dr. Amrizal Muhd Nur will highlight differences between datasets from each country and discuss strengths and limitations of the dataset. Mr. Adrian Goh will address how the dataset, representing real-world evidence, can be used to answer health economic and outcomes research questions. Professor Syed Aljunid will elicit questions and comments from the audience regarding their experience with administrative databases in the region. Since databases like this are relatively rare and a novelty in the Southeast Asian region, workshop will be useful for participants who are interested in discussing the opportunities and challenges posed by the Casemix data and other new data sources like it.

PATIENT-REPORTED OUTCOMES & PATIENT PREFERENCE RESEARCH

W5: VALUE PROPOSITION DEVELOPMENT: COMMUNICATING VALUE IN THE PATIENTS’ LANGUAGE Room 325

Discussion Leaders: Bruce Crawford, MA, MPH, Senior Principal, Real-World Evidence Solutions, Japan & APAC, IMS Japan K.K., Minato-ku, Tokyo, Japan; Keiko Wada, MA, Senior Consultant, Real-World Evidence Solutions, IMS Japan K.K., Minato-ku, Tokyo, Japan; Joe Caputo, BSc, Associate Director, ESSEC Institute of Health Economics and Management, ESSEC Asia-Pacific, Singapore; Jittrakul Leartsakulpanitch, PhD, Head, Market Access, Janssen Asia Pacific, Singapore

PURPOSE: The recent years have brought renewed attention to integrating patients' voice in assessing the value of medicines. The purpose of the workshop is to introduce and discuss an innovative methodology in developing and adapting value propositions specific for patients in out of pocket/self-pay markets, with an aim to reflect the patients' voice and leverage the clinical and humanistic value of products in the context of patient-specific value drivers.

DESCRIPTION: Traditionally, value propositions have been driven by clinical values offered by products in respect of the physician and/or payer perspectives. Recently, the importance of involving patients in healthcare decision-making and obtaining the opinion of patients in assessing the value of medicines has been increasingly recognized. In out of pocket/self-pay markets, for example, patients have a greater role in choice of treatment, in conjunction with their physician, greatly impacting market access and product positioning. We believe it is important for value propositions aimed for patients to clearly reflect patient-reported symptoms and impacts of their disease. Messages that are comprehensive, meaningful and clear, considering all relevant value drivers throughout the patient journey from the patient perspective, can be effective. This workshop will detail a recently developed, systematic way of developing value propositions reflecting patients' voice that has been used for a variety of products across several countries. Discussion leaders will lead a discussion on their and the audiences' experience in developing, adapting, and testing value propositions that reflect patients' voice. Workshop attendees will engage in an exercise whose aim is to introduce steps and tips such as ways to collect patient voices on their disease, incorporate clinical evidence associated with patient perspective information, consolidate them to develop draft messages, testing them with patients, and revising based on the patients' feedback.
HEALTH POLICY DEVELOPMENT USING OUTCOMES RESEARCH

W6: ADAPTING PHARMACOECONOMIC DATA OF ANALYSES FROM OVERSEAS FOR USE IN DECISIONS IN MIDDLE INCOME COUNTRIES Room 326
Discussion Leaders: Michael Drummond, MCom, DPhil, Professor of Health Economics, Centre for Health Economics, University of York, Heslington, York, UK; Bong-Min Yang, PhD, Professor, School of Public Health and Executive Director, Institute of Health and Environment, Seoul National University, Seoul, South Korea; Jasmine Pwu, PhD, Senior Investigator, Health Data Research Centre, National Taiwan University, Taipei, Taiwan; Nathorn Chaiyakunapruk, PhD, Professor of Health Economics, School of Pharmacy, Monash University Malaysia, Selangor, Malaysia
PURPOSE: Decision makers in middle income countries are increasingly using economic evaluations in pricing and reimbursement decisions for pharmaceuticals and other technologies. However, whilst many of these jurisdictions have local submission guidelines and local expertise, the studies submitted by technology manufacturers often use economic models developed elsewhere and elements of data from other countries. The purpose of this workshop is to discuss the challenges faced by decision makers in transferring data and analyses from other jurisdictions and the methods available.
DESCRIPTION: In this workshop the challenges faced by decision makers in transferring data and analyses from other jurisdictions will be discussed. The workshop will draw on the results of an interview survey of representatives of decision making bodies in 12 jurisdictions in Asia, Central and Eastern Europe, and Latin America that have had at least one year’s experience of using economic evaluations. The discussion leaders will discuss the results of the survey and will present their own perspectives on the main obstacles in using data or analyses from other countries and the challenges in conducting local analyses in the Asia-Pacific region. Participants in the workshop will have the opportunity to share their own experiences in transferring foreign data or analyses.

USE OF REAL WORLD DATA

W7: SHARING REAL-WORLD DATA EXPERIENCES OF USING TAIWAN’S NATIONAL HEALTH INSURANCE RESEARCH DATABASE Room 300-301
Discussion Leaders: Ming-Hui Tai, MS, MHPA, PhD, Lead Outcomes Research Analyst, Pharmerit International, Bethesda, MD, USA; Chung-Hsuen Wu, PhD, Assistant Professor, Department of Clinical Pharmacy, Taipei Medical University, Taipei City, Taiwan; Fang-Ju Lin, PhD, Assistant Professor, Graduate Institute of Clinical Pharmacy, National Taiwan University, Taipei, Taiwan; Yu-Chen Yeh, MS, RPh, Senior Clinical Outcomes Scientist, Pharmerit International, Newton, MA, USA
PURPOSE: To discuss the potential use, challenges, and opportunities to conduct health outcomes research using large administrative databases, and share Taiwan experiences to strengthen future research in this field.
DESCRIPTION: Taiwan has a single-payer health insurance system that covers 99.9% of its population. The National Health Insurance Research Database (NHIRD) in Taiwan is mainly used for reimbursement purposes; however this claims database can be a tool to enrich epidemiology, health services research, comparative effectiveness research, administration, and payment policy. Study findings from this database could be applicable to other Asian countries for market access purposes. This workshop, led by health outcomes researchers who have hands-on experiences with different large administrative databases, will provide an array of knowledge and advice for conducting related studies in Taiwan. Topics in the workshop will include: 1) an overview of NHIRD including database content, structure, and related data use regulations, 2) our experience of using data to support reimbursement and outcomes research issues using NHIRD, and 3) examples of potential benefits of using the NHIRD to demonstrate how this database could facilitate global-to-local adaptation projects such as future trial designs and evidence-based health technology assessments. Workshop participants will receive comprehensive knowledge about the NHIRD and learn the potential challenges, limitations, and opportunities in using this administrative database.

