

REPORT OF THE VP- WORKING GROUPS & SIGS

Nancy Lorenzi

Part 1: Vice President for Working Groups Report

This report is divided into three parts. The first part is the VP for Working Groups Report, the second is the actual working group reports, and the third part is a list of the recommended motions.

One of the issues I faced as the new chair of the IMIA Working Groups revolved around the appointment dates for the chairs and official appointment letters. Several of the chairs informed me that they were never officially appointed, merely asked if they would be the chairperson. Others did not know if they were appointed for a specific term or indefinitely. In order to address this issue the first task was to develop a list of the dates of service as best as possible. Another effort was to send official appointment letters to the chairs from the IMIA President and Executive Director. All of the chairs appointed since I have been the VP have received letters. By working with Steve Huesing, this process is now systematic. The following lists represent first the IMIA chairs by working group number and second by dates of service. There are six working groups that have chairs whose terms end with the 2001 General Assembly meeting. There are motions in the third part of this report about new chairs.

Also, because the IMIA Working Group chairs carry so much personal responsibility for the success of the Working Group, it is important to acknowledge their leadership during their terms of service. Therefore, there is a recommendation to present an acknowledgement of their efforts as part of the annual General Assembly meeting.

IMIA Working Group Chairs and Dates of Service by Working Group Number

- WG 1—Health and Medical Informatics Education
 - Dr. Evelyn Hovenga (2001 to 2003), Dr. John Mantas (2001-2003)
- WG 2—Consumer Health Informatics
 - Dr. Alejandro (Alex) R. Jadad (2000-2003), Dr. Betty L. Chang (2000-2003), Dr. Gunther Eysenbach (2000-2003)
- WG 3— Intelligent Data Analysis and Data Mining
 - Dr. Riccardo Bellazzi (2000-2003), Dr. Blaz Zupan (2000-2003)
- WG 4—Data Protection in Health Information Systems
 - Prof. Ab R. Bakker (1995 to 2001)
- WG 5—Primary Health Care Informatics
 - Dr. Michael Kidd (1999-2003), Dr. H.C. Mullins (1999-2003)

- WG 6—Medical Concept Representation
 - Dr. Christopher G. Chute (1995-2001)
- WG 7—Biomedical Pattern Recognition
 - Dr. Christoph Zywietz (1998-2001)
- WG 8—Mental Health
 - Michael Rigby (2000-2003), Ann Sheridan (2000-2003)
- WG 9—Health Informatics for Development
 - Dr. Nora Oliveri (1992-2001)
- WG 10—Hospital Information Systems and Health Profession Workstations
 - Dr. Klaus Kuhn (2000-2003), Dr. Dario Giuse (2000-2003)
- WG 11—Dental Informatics
 - Dr. Yoo Wook-Sung (2000-2003), Dr. John Eisner (2000-2003)
- WG 13—Organizational and Social Issues
 - Dr. Bonnie Kaplan (1999-2002)
- WG 15—Technology Assessment and Quality Development in Health Informatics
 - Dr. Jan Talmon (1999-2002)
- WG 16—Standards in Health Care Informatics
 - Dr. Georges J.E. De Moor (1995-2001)
- WG 17—Computerized Patient Records
 - Dr. Johan van der Lei (1996-2001), Dr. Mark Musen (2000-2003)
- WG 18—Telematics in Healthcare
 - Dr. Regis Beuscart (1999-2002)
- Special Interest Group 1: Nursing
 - Dr. Virginia Saba (2000-2003)

IMIA Working Group Chairs—Expected End of Service Date

Chair Position Ends with the General Assembly Meeting 2001

- WG 4—Data Protection in Health Information Systems
 - Prof. Ab R. Bakker (1995 to 2001)
- WG 6—Medical Concept Representation
 - Dr. Christopher G. Chute (1995-2001)
- WG 7—Biomedical Pattern Recognition
 - Dr. Christoph Zywietz (1998-2001)
- WG 9—Health Informatics for Development
 - Dr. Nora Oliveri (1992-2001)
- WG 16—Standards in Health Care Informatics
 - Dr. Georges J.E. De Moor (1995-2001)
- WG 17—Computerized Patient Records
 - Dr. Johan van der Lei (1996-2001)

Chair Position Ends with the General Assembly Meeting 2002

- WG 13—Organizational and Social Issues
 - Dr. Bonnie Kaplan (1999-2002)
- WG 15—Technology Assessment and Quality Development in Health Informatics
 - Dr. Jan Talmon (1999-2002)
- WG 18—Telematics in Healthcare
 - Dr. Regis Beuscart (1999-2002)

Chair Position Ends with the General Assembly Meeting 2003

- WG 1—Health and Medical Informatics Education
 - Dr. Evelyn Hovenga (2000 to 2003), Prof. Dr. John Mantas (2000-2003)

- WG 2—Consumer Health Informatics
 - Dr. Alejandro (Alex) R. Jadad (2000-2003), Dr. Betty L. Chang (2000-2003), Dr. Gunther Eysenbach (2000-2003)
- WG 3—Intelligent Data Analysis and Data Mining
 - Dr. Riccardo Bellazzi (2000-2003), Dr. Blaz Zupan (2000-2003)
- WG 5—Primary Health Care Informatics
 - Dr. Michael Kidd (1999-2003), Dr. H.C. Mullins (1999-2003)
- WG 8—Mental Health
 - Michael Rigby (2000-2003), Ann Sheridan (2000-2003)
- WG 10—Hospital Information Systems and Health Profession Workstations
 - Dr. Klaus Kuhn (2000-2003), Dr. Dario Giuse (2000-2003)
- WG 11—Dental Informatics
 - Dr. Yoo Wook-Sung (2000-2003), Dr. John Eisner (2000-2003)
- WG 17—Computerized Patient Records
 - Dr. Mark Musen (2000-2003)
- Special Interest Group 1: Nursing
 - Dr. Virginia K. Saba, (2000-2003)

Dr. Jana Zvárová submitted a proposal to establish a new IMIA Working Group titled Biomedical Statistics and Information Processing. The proposal follows and the recommendation/motion is in part 3 of this report.

New IMIA Working Group Proposal:

- 1. Name: Biomedical Statistics and Information Processing**
- 2. Area of focus for the Working Group**

Statistical methodology plays a great role in many tasks of information processing. It contributes to both biomedical research and healthcare applications. There is no possibility of critically analyzing papers in biomedical journals without understanding principles of statistics.

Papers published in reviewed journals should guarantee both a scientific quality and practical significance of published results. However, we can often find wrong statistical analyses of collected data that lead to misleading conclusions. It is clear that often we need to generalize findings received only from samples drawn from populations under consideration. In this case statistical inductive reasoning makes it possible to calculate the degree of confidence of generalized conclusions objectively. Therefore, statistical methodology concerns itself with different aspects of data collecting (sampling methods) and data processing (computational statistics) using statistical tools for estimation of unknown population parameters and hypotheses testing. Statistical methods are often used in a broad field of biomedical applications, e.g. clinics, epidemiology, genetics, pharmacology, and other areas of healthcare. The Working Group will focus on a broad scope of statistical methods in medicine and health care including their contribution to the topics of clinical trials, meta-analysis, data mining, and decision support.

- 3. Contact information**

Chair: Jana Zvárová, European Center for Medical Informatics, Statistics, and Epidemiology,
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Co-Chair: Leon Bobrowski,
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4. Scientific Map location

Applied technology	Information Technology Infrastructure	Applications and Products	Data-Infrastructure Related
Mathematical models in medicine	Archival-repository systems for medical records EPR, CPR, EMR	Quality management	Data acquisition–data capture
Algorithms		Clinical trials	Data analysis–extraction tools
		Outcomes research and measurement	Coding systems
		Decision support	
		Epidemiology research	
		Laboratory data	
		Biostatistics	

Expected interactions with other IMIA WGs

The expected interactions are with the following IMIA Working Groups:

- WG1: Health and Medical Informatics Education
- WG3: Intelligent Data Analysis and Data Mining
- WG4: Primary Health Care Informatics
- WG7: Biomedical Pattern Recognition

5. Potential overlaps with other working groups

The main focus of the working group is on the statistical methods and tools used in biomedicine and health care. The other groups do not explicitly cover these methods and tools. However, they can be considered by the other groups in case that they will use statistical approaches to data analysis. It is expected that these groups will be mainly WG4, WG7 and Proposed WG3 on Intelligent Data Analysis and Data Mining.