ECONOMIC OUTCOMES RESEARCH

W8: APPLIED EARLY ECONOMIC MODELLING FOR COMBINATION THERAPIES IN ONCOLOGY: NOVEL VALUE-BASED PRICING APPROACH Summit 1
Discussion Leaders: Cyrus A. Chowdhury, MSc, CEO & Managing Director, CBPartners, New York, NY, USA; Meghan Gallagher, MSc, Director, Global Health Economics and Outcomes Research, Oncology, Sanofi, Cambridge, MA, USA; Katernya Onishchenko, PhD, Health Economist, CBPartners, London, UK
PURPOSE: This workshop will focus on value based pricing challenges that currently exist in the global oncology market due to health authorities’ gravitation towards evidence-based access and pricing decisions, as well as the industry’s continued evolution towards innovative, but expensive oncology regimens that may include the combination of two branded therapies. Workshop participants will become familiar with novel methods to define pricing opportunity for early-stage products, as well as how key variables such as clinical outcomes and payer willingness to pay.
DESCRIPTION: Recently discovered oncology therapies still very early in development increasingly are being studied in combination with other, existing branded treatments that improve the overall patient outcomes. In countries that apply
cost-effectiveness thresholds, both formally and informally, these combination regimens face daunting pricing and access challenges. To better predict the viability of these monotherapy treatments and associated combination regimens, the workshop leaders developed a proprietary platform for evaluating risk and opportunity with for pricing and access of these early-stage agents. Workshop participants will be guided through an overview of the marketplace realities driving the relevance of the above stated issues. Discussion will focus on a) challenges of the value based pricing mechanisms for combination therapies in different country settings, b) economic tools exist to assess the cost-effectiveness of the pipeline regimens, and c) assess to the clinically supported price of the add-on agent at different willingness to pay thresholds. A centerpiece of the workshop will involve a focus on the utility of applied early economic modelling methods to investigate at anticipated cost-effectiveness of combination regimens in different subpopulations, across different comparators, and in different indications. Discussion through case studies will be facilitated by the workshop leaders. This workshop will be valuable to a broad audience including health economic researchers, industry observers / analysts, and market access brand managers.

PATIENT-REPORTED OUTCOMES & PATIENT PREFERENCE RESEARCH

W9: INCORPORATING FINANCIAL INCENTIVES AND PATIENT PREFERENCES IN THE DESIGN OF CANCER SCREENING PROGRAMMES Room 324

Discussion Leaders: W. Ken Redekop, PhD, MPH, Associate Professor, Institute for Medical Technology Assessment, Erasmus University Rotterdam, Rotterdam, The Netherlands; Hwee Lin Wee, PhD, Assistant Professor, Pharmacy, National University of Singapore, Singapore; Joanne Yoong, PhD, Senior Economist, University of Southern California and Associate Professor, National University of Singapore, Singapore

PURPOSE: Cancer screening programmes are important clinical preventive services that can reduce the mortality and morbidity burden of cancer. However, national level cancer screening programmes are resource intensive and have generally met with limited success in terms of participation rate. The aim of this workshop is to discuss various approaches for maximizing the impact of cancer screening programmes, including participation rate, health impact and efficiency.

DESCRIPTION: Dr. Yoong will begin with an introduction to behavioral economics and its role in health promotion and screening programmes. She will provide examples of how the use of incentives, default options, pre-commitment strategies, etc can nudge women into attending breast cancer screening. Dr. Wee will continue the discussion on breast cancer screening by asking the audience to provide reasons why they themselves or women they knew would or would not undergo breast cancer screening. She will then lead the audience to identify the attributes and levels for use in a discrete choice experiment (DCE), a multi criteria decision analysis (MCDA) technique. A sample choice task with two alternatives will be set up in Sawtooth ® software as an illustration. Dr. Redekop will conclude with a discussion with audience about the potential for these techniques in the design and implementation of screening programmes, as well as improve their transparency and reproducibility.

W10: TAKING PATIENT PREFERENCES INTO CONSIDERATION IN THE PATIENT-CENTERED HEALTH CARE SYSTEM

Room 325

Discussion Leaders: Jianwei Xuan, MD, PhD, Director, Health Economic Research Institute, Sun Yat-sen University, Guangzhou, China; Boxiong Tang, MD, PhD, Senior Director, Global Health Economics and Outcomes Research, Teva Pharmaceutical, Frazer, PA, USA; Yi Han, PhD, MBA, Executive Vice President, Market Access and HEOR, Cello Health, Yardley, PA, USA

PURPOSE: This workshop will review the latest research advances on patient/provider preferences, which are emerging as central topics in patient-centered healthcare systems. Methodologies to assess patient preferences in health economics and outcomes research will be introduced. Workshop participants will become acquainted with real-world examples of determining patient preferences and applying the findings to healthcare decision making.

DESCRIPTION: The Institute of Medicine (IOM) defined patient-centered care as “care that is respectful of and responsive to individual patient preferences, needs and values” (in 2001). As recipients of healthcare services, patients have unique perspectives that are distinct from those of payers and providers. Patient preferences will increasingly inform healthcare decision making as global healthcare systems evolve toward a more patient-centered orientation. Consequently, healthcare decision makers need to better understand methods to evaluate and integrate patient preference data in order to choose between multiple medical interventions. Numerous research efforts have been undertaken to deepen our understanding of patient preferences. Objectives of this workshop are to: 1) describe current patient-centered healthcare reform efforts in Asia and China; 2) outline available options to measure patient preferences in the pharmaceutical and medical-device industries; 3) characterize the choice-based cross-sectional study methodology and its applications in assessing patient preferences; and 4) discuss strategies to incorporate patient preference data into healthcare decision making. The workshop will provide an overview of the roles of patients/providers preference studies in healthcare decision making, the latest and advanced methodologies used in patients/providers reference studies. Real world examples/case studies will be presented. Attendees will learn how to apply the theories to their daily practices, and encouraged to bring their questions, challenges for discussion.
HEALTH POLICY DEVELOPMENT USING OUTCOMES RESEARCH

W11: MARKET ACCESS OF ORPHAN DRUGS IN ASIA: RECENT DEVELOPMENTS AND IMPLICATIONS

Discussion Leaders: Xia Chen, PhD, Senior Consultant, Market Access, Pope Woodhead & Associates, Cambridgeshire, UK; Francois Lucas, PhD, Principal Consultant, Pope Woodhead & Associates Ltd, St. Ives, UK; Shanlian Hu, MS, MD, Director, Shanghai Health Development Research Center, Shanghai, China; Oswald Bentinck, LLM, MSc, Regional Market Access Lead, JAPAC & Aus/NZ, Shire, Zug, Switzerland

PURPOSE: This workshop will discuss recent government initiatives, policy developments and key stakeholder activities that impact the pricing and market access landscape for orphan drugs (ODs) in Asia.

DESCRIPTION: Dr. Chen and Dr. Lucas will review the current access landscape for ODs across Asian markets (focusing on China, Japan, South Korea), and how the recent developments (e.g. “free pricing” in China introduced in 2015) impact the pricing and access opportunities for ODs. Professor Hu will share his experience on the practical impact of these policies, using case studies from the Shanghai area, and provide insight into the policy trends that would shape access to ODs in China. Mr. Bentinck will bring industry’s perspectives on why greater access to ODs is needed in Asia, and share learnings about the challenges. Audience participation will include a survey of attendees’ views about the societal considerations (e.g. willingness to pay) behind access to ODs, and participants will be encouraged to share their experience and perspectives during the workshop.

Key questions asked and addressed in the workshop will include: (1) What societal choices do the Asian countries make when deciding whether or not to reimburse ODs? (2) How can the price and value for ODs be justified in Asian markets? (3) What actions can manufacturers take to enable successful market access for ODs in Asia? Dr. Chen and Dr. Lucas will conclude the workshop with key take away messages and potential solutions for pharmaceutical industry to support access for ODs in Asia. This interactive and informative workshop will be valuable to policy researchers / advisors, and industry analysts who are interested in understanding recent developments and their implications on the access for ODs in Asia.