6. Content focus of the Working Group

The working group activity will focus on the development and correct application of statistical methods and tools in biomedicine and health care. It will promote computational statistics, exploratory data analysis including visualization methods, and confirmatory data analysis on the broad scale of biomedical and healthcare applications. Great emphasis will be given to clinical and epidemiology statistics, stochastic genetics, and statistics in pharmacology. Bayesian, as well other approaches, will be considered. Attention will be paid to the use of statistical approaches for data mining and decision support systems.

7. Proposed work plan

The WG members have been active in the past in different conferences and workshops connected with statistics in biomedicine and healthcare. Every two years, workshops on Statistics in clinics have been organized at the Institute of Biocybernetics and Biomedical Engineering and the Polish Academy of Sciences. The most recent workshop was held in June 2000. These workshops combine education and research in the field of clinical statistics. The working group seeks to organize sessions at these conferences, as well as in the future MIE, IMIA conferences. It intends to establish closer co-operation in this field with IMIA member countries as well as with international societies and other bodies in the field of biomedical and health statistics, e.g. Biometric Society, International Society for Clinical Biostatistics, and International Society for System Science in Health Care.

8. Working Group members

- Jana Zvárová, chair, European Center for Medical Informatics, Statistics and Epidemiology, CZ
- Leon Bobrowski, vice-chair, Institute of Biocybernetics and Biomedical Engineering, PL
- Norbert Victor, University of Heidelberg, D
- Tibor Postelnicu, Center for Mathematical Statistics, RO
- Jane Stare, Ljubljana, Slovenia
- Marijan Erceg, Public Health Institute of Split and Dalmatia County, CR
- Anna Bartowiak, University of Wrocław, PL
- Rolf Holle, Medis Institute, Munich, D
- Ioana Moisil, University of Sibiu, RO
- Jaromír Antoch, Charles University, Department of Probability and Mathematics Statistics, CZ
- Pirjo Halonen, University of Kuopio, Fi
- Marek Malý, State Health Institute, CZ

9. WG recruitment

Additional members will be enrolled in the conferences related to WG activities by developing contacts with national and international societies and other bodies active in the field and by personal contacts of the WG members.

Part 2: Working Groups Reports

Working Group 1: Health and Medical Informatics Education

Chair: Dr. Evelyn Hovenga and co-chair Prof. Dr. John Mantas, (2000-2003)

- WG1 held its last meeting in conjunction with MIE2000 in Hannover, on August 28th with 18 people in attendance. This was the last meeting under the Chairmanship of Prof. Dr. Reinhold Haux who introduced the new Chair, Prof. Dr. Evelyn J.S. Hovenga, and the new vice chair, Prof. John Mantas.
- Working group 1 has a new web page now located at the main IMIA website.
- The IMIA recommendations in health and medical informatics education have been published in Methods of Information in Medicine Vol. 39 PP 267-277. These recommendations are now also available in Spanish, Italian, and two different Chinese dialects. A Turkish translation is on the web sites of TURKMIA; <http://www.turkmia.org/IMIA.pdf> (as PDF document) <http://www.sbs2000.org/pages/index.php?id=40&1848138229> (as html document), and other translations are in progress.
- An accreditation procedure for programs and courses in health and medical informatics seeking IMIA certification (see section 8.1 of the recommendations) is yet to be developed. In the first instance, all education providers are being encouraged to become academic institutional members of IMIA. This topic is up for further discussion at the next WG1 meeting.
- WG1 will host an annual meeting in conjunction with Medinfo in London.
- Working group 1 is planning another working conference on international perspectives in HMI education to be held during 2002. Prof. Reed Gardner has consulted with Joe Hales, AMIA's Education Committee Chair, and reviewed possible sites. Dr. Hovenga has identified two possible keynote speakers: Prof. Phillip Candy, an expert in self directed and adult learning, and Prof. Bijan Gillani whose expertise is in Educational Technology Leadership. We expected to have a call for papers brochure available at Medinfo in London, however the planning progress has been slow such that this is unlikely to be realized.
- A workshop proposal on On-Line Learning, Partnerships and the Virtual University: A Paradigm Shift in Health and Medical Informatics Education was accepted for presentation at Medinfo2001. This received enthusiastic support from a number of WG1 members who will contribute.
- We continue to receive inquiries for guidance regarding curriculum development for educational courses in Medical Informatics.

Working Group 2: Consumer Health Informatics

Chair: Dr. Alejandro Jadad, Co-Chair: Dr. Betty L. Chang, Co-Chair: Dr. Gunther Eysenbach

- The Consumer Health Informatics Working Group (CHIWG) became an official IMIA Working Group in 2000. The CHIWG is concerned with electronic information related to health care available to the public (e.g. Internet, wireless, standalone electronic media). For its purposes, it defines Consumer Health Informatics as "the use of modern computers and telecommunications to support consumers in obtaining information, analyzing unique health care needs and helping them make decisions about their own health" (U.S. General Accounting Office, 1996, p.1.), in which the consumer interacts with the applications directly with or without the presence of health care professionals. The group's interests focus on, but are not limited to, world wide web sites that offer advice about

healthy living, research findings, and recommendations on specific disease conditions, descriptions of products, medications, and self-care health programs available to the public. Issues of concern may be the evaluation of the quality of information, education of the public, ethical issues related to the electronic information, and the effect on a person's health care and relationship with health care providers.

- The working group has a new web site: <http://www.jmir.org/imia-chi>
- The working group will sponsor a panel, 'Leveling the playing field: international initiatives to promote consumer health informatics' at the Medinfo conference. The Organizer of the workshop is Alex Jadad and the Moderator is Betty Chang. The Speakers are Alex Jadad, Gunther Eysenbach, and Vikki Entwistle, a Senior Research Fellow at the Health Services Research Unit, University of Aberdeen, Scotland. In this workshop, participants will have the opportunity to listen to and exchange ideas with a group of speakers that will discuss the opportunities and challenges of efforts to promote the development of consumer health informatics around the world. There will be a presentation of international projects designed to help consumers use information technology and the best available knowledge to guide their health-related decisions. The discussion will focus on the following aspects of consumer health informatics at an international level: how much we know; practical lessons from completed and ongoing efforts; ethical, social, methodological and political challenges for international projects; international efforts and opportunities for collaboration with other countries; and the need for a clear agenda to promote meaningful and effective efforts on consumer health informatics worldwide.
- Since the initial proposal, the CHIWG has been seeking opportunities to collaborate with other working groups or associations in related areas. Some example areas include the examination of computerized patient care records in hospitals, clinics, or physicians' offices, the ethical aspects of public participation in the development and evaluation of health informatics tools, and the impact of the Internet in consumer education and participation in health care decisions.
- The group will hold a Business meeting at Medinfo 2001.
- The Working Group is co-sponsoring a consumer informatics summit meeting post the AMIA Fall 2001 meeting—Nov 7th and 8th, 2001 at the Wardman Marriott Hotel, Washington DC.

Working Group 3: Intelligent Data Analysis and Data Mining

Chair: Dr. Riccardo Bellazzi, Co-Chair: Dr. Blaz Zupan

- The activity of WG3 is reported at the WG WEB site at: <http://magix.fri.uni-lj.si/idadm>
- WG3 is organizing the Intelligent Data Analysis and Pharmacology 2001 (IDAMAP 01) workshop. The workshop will be held in occasion of MEDINFO 2001 in London on September 4th, 2001. The selection process, which involved 16 reviewers, has now ended. Of the 22 submitted papers, 7 have been accepted as long presentations, 12 as short ones and 3 were rejected. The final workshop program will be available at the Web site <http://magix.fri.uni-lj.si/idamap2001>. The program this year will also comprise an invited talk by Prof. Steve Muggleton from the University of York on application of Machine Learning in Bioinformatics.
- The WG chairs submitted a workshop proposal to the AMIA 2001 symposium on the activities of the WG. The workshop has been accepted.

- The WG members have been very active in organizing activities, such as the workshop on Bayesian methods in medicine and the workshop on Computers in Anesthesia and Intensive care within the AIME '01 conference (see <http://centria.di.fct.unl.pt/conferences/aime01>). The WG chairs are trying to improve coordination between such workshops for the future under the IMIA WG umbrella.
- The WG members will meet just after the IDAMAP '01 workshop to better define the WG strategies for the next year.