USE OF REAL WORLD DATA

W12: INTRODUCING A NOVEL CONCEPT TO OBSERVATIONAL RESEARCH IN THE ASIA-PACIFIC REGION: ENRICHED REAL-WORLD DATA STUDIES

Discussion Leaders: Laura Garcia Alvarez, PhD, Engagement Manager, Real-World Evidence Solutions, IMS Health, Barcelona, Spain; Joshua Hiller, MBA, Senior Principal, Real-World Evidence Solutions, IMS Health, London, UK; Joanne Yoong, PhD, Senior Economist, University of Southern California and Associate Professor, National University of Singapore, Singapore; Ong Leong Seng, MSc, Chief Architect & Group Director, Architecture & Innovation, Integrated Health Information System, Ministry of Health Holdings, Singapore

PURPOSE: This workshop will aim to explain the different elements of a novel approach to observational research, where participants will be introduced to the concept of Enriched RWD studies and will have the opportunity to discuss with a panel of relevant experts the opportunities and potential hurdles for implementing such studies in Asia-Pacific. Workshop participants will also become familiar with previous experiences using this methodology in other countries and will learn ways the Enriched RWD studies can benefit various aspects of observational research.

DESCRIPTION: Even though there is a growing need for generating evidence to support healthcare decisions in Asia-Pacific, the extent to which real-world data (RWD) has been used for this purpose in the region has been limited when compared to other countries. This is partly due to the heterogeneous infrastructure and access to electronic medical records (EMR). In this workshop, we will introduce an innovative concept for generating RWD in Asia-Pacific that will be of value in the coming years to optimize research. We will explore the different approaches that could be implemented in conducting Enriched RWD studies based on the degree of EMR availability: from the enhancement of prospectively collected data with information from existing EMR at the investigator sites during an observational study, to the enrichment of an accessible EMR backbone with prospective data collection. Potential uses of the backbone and the enhanced data will be described, as well as the considerations for implementing such studies in Asia-Pacific in the short- to mid-term. The possible hurdles that may be encountered, based on experience from other geographies, and the future trends in the area will also be illustrated. This workshop will be of value for researchers, physicians, pharma company delegates and regulators interested in gaining a better understanding of an innovative way for building the RWE capability within Asia-Pacific.


Discussion Leaders: Michelle Bulliard, RN, Vice President & Global Head, Real World Evidence Strategy, Quintiles, St. Prex, Switzerland; Tiphaine Courbet, MA, Associate Director, Clinical Project Management, Regional Strategy Lead for APAC, Real World and Late Phase Research, Quintiles, Chatswood, Australia

PURPOSE: To discuss practical review of the European Union (EU) pharmacovigilance (PV) legislation and regulations, impacting PASS and PAES, methodological considerations when designing safety and efficacy studies, and measuring effectiveness and safety reporting.
DESCRIPTION: EU 2010 PV Legislation and Good Pharmacovigilance Planning In Japan. The (EU) pharmacovigilance legislation has been subject to a major review that led to the adoption of new legislation in 2010. This has been the biggest change that has come out of the European Medicines Agency (EMA) since its inception in 1995. In their recent publication Kubota el al discuss ‘the importance of the reexamination system is currently increasing1, so what have we learned since this EU PV legislation came into force and what lessons can be applied to the reexamination system in Japan?

ECONOMIC OUTCOMES RESEARCH

W14: DATA TRANSFERABILITY ACROSS ASIAN MARKETS: RESEARCH NEEDS FROM THE DECISION-MAKER AND INDUSTRY PERSPECTIVES Room 324

Discussion Leaders: Joe Caputo, BSc, Associate Director, ESSEC Institute of Health Economics and Management, ESSEC Asia-Pacific, Singapore; Rob Thwaites, MA, Senior Director, Takeda, London, UK

PURPOSE: Policy shifts towards universal coverage means greater scrutiny of country healthcare systems including how healthcare is delivered and increasingly, evidence that payers are receiving value for money. Greater emphasis is being placed on understanding local population needs, with decision makers increasingly expecting to see locally tailored economic evaluations for new drugs and devices. But whilst decision-makers demand local information on one hand, it is Pharma and Device manufacturers that are left to bear the burden of research, at considerable cost. This workshop will consider the differing perspectives of key stakeholders and participants will hear practical approaches to more efficient research methods and how regional and global data can be better leveraged.

DESCRIPTION: Participants will obtain an overview of local population data requirements across Asia-Pacific, including discussion around acceptability of non-local data and how this might impact on reimbursement and coverage decision-making. The workshop will: review formal requirements for local data, assess acceptability of regional or global data in the absence of local data, review limitations in the decision making process where local data is not available, hear how industry is approaching the need for ever increasing data requirements, learn how evidence generation planning at a global and local level can dovetail together, introduce future approaches to evidence generation that can meet the needs of both decision makers and industry e.g. via the Innovative Medicines Initiative (IMI) ‘GetReal’ project. Audience will participate via surveys of attitudes towards increasing data requirements across the region, and be encouraged to share innovative research approaches that reduce the need to reproduce research studies across the region. The workshop will be of particular interest to researchers, decision-makers and industry experts who conduct research in Asia-Pacific, with a view to raising quality of local and regional research that meets the needs of decision-makers in a more efficient manner.

PATIENT-REPORTED OUTCOMES & PATIENT PREFERENCE RESEARCH

W15: BEYOND PATIENT COMPLIANCE AND ADHERENCE TO TREATMENT Room 325

Discussion Leaders: Yi Han, PhD, MBA, Executive Vice President, Market Access and HEOR, Cello Health, Yardley, PA, USA; Hengjin Dong, PhD, Executive Director, Center for Health Policy Studies, School of Public Health, Zhejiang University, Hangzhou, China; Bruce C.M. Wang, PhD, Chief Executive Officer, Elysia Group Ltd, Taipei, Taiwan; Boxiong Tang, MD, PhD, Senior Director, Global Health Economics and Outcomes Research, Teva Pharmaceutical, Frazer, PA, USA

PURPOSE: Optimizing treatment adherence and compliance is a well-recognized—but often overlooked—objective to improve management of chronic diseases. The next research frontier is to link improved treatment adherence and compliance directly to enhanced clinical and economic outcomes, and hence to demonstrate additional value. This workshop acquaints participants with: 1) the current research framework for adherence and compliance research; and 2) emerging methodologies to quantify associated outcomes.

DESCRIPTION: Treatment adherence and compliance constitute one of the most consequential topics in disease management. The World Health Organization (WHO) defined adherence as “the extent to which a person’s behaviour-taking medication, following a diet, and/or executing lifestyle changes-corresponds with agreed recommendations from a health care provider.” Real-world adherence to treatment is very poor, as many studies have consistently demonstrated. For instance, a 2016 paper reported compliance to hypertension treatment in rural China is only 21.3%. Emerging product features have been developed, and healthcare programs (e.g. counseling, education) undertaken, to augment adherence. Healthcare policy decision makers are now challenged to balance the benefits of efforts to enhance adherence (and compliance) against the costs of these initiatives. To support evidence-based healthcare policy, researchers need to transcend merely measuring and comparing adherence and compliance. This workshop is designed to: 1) consider the most recent advances in evaluating the outcomes of measures to improve treatment compliance/adherence; 2) offer distinct perspectives from pharmaceutical-company representatives and third-party payers on adherence/compliance; and 3) apply real-world evidence to more effectively evaluate the impact of adherence/compliance-promoting strategies on chronic disease management. Workshop participants will acquire a more systematic understanding of approaches to advance their research in the field and hence better inform their healthcare decision making.
F1: HEALTH TECHNOLOGY ASSESSMENTS IN UNIVERSAL HEALTH COVERAGE

Moderator: Jitendar Sharma, PhD, CEO, Andhra Med Tech Zone (AMTZ) and Head, Division of Healthcare Technology & Director, WHO Collaborating Center for Priority Medical Devices, National Health Systems Resource Centre, Ministry of Health & Family Welfare, New Delhi, India

Speakers: Kun Zhao, MD, PhD, Professor & Director, Division of Health Policy Evaluation and Technology Assessment, China National Health Development Research Center, National Health and Family Planning Commission (NHFPC), Beijing, China; Joanne Yoong, PhD, Senior Economist, University of Southern California and Associate Professor, National University of Singapore, Singapore; Surachat Ngorsuraches, PhD, Associate Professor, College of Pharmacy, South Dakota State University, Brookings, South Dakota, USA and Former Associate Professor, Faculty of Pharmaceutical Sciences, Prince of Songkla University, Songkhla, Thailand

DESCRIPTION: With a growing commitment to pursuing universal health coverage (UHC) in Asian countries and universal coverage in the face of rising costs of health technologies, health technology assessment (HTA) has become increasingly important in informing universal coverage decisions given limited resources. How can HTA be applied in the payment system reform, price-setting and reimbursement of pharmaceuticals, and rational use of high technology to inform UHC-related policy decisions? This forum will discuss the role of HTA in UHC, the potential barriers and enablers for utilizing HTA in UHC policy making. Knowledge and experience will be shared among Asian countries.

Presented by the ISPOR Asia Consortium Health Technology Assessment Agencies, Health Care Policymakers & Payers Committee

F2: INTEGRATING EVIDENCE-BASED AND COST-EFFECTIVE COMPLEMENTARY AND ALTERNATIVE MEDICINE INTO THE HEALTH CARE SYSTEMS IN ASIA

Moderator: Namkwen Kim, KMD, MPH, PhD, Professor, Pusan National University School of Korean Medicine and Director, Monitoring Center for Korean Medicine and Western Collaboration, Pusan National University Korean Medicine, Yangsan, Korea

Speakers: Ming Hu, PhD, Professor & Director, Pharmaceutical Policy & Pharmaceconomics Research Center, West China School of Pharmacy, Sichuan University, Chengdu, China; Hwee Ling Koh, PhD, Associate Professor, Department of Pharmacy, National University of Singapore, Singapore; Wendy Wong, PhD, Assistant Professor, Hong Kong Institute of Integrative Medicine, Assistant Professor, School of Chinese Medicine and Deputy Chief Chinese Medicine Practitioner, Integrative Medical Centre, Faculty of Medicine, The Chinese University of Hong Kong, Hong Kong, China; Donghyo Lee, DKM, PhD, Assistant Professor, College of Korean Medicine, Woosuk University, Jeonju, Jeonbuk, Korea

DESCRIPTION: Complementary and Alternative Medicine (CAM) therapies have been used thousands of years in Asia, and have made great contributions to human health. There has been a consistently growing trend in their use globally. However, they are lacking scientific evidence on clinical efficacy, safety, effectiveness, and cost-effectiveness to support their use, and they are not well-established in terms of short- and long-term benefits and risks. How can we address this knowledge gap and overcome barriers in incorporating CAM into mainstream health care in order to provide real value in health care and meet the challenge of cost, access, and quality? This forum aims to promote scientific investigation of CAM and evidence-based and value-based CAM practice in Asia. The challenges, successes, and lessons learned will be shared among nations.

Presented by the ISPOR Asia Consortium Complementary and Alternative Medicine (CAM) Working Group

F3: BIG DATA IN ASIA-PACIFIC – A VALUABLE RESOURCE FOR BETTER HEALTH CARE DECISIONS: EXPERIENCES AND LESSONS LEARNED IN AUSTRALIA, JAPAN, SINGAPORE, SOUTH KOREA, AND TAIWAN

Moderator: Libbey Roughhead, PhD, Director & Research Professor, Quality Use of Medicines and Pharmacy Research Centre, University of South Australia, Adelaide, SA, Australia

Speakers: Bruce Crawford, MA, MPH, Senior Principal, Real-World Evidence Solutions, Japan & APAC, IMS Japan K.K., Minato-ku, Tokyo, Japan; Hwee Lin Wee, PhD, Assistant Professor, Pharmacy, National University of Singapore, Singapore; Seungjin Bae, ScD, Associate Professor, Pharmacoconomics and Outcomes Research, Ewha Women’s University, Seoul, Korea; Chee-Jen Chang, PhD, MS, Director, Clinical Informatics and Medical Statistics Research Center and Professor, Graduate Institute of Clinical Medical Sciences, Chang Gung University, TaoYuan, Taiwan

DESCRIPTION: Uses of big data for analytics in Asia-Pacific for health care are increasing quickly. During this forum, practitioners from Australia, Japan, Singapore, South Korea, and Taiwan will present different types of analyses that use big data, the available databases, and the examples of its use in health economics, outcomes research, and epidemiology.

Presented by the ISPOR Asia Consortium
F4: VALUE IN HEALTH REGIONAL ISSUES: GUIDANCE ON WRITING GOOD SCIENTIFIC MANUSCRIPTS FOR PUBLICATION Room 326
Moderator: Bong-Min Yang, PhD, Professor, School of Public Health and Executive Director, Institute of Health and Environment, Seoul National University, Seoul, South Korea
Speakers: Nathorn Chaiyakunapruk, PharmD, PhD, Professor of Health Economics, School of Pharmacy, Monash University Malaysia, Selangor, Malaysia; Jianfei (Jeff) Guo, PhD, RPh, Professor, University of Cincinnati Health Academic Center, Cincinnati, OH, USA; Kenneth K. C. Lee, MPhil, PhD, Professor, School of Pharmacy, Monash University Malaysia, Subang Jaya, Malaysia; Shu Chuen Li, PhD, Professor, School of Biomedical Sciences and Pharmacy, The University of Newcastle, Newcastle, Australia
DESCRIPTION: Value in Health Regional Issues focusing on Asia (ViHRI Asia) is an ISPOR scientific regional journal which publishes manuscripts that represent the work of health economics and outcomes research and its use in health care decisions in the Asia-Pacific region. This forum will present information on how to write quality manuscripts and the guidelines for submissions as well as review examples of both excellent manuscripts and poor manuscripts. The editors will also provide direct feedback to prospective authors who are considering submitting manuscripts to ViHRI Asia.
Presented by the Value in Health Regional Issues (ViHRI) Editorial Board (Asia)

F5: PHARMACOECONOMIC GUIDELINES IN CHINA, INDIA, INDONESIA, MALAYSIA, AND THAILAND Room 325
Moderator: Jiuhong Wu, PhD, PharmD, Professor, The 306th Hospital of PLA, Beijing, China
Speakers: Mahendra Kumar Rai, MPharm, Group Leader & SME, HEOR & Real-World Evidence, Market Access & HEOR, Tata Consultancy Services, Mumbai, India; Amad Fuad Afzhal, PhD, Director, Center for Socio-Economic Studies in Pharmacy, Cirendeu, Indonesia; Syed Aljunid, MD, PhD, Professor, International Casemix and Clinical Coding Centre, Faculty of Medicine, National University of Malaysia, Kuala Lumpur, Malaysia; Sitaporn Youngkong, PhD, Lecturer, Department of Pharmacy, Faculty of Pharmacy, Mahidol University, Bangkok, Thailand
DESCRIPTION: Some countries in Asia have specified Pharmacoeconomics (PE) Guidelines on how to perform a PE Analysis while other countries are in the process of developing PE Guidelines. The purpose of this forum is to present the latest developments and application of PE Guidelines in China, India, Indonesia, and Malaysia and to share the challenges, successes and lessons learned among nations.
Presented by the ISPOR Regional Chapters in China, India, Indonesia, and Malaysia

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VALUE OF NEW DIRECT-ACTING ANTIVIRALS TO TREAT HEPATITIS C INFECTION

Hepatitis C virus (HCV) infection is a known leading cause of liver-related morbidity and mortality, and effective antiviral treatments can result in a sustained virologic response (SVR), the surrogate marker for a cure. Direct-acting antiviral (DAA) is a newly developed class of HCV medicines. The new DAAAs have become the new standard of care in many Western countries because of their value to patients and health care systems despite prices. The progress of HCV treatment shifting from interferon-containing regimens to interferon-free DAA regimens in Asia is also emerging. It is important to be able to evaluate the cost-effectiveness of new DAAs in Asian countries given different resource levels. This symposium will address the key drivers affecting treatment choice and cost-effectiveness of new DAAs in Asia and will summarize the health technology assessment (HTA) system and health economic evidence of HCV DAA treatments in Japan.

Moderator: Yen-Huei (Tony) Tarn, PhD, MS, Associate Professor, School of Pharmacy, Kaohsiung Medical University, Kaohsiung City, Taiwan

Speakers:
Dan Yock Young, MBBS, PhD, MMed, MRCP, FAMS, FRACP, Associate Professor, University Medicine Cluster, National University Hospital of Singapore, Singapore
Ataru Igarashi, PhD, Associate Professor, Drug Policy & Management, University of Tokyo, Graduate School of Pharmaceutical Sciences, Tokyo, Japan

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PORTFOLIO MANAGEMENT — A NEW APPROACH IN HEALTH ECONOMICS TO SUPPORT DECISION MAKERS ON VACCINE INTRODUCTION AT THE NATIONAL LEVEL

Many countries currently struggle with the prioritization of introducing new vaccines due to budget constraints and the absence of focus about which public health goals to achieve. This educational symposium will share with participants the rationale, concepts, and real world examples of a portfolio management model. This model was developed by GSK Vaccines to define specific health and economic goals to be reached with immunisation while working under specific constraints. It has been applied to support decision makers from both developed and developing countries on how to introduce new vaccines rationally. More advanced thinking would also be shared with regards to the link between portfolio management and return on investment of vaccines.

Moderator: Sharon Zhang, PhD, Director, Epidemiology & Health Outcomes, Asia Pacific Vaccines, GlaxoSmithKline, Middlesex, United Kingdom

Speakers:
Baudouin Standaert, MD, PhD, Director, Health Economics, Global Vaccines, GlaxoSmithKline, Middlesex, United Kingdom
Mark Connolly, PhD, Senior Research Scientist, PharmacoEconomics and PharmacoEpidemiology Unit, University of Groningen, The Netherlands and Managing Director, Global Market Access Solutions, The Netherlands
ENGAGING PATIENTS IN HEALTH TECHNOLOGY ASSESSMENT AND ACCESS DECISIONS TO IMPROVE QUALITY OF PATIENT CARE

Engaging patients in value-based health care decision making is an important part of patient-centered care. Informed and engaged patients have a vital role to play in improving quality of health care. Health technology assessment (HTA) has become an integral part of decision making on a patient’s access to innovative medicines in many countries. There is an increasing trend to engage patients in HTA and reimbursement decision making processes. The focus of this symposium is to share experiences in engaging patients in health care decision making and to discuss ways to improve a patient’s access to innovative medicines and ultimately to improve quality of patient care in Asia-Pacific.

Moderator: Gordon Liu, PhD, PKU Yangtze River Scholar Professor of Economics, Peking University, Beijing, China

Speakers:
Simon Fifer, PhD, Founding Partner & Director, CaPPRe - Community and Patient Preference Research Pty Ltd, Sydney, Australia
Isao Kamae, MD, DrPH, Project Professor, University of Tokyo, Tokyo, Japan
Dong-Churl Suh, RPh, MBA, PhD, Professor & Director, Chung-Ang University, Seoul, Korea
Raoh-Fang (Jasmine) Pwu, PhD, Senior Investigator, National Taiwan University, Taipei, Taiwan

MANAGING HIGH-COST INNOVATIVE MEDICINES IN ASIA: WHAT ARE THE LATEST TRENDS AND REAL-WORLD PRACTICE?

After the recent trend towards economic growth in the Asia-Pacific region, health authorities are taking tough measures that impact health care expenditure. Access to health technologies including medicines has become increasingly challenging. At the same time, many countries in Asia have gone through the health care reforms, addressing the difficulties faced ahead. This educational symposium will summarize new trends of HTA/health care systems in the Asia-Pacific region, in terms of health reforms and access to medicines, unveiling the major forces driving such changes. In addition, this symposium will discuss the emerging practice of managing high cost innovative drugs, including self-paying patients. Experts in the region will share their opinions about the new opportunities that could play an important role in the current situation.

Moderator: Riad Dirani, PhD, Vice President, GHEOR, Teva, Frazer, PA, USA

Speakers:
Chee Jen Chang, PhD, Professor, Graduate Institute of Clinical Medical Science, Chang Gung University, Tao-Yun, Taiwan
Jianwei Xuan, MD, PhD, Director, Health Economic Research Institute, Sun Yat-sen University, Guangzhou, China
Shu Chuen Li, PhD, Professor, School of Biomedical Sciences and Pharmacy, The University of Newcastle, Newcastle, Australia
HOW REAL-WORLD EVIDENCE (RWE) CAN ENABLE PHARMA TO PARTNER IN HEALTH CARE DELIVERY

Real-world evidence (RWE) is increasingly prominent on the global stage yet just at early stage within the Asia-Pacific region. It is helping pharmaceutical manufacturers, reimbursement decision makers, HTA organizations, and clinicians to better understand diseases, patient treatment, and outcomes. Given the current state of RWE in Asia-Pacific countries compared to the USA or European markets, there is increasingly sense of urgency to find ways of developing useful RWE in this region.

Decision makers are seeking more evidence to support their decisions, putting more pressure on industry to develop re-usable data infrastructures, novel approaches to data generation, and work in a more collaborative nature to help integrate disparate data while maintaining patient privacy.

In this symposium, we will provide an overview of the need for RWE and availability of real-world data in the region today but focus on advances and methodologies that would help companies increase their generation of RWE there. Novel approaches include partnerships involving and aligning different health care stakeholders as well as “mosaic” and enriched approaches.

The symposium will include presentations from senior representatives of the pharmaceutical industry, research institutions, and IMS Health.

INTRODUCTION: THE INCREASING NEED FOR REAL-WORLD EVIDENCE IN ASIA PAC (RWE)
Moderator & Speaker: Bruce Crawford, MA, MPH, Senior Principal, Real-World Evidence Solutions, Japan & APAC, IMS Japan K.K., Minato-ku, Tokyo, Japan

INCREASING DEMAND FOR EVIDENCE BY PAYERS IN ASIA – AN INDUSTRY PERSPECTIVE ON POSSIBLE WAYS FORWARD TO CREATE RWE IN THE REGION
Speaker: Aileen Dualan, MD, MS, Chief Scientific Officer, Asia Cluster, Novartis Asia Pacific Pharmaceuticals, Singapore

NOVEL PARTNERSHIP APPROACHES TO GENERATE RWE ACROSS ASIA PAC
Speaker: Christopher J. King, MBA, Oncology Head, Asia Pacific & China, IMS Health, Singapore

NOVEL METHODOLOGICAL APPROACHES TO ENRICH EXISTING DATA ASSETS
Speaker: Karen Wai, MBBChBAO, MBA, Vice President & Regional Managing Director, Asia Pacific Real-World & Late Phase Research, Quintiles, Singapore

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MONDAY, 5 SEPTEMBER
1:15PM-2:15PM

SUMMIT 1

HOW REAL-WORLD EVIDENCE (RWE) CAN ENABLE PHARMA TO PARTNER IN HEALTH CARE DELIVERY

MONDAY, 5 SEPTEMBER
2:30PM-3:30PM

SUMMIT 1

PRICING DEVELOPMENTS IN ASIA-PACIFIC – DOES COMPARATOR-REFERENCED PRICING HAVE A FUTURE?

Funding medicines in a sustainable manner is an enduring health policy debate in many countries around the world. To ensure sustainability, a balance must be achieved between access to new generation therapies and cost containment. Recent years have seen innovative approaches to pricing in order to ensure broad access to ground-breaking therapies including countries that use comparator-referenced pricing. These include various forms of risk sharing arrangements/managed entry schemes and other ‘innovative’ pricing arrangements, many of which are confidential. This session will discuss some of the recent trends in pricing for pharmaceuticals from multiple perspectives – to understand the current challenges and the future landscape. Speakers will present differing perspectives including academia, government, and industry.

Moderator: Adèle Weston, PhD, Executive Vice President & Senior Scientist, HEOR, Asia Pacific, Life Sciences, Optum, Lilyfield, Australia

Speakers:
Andrew Mitchell, MMedSci, Strategic Adviser, Evaluation, Australian Government Department of Health, Canberra, Australia
Kenneth Lee, MPhil, PhD, Professor of Pharmacy, Monash University Malaysia, Kuala Lumpur, Malaysia
Cammy Yuen, BPharm, PostGradDip, Japan, Asia Pacific Director for Market Access and Policy, Abbvie, Sydney, Australia
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Tuesday, 6 September
7:15AM-8:15AM

HEALTH ECONOMIC ASSESSMENT ON TARGET THERAPY ON COLORECTAL CANCER TREATMENT

This session will share information about Erbitux cost-effectiveness analysis for mCRC treatment and how it is helping the clinical experts and economists to better understand the benefit from personalized therapy and gene test.

Moderator/Speaker: Shanlian Hu, MS, MD, Senior Consultant, Shanghai Health Development Research Center, Shanghai, China

Speaker: Gordon G. Liu, PhD, Yangtze River Scholar Professor of Economics Peking University (PKU) National School of Development (NSD) and Director, PKU China Center for Health Economic Research (CCHER), Beijing, China

Bin Wu, PhD, Associate Professor, Renji Hospital, School of Medicine, Shanghai Jiaotong University, Shanghai, China

Tuesday, 6 September
1:30PM-2:30PM

HEALTH TECHNOLOGY ASSESSMENT POLICY SURROUNDING BIOLOGIC TREATMENTS IN IMMUNOLOGY: CHALLENGES AND OPPORTUNITIES

Health technology assessment of biologic treatments in the Asia-Pacific region faces challenges and opportunities which vary by country within the region. HTA policies have been developed that addresses affordability, however, the result is restricting access or imposing out of pocket cost burdens on those least able to afford treatments. The aim of the symposium is to discuss the opportunities and challenges facing assessment of higher cost biologic treatments, focusing on treatments for immunological conditions from the perspectives of China, Korea, and Taiwan.

Moderator: David Grainger, BSc, Director, Global Public Policy, Eli Lilly and Company, Sydney, Australia

Speakers: Eui-Kyung Lee, PhD, Deputy Director, Astellas Pharma Inc., Seoul, Korea

Chee Jen Chang, PhD, Professor, Graduate Institute of Clinical Medical Science, Chang Gung University, Tao-Yun, Taiwan

Shan Lian Hu, MSc, Professor, Shanghai Health Development Research Centre, Shanghai, China

Tuesday, 6 September
2:45PM-3:45PM

THE ROLE OF HTA IN HEALTH CARE DECISION MAKING

The goal of the session is to provide the audience with information and examples about real-world experiences of how health technology assessment (HTA) can be applied in health care decision making broadly in different aspects of the health care ecosystem, with a goal of improving the efficiency of health care resource allocation. This symposium will address ‘evolution and application of HTA beyond pharmaceuticals and devices’, ‘transparency of decision making,’ and other relevant areas. The use of HTA and translation of assessments in decision making (through examples in different settings/countries) will resonate with the audience and help to inform their decision making process within their own local environment.

Moderator: Yang Xie, PhD, MA, MPH, Regional HEOR Lead for Asia Pacific and Emerging Markets, New York, NY, USA

Speakers: Louis Garrison, PhD, Professor, Pharmaceutical Outcomes Research & Policy Program, Department of Pharmacy, University of Washington, Seattle, WA, USA

Jasmine Pwu, PhD, Senior Investigator, Health Data Research Centre, National Taiwan University, Taipei, Taiwan

Kun Zhao, MD, MHSc, Director of HTA, Division of Health Policy Evaluation and Technology Assessment, China National Health Development and Research Center, Beijing, China
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Please see page 6 for Conference Program Committee Chairs.
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**Lou P. Garrison, Jr., PhD**

Louis P. Garrison, Jr., PhD is a Professor in the Pharmaceutical Outcomes Research & Policy Program in the School of Pharmacy and Adjunct Professor in the Departments of Global Health and Health Services at the University of Washington, where he joined the faculty in 2004. He also co-directs the Global Medicines Program in Global Health.

For the first 13 years of his career, Dr. Garrison worked in non-profit health policy research, first at the Battelle Human Affairs Research Centers (Seattle), and then at the Project HOPE Center for Health Affairs (Virginia) where he was the Director from 1989-1992. Following this, he worked as an economist in the pharmaceutical industry for 12 years. From 2002-2004, he was Vice President and Head of Health Economics & Strategic Pricing in Roche Pharmaceuticals, based in Basel, Switzerland.

Dr. Garrison received a BA in Economics from Indiana University and a PhD in Economics from Stanford University. He has authored more than 100 publications in peer-reviewed journals.

From 2007-2009, Dr. Garrison served on the ISPOR Board of Directors. He co-chaired two ISPOR Good Practice Task Forces (Real-World Data, and Performance-Based Risk-Sharing Arrangements), chaired the ISPOR Health Science Policy Council from 2012 to 2015, and is Faculty Advisor for the UW ISPOR Student Chapter.

**ISPOR ASIA CONSORTIUM EXECUTIVE COMMITTEE CHAIR BIOGRAPHICAL INFORMATION**

**Isao Kamae, MD, DrPH**

Isao Kamae, MD, DrPH is a Project Professor of Graduate School of Public Policy at the University of Tokyo. Prior to this, he was Professor of Keio University, Graduate School of Health Management in Tokyo, Japan from 2007-2012. He also serves as a part-time Research Director at the Canon Institute for Global Studies, as well as a senior faculty at Meiji Institute for Global Affairs in Tokyo. Dr. Kamae was the first Japanese to be awarded a Doctor of Public Health in health decision sciences from Harvard University in 1995. He has researched and published reports such as overview of principles of best practice HTA systems, review of reimbursement & pricing in Japan and the future of HTA in Japan.

From 2004-2006 he served as the first ISPOR Board member of Asian origin, and is also one of the founding members of the ISPOR Asia Consortium and the founding president of the ISPOR Japan Chapter. He was Chair-Elect 2014-2016 and is currently Chair, ISPOR Asia Consortium Executive Committee. He served as a co-chair of the International Scientific Committee and the Local Planning Committee for the HTAi 2016 Tokyo and is also a member of the SMDM Asia-Pacific Advisory Council.

**CONFERENCE PROGRAM COMMITTEE CO-CHAIRS BIOGRAPHICAL INFORMATION**

**Wai Keung Chui, PhD**

Wai Keung Chui, PhD joined the Department of Pharmacy at the National University of Singapore (NUS) as a lecturer in 1991, and today he holds the designation of Associate Professor at the university. He was appointed as Head of the Pharmacy Department at the NUS from 2013-2015, and in this capacity, he was appointed as the Ex-Officio of the Singapore Pharmacy Council by the Ministry of Health.

Dr. Chui's research interests include drug discovery and his mission is to develop new small molecular chemical entities into drug-like substances with therapeutic potential in cancer and antimicrobial therapy. He also has a special interest in Pharmacy Education and Professional Development and is actively engaged by the Singapore Pharmacy Council for educational and training programmes review and development.

Dr. Chui sits on several international committees, including the International Pharmaceutical Federation Public Policy Working Group (2005-2009) and the World Health Organization Expert Committee in International Non-Proprietary Name for Pharmaceutical Substances (1999-present). He is also a founding Executive Committee Member of the Western Pacific Pharmaceutical Forum (2001-present). Dr. Chui received his BSc (Hons) from the National University of Singapore and a PhD in Medicinal Chemistry from Aston University.

**Ahmad Fuad Afdhal, PhD**

Ahmad Fuad Afdhal, PhD is an accomplished researcher, author, business executive, and academic leader of the College of Pharmacy, Indonesia. He earned his PhD in Social and Administrative Pharmacy from the University of Minnesota, USA and has demonstrated outstanding leadership in academia, business, and international research in pharmacoconomics.

Dr. Afdhal is the former president of the National Institute of Science and Technology in Jakarta, where he also served as Dean of the Faculty of Mathematics and Natural Science and Head of the Department of Pharmacy. He is widely recognized for his research on quality-of-life and cost-effectiveness analyses of typhoid treatments, hepatitis C, and hypertension. Additionally, Dr. Afdhal has authored five professional books and numerous articles in newspapers and magazines, and he received the Distinguished Leadership Award for Internationals from the University of Minnesota.
Dr. Afdhal also has a long record of professional accomplishments in Indonesia. He is Chief Executive Officer of the Center for Socio-Economic Studies in Pharmacy, as well as Chief Executive Officer of STRATOS, PT Tiga Cahya Fortuna, and AFA Communications. He has served as National Chair for the International Public Relations Association, Chairman of Ikatun Alumni ITB Angkatar, and Executive Committee member of the International Society for Pharmacoeconomics and Outcomes Research (ISPOR) Asia Consortium. Currently, he is President of his local ISPOR chapter.

Syed Mohamed Aljunid, MD, PhD
Syed Aljunid, MD, PhD is a Professor of Public Health Medicine and Health Economics of the National University of Malaysia (UKM). He is currently Head of the International Centre for Casemix and Clinical Coding, a centre of excellence in Casemix system of UKM. Prior to this he served as a Senior Research Fellow of the United Nations University International Institute for Global Health. His main interest is in the strengthening of health care systems of developing countries through research and development in health policy, health economics, and financing.

He is currently involved in supporting a number of developing countries to develop and implement the Casemix system for provider payment methods under Social Health Insurance programmes. He also serves as Co-Chair of the Morbidity Technical Advisory Group of ICD-11 Revision of World Health Organisation-Family of International Classification and as Executive Council Member of Patient System Classification International. He is Founding President of the Malaysian Health Economics Association and Malaysian Society of Pharmacoeconomics and Outcome Research and Past-President of the Public Health Medicine Specialists’ Association of Malaysia.

Dr. Aljunid has published more than 170 journal articles, book chapters, and scientific reports, and has presented more than 250 papers at local and international conferences, seminars, and workshops. He received his MD from the National University of Malaysia, MS in Public Health from the National University of Singapore, and PhD in Health Economics and Financing Programme from the London School of Hygiene and Tropical Medicine.

Nancy S. Berg
Nancy S. Berg is Chief Executive Officer (CEO) and Executive Director of the International Society for Pharmacoeconomics and Outcomes Research (ISPOR), the leading global scientific and educational organization for health economics and outcomes research. Ms. Berg has over 30 years of experience in scientific/technical association leadership, and has been an entrepreneur and business consultant to both commercial and nonprofit organizations. At ISPOR, Ms. Berg is responsible for the global strategic direction and leadership of the Society. She has led the organization, in concert with the Board of Directors, to design and implement a new strategic plan, mission, and vision to guide the Society into the future.

Previously, Ms. Berg led the International Society for Pharmaceutical Engineering (ISPE) as President and CEO. During her tenure with ISPE, Ms. Berg was the architect of the Society's Strategic Plan, focusing ISPE's energies and expertise on high-value initiatives related to drug shortages, quality metrics, global manufacturing quality, facility and supply chain issues, and patient experiences in clinical trials. Prior to her role at ISPE, Ms. Berg served as Executive Director and CEO of the Society of Manufacturing Engineers (SME). She also previously founded a strategic and business development consultancy company.

Throughout her career, Ms. Berg has been recognized as a groundbreaking leader with a dynamic, hands-on style. During her tenure with SME, she was the youngest person ever to head a global technical/engineering organization. She has received a number of leadership awards including being named among the “PM360 ELITE” most influential leaders in the health care industry, PharmaVOICE 100 list of most inspirational leaders in the health care industry, one of Detroit’s “Top 100 Most Influential Women” by Crain’s Detroit Business, and one of “Michigan’s Top 50 Women” by Corp! Magazine. She also received the “Women of Achievement Award, Business and Industry” by the YWCA of Western Wayne County, Michigan.

Ms. Berg has been engaged in education and business issues in the U.S. and international levels. She has served on many government initiatives involving business, community, development, growth, revitalization, and labor issues. She is a supporter of the Leukemia and Lymphoma Society’s Team in Training Program cycling events and a patron of many other charities. Ms. Berg is a graduate of the University of Michigan-Flint.

Yoke Sin Chong, PhD
Yoke Sin Chong, PhD is CEO of Integrated Health Information Systems (IHIS), the shared services technology organization of the public health care system in Singapore. IHIS manages and operates highly integrated medical and administrative systems across Singapore’s public health care sector.

Dr. Chong is also Chair of the Health Information Management Systems Society (HIMSS) Asia Governing Council that governs the activities of the HIMSS Society for the Asian countries, Australia, and New Zealand. She played a key role in driving the attainment of the global HIMSS EMRAM Stage 6, an international benchmark for advanced technology used to improve patient care, for six out of eight hospitals and two outpatient institutions in Singapore, which makes Singapore’s attainment the highest among public health care systems worldwide today.
Dr. Chong is a Fellow of the HIMSS and a Certified Healthcare Informatics Management Professional. She is also a Board member of KLAS, the independent benchmarking service for software in the health care industry globally. Dr. Chong is also Vice President and fellow of the Singapore computer society and plays an active role in promoting professional development of the IT professionals in Singapore. She sits on various boards in the health care, government agency, and education sectors. She received a PhD in Chemistry from the National University of Singapore.

**Christopher Chute, MD, DrPH**

Christopher Chute, MD, DrPH is the Bloomberg Distinguished Professor of Health Informatics, Professor of Medicine, Public Health, and Nursing at Johns Hopkins University, and Chief Research Information Officer for Johns Hopkins Medicine. He received his undergraduate and medical training at Brown University, internal medicine residency at Dartmouth, and doctoral training in Epidemiology at Harvard. He is Board Certified in Internal Medicine and Clinical Informatics and a Fellow of the American College of Physicians, the American College of Epidemiology, and the American College of Medical Informatics. Dr. Chute's career has focused on how we can represent clinical information to support analyses and inferencing, including comparative-effectiveness analyses, decision support, best evidence discovery, and translational research. He became Founding Chair of Biomedical Informatics at Mayo in 1988, retiring from Mayo in 2014, where he remains an Emeritus Professor of Biomedical Informatics. He has been PI on a large portfolio of research including the HHS/Office of the National Coordinator SHARP (Strategic Health IT Advanced Research Projects) on Secondary EHR Data Use, the ONC Beacon Community, the LexGrid projects, Mayo's CTSA Informatics, and several NIH grants including one of the eMERGE centers from NGHRI, which focus upon genome wide association studies against shared phenotypes derived from electronic medical records. He has also been active on many HIT standards efforts and currently chairs the World Health Organization ICD-11 Revision.

**Takashi Fukuda, PhD**

Takashi Fukuda, PhD is Director of the Department of Health and Welfare Services at the National Institute of Public Health, Japan. Prior to this, Dr. Fukuda held several academic appointments at the University of Tokyo—first in the Graduate School of Medicine (Assistant Professor of Health Administration [1995-2000] and Associate Professor of Pharmacoeconomics [2001-2006]), then in the School of Public Health (Associate Professor of the Department of Health Economics and Epidemiology Research [2007-2011]). Dr. Fukuda received his PhD degree from the Graduate School of Medicine, the University of Tokyo. His major research areas are health care economics, health care administration, and pharmacoeconomics.

**Graham Harrison, PhD**

Graham Harrison, PhD trained in New Zealand in medicine, public health, and public policy. While practicing in New Zealand, he was a recognized specialist in public health medicine and a Fellow of the Australasian Faculty of Public Health Medicine and the New Zealand College of Public Health Medicine. Dr. Harrison joined the World Health Organization (WHO) in 2000 as the Regional Adviser in Health Systems Development at the WHO Regional Office for the Western Pacific, based in Manila, Philippines, serving 37 countries and areas. In 2006, he was reassigned to Viet Nam as the health systems team leader, and for 2011 and early 2012, he concurrently served as the acting WHO Representative to Viet Nam. In August 2012, he was reassigned to serve as the WHO Representative to Malaysia, Brunei Darussalam, and Singapore, and he is currently based in Kuala Lumpur.

**Louisa Jorm, PhD**

Louisa Jorm, PhD, is Foundation Director of the Centre for Big Data Research in Health at UNSW Australia. From 2007-2014, she was Foundation Professor of Population Health at the University of Western Sydney and Principal Scientist at the Sax Institute. Before this, she spent more than 15 years in service and government roles. Having worked in senior leadership roles in both government and academia, she has unique insights into both sectors and demonstrated success in research translation.

Professor Jorm is an Australian leader in health “big data” research and is a high-profile advocate for more and better use of routinely collected health data for research. She has played a leading role in establishing major infrastructure for “big data” health research in Australia, including the NSW/ACT Centre for Health Record Linkage, the Population Health Research Network, the 45 and Up Study, and the Secure Unified Research Environment, a facility that benefits researchers nationally by providing secure remote access to linked health data. Professor Jorm’s research achievements in the last five years include more than 60 peer-reviewed publications, securing more than 10 million Australian dollars in peer-reviewed grant funding from national granting bodies, and a wide range of commissioned research for health policy agencies. Her Indigenous Health Outcomes Patient Evaluation (IHOPE) study was recognized as one of the Australian National Health and Medical Research Council’s “Ten of the Best” projects in 2015.
Trish Williams, PhD
Trish Williams, PhD is the CISCO Chair of Digital Health Systems at Flinders University in South Australia, having moved from her position as Associate Dean, Computing and Security, at Edith Cowan University, Western Australia in July. Her role promotes the development of collaborative research across computer science and health, and across the university and industry. Dr. William's own research is in the security of health information and includes patient safety in medical devices and health software. As International Co-Chair of HL7 Security, and the Australian expert on security, software, and safety health informatics ISO standards (ISO Technical Committee 215), she builds on over 30 years of experience in health products regulation to enhance regulatory capacity and scientific excellence in Asia-Pacific. Dr. Lim is also Chairman of the Singapore Clinical Research Institute, a national Academic Research Organization under MOH Holdings, Singapore.
Kun Zhao, MD, PhD, MHSc
Kun Zhao, MD, PhD, MHSc is Director of the Division of Health Policy Evaluation and Technology Assessment in the National Health and Family Planning Commission of China.

Dr. Zhao received her MD in clinical medicine from China Medical University and MHSc in health care and epidemiology from the University of British Columbia in Canada. She was a visiting scholar in the Toronto Health Economics and Technology Assessment Division in Canada and a research associate in the Occupational Health and Safety Agency for Healthcare in BC in Canada.

Since 2007, Dr. Zhao has been playing the leading role in HTA training programs in China and, as the principal investigator, undertakes a series of HTA projects for the Ministry of Health. Since 2010, Dr. Zhao has been working with NICE international as a principal investigator to conduct a pilot study of optimizing diagnosis and treatment technology accompanying provider payment reform in rural China. Dr. Zhao is also a member of ACE of Disease Control Priorities, Third Edition, ISPOR HTAnetAsia Chair (2014-2016), ISPOR HTA Council committee member, and the core author of a university textbook on China HTA and Program Evaluation. She has published more than 30 papers in peer-review journals.

Fei-Li Zhao, PhD
Fei-Li Zhao, PhD is Senior Research Fellow at the Centre for Health Economics Research and Evaluation, Business School, University of Technology Sydney, Australia.

For the paper, Burden of Disease Studies in the Asia-Pacific Region: Are There Enough being Performed to Provide for Evidence-Based Health Policy? Value Health Regional Issues 2013;2:152-159.

Dr. Zhao is a health economist and has done work in both academia and industry. Her research interests include economic evaluation using trial and real-world data, quality-of-life research and preference measurement, and health services research in Asia-Pacific countries. Dr. Zhao regularly undertakes research on behalf of the government and non-government agencies, providing high quality, expert health technology assessment advice and support to the Pharmaceutical Benefits Advisory Committee for national reimbursement decisions for pharmaceuticals and vaccines in Australia.

Dr. Zhao has presented her research internationally and has published a series of papers on high-profile journals, such as Value in Health, Pharmacoeconomics, PLOS One, Medical Care, Health Quality of Life Outcomes and BMC Pregnancy and Childbirth.

**ABSTRACT**

**Objective:** To review published studies of Burden of Disease (BOD) performed in the Asia-Pacific (AP) region. **Method:** Overlapping strategy of searching four electronic databases was used to identify studies of BOD published during 1993-2009. The quality of identified studies was assessed according to the categories of burden reflected and scope of BOD information included. Chronological and regional distributions of research output were analyzed. **Results:** Among 524 articles identified for review, 27.7% (n =145) were classified as complete summary measures as being most informative BOD studies from health policy maker’s perspective and 72.3% (n = 379) as using only partial measures. Although an increasing trend of publication of BOD articles was observed, the quantity of publication was not commensurate with the number of diseases, especially for researches using summary measures. Unbalance of research output of BOD among different diseases areas and selected countries/regions was observed. **Conclusion:** The paucity of specific studies in AP region needs to be addressed. Furthermore, in order to improve the quality of research, a clear definition of BOD study and a uniform template for the research method from health policy-makers’ perspective would be necessary.

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