Working Group 4: Data Protection in Health Information Systems

Chair: Prof. Ab R. Bakker

- A draft of an Ethical Code of Practice will be available at Medinfo2001. Eike Kluge has collected comments from the members of the working team and incorporated those comments into the draft of the Ethical Code of Practice.
- A workshop will have the draft Code of Practice as the main subject for presentation/discussion.
- Regarding the Security Policy Framework, there is less progress. A panel session during Medinfo2001 will discuss how a draft can be produced.
- During Medinfo2001 there will be a business meeting to discuss ongoing and future activities of the working group.

Working Group: 5 Primary Health Care Informatics

Chair: Dr. Michael Kidd, Co-chair: Dr. H.W. Mullins

- Primary Health Care Informatics Working Group 5 will meet at Medinfo 2001 (12:30-2:00 on Wednesday, September 5th).
- A combined meeting with members of the EFMI Working Group 7 (Primary Care), members of the Informatics Working Party of WONCA (The World Organization of Family Doctors), and IMIA Working Group 5 will occur at the Medinfo conference. We hope that future support and collaborations will emerge from this meeting.
- We also hope to consolidate our work plan for the next three years at this meeting.
- There is strong representation of Primary Health Care issues among the papers, workshops, seminars, and panels being presented at Medinfo 2001. Jean Roberts has produced an excellent overview of the Primary Health Care topics that have been widely circulated in an attempt to boost attendance by primary care clinicians and informaticians.
- Many individuals indicated that they will also be attending the annual conference meeting of the British Computer Society Primary Health Care Specialist Group at Downing College, Cambridge, on September 7th & 8th, 2001, immediately following Medinfo 2001. This is usually an excellent opportunity for networking as well as to discover what is happening in primary health care informatics in the UK.

Working Group 6: Medical Concept Representation

Chair: Dr. Christopher Chute

- The Medical Concept Representation Working Group sponsored a very successful working conference from December 16th-19th, 1999 in Phoenix, Arizona. The following people composed the program committee: Christopher G. Chute, MD, DrPH, Chair, Mayo Clinic/Foundation, USA; James J. Cimino, MD, Columbia University, USA; Pierre Zweigenbaum, Ph.D., Assistance Publique -

Hôpitaux de Paris, France; Vimla L. Patel, Ph.D., McGill University, Canada; Alan Rector, MD, Ph.D., University of Manchester, UK; Dr. Angelo Rossi Mori; Consiglio Nazionale delle Ricerche, Italy; Shusaku Tsumoto, MD, Ph.D., Shimane Medical University, Japan. The documents from the 2000 WG6 conference in Phoenix are finalized for sending to Methods. This will comprise the 6th volume of published conference proceedings for this working group.

- More than 20 papers were presented covering topics including, but not limited to: Natural Language Processing for Patient Information, EMR-Re-engineering the Organization of Health Information, Characterization of Terminology Models, and Enterprise Issues Pertaining to Implementing Controlled Terminologies. The papers from this conference were published in late 2000.
- A Medinfo panel proposal has been submitted by WG6, with joint sponsorship from the corresponding EFMI and AMIA working groups.
- A WG administrative session is planned for Medinfo, which will explore plans for the 2003 triennial conference. Discussions from last year suggested Thessalonica as a site, with strong European organization of the event.
- WG6 will host an organizational meeting at Medinfo.
- Several WG6 members will be presenting papers and participating in panels at the Medinfo meeting.

Working Group 7: Biomedical Pattern Recognition

Chair: Dr. Christoph Zywiets

- After discussions with experts at various places during the year 2000 the following goals and topics will be the focus of WG7: WG7 wants to provide a forum for discussion and collaboration on problems of Biosignal Processing, Biomedical Pattern Recognition and on Quality Assurance in this field. This includes the following topics:
 - Measurement and interpretation of physiological signals
 - Signal-based modeling and simulation in biomedicine
 - Biological control systems, e.g., the human autonomous regulation system
 - Quality assurance and evaluation of physiological analysis systems
- Web-pages for WG7 have been prepared providing:
 - Information on the Working Group itself
 - Information on working conferences and workshops (including their proceedings) organized/prepared specifically by WG7
 - Links to the Proceedings publications in the "Methods of Information" - Special Issues - have been inserted
 - Information on upcoming events, specifically those prepared by WG7 and further information on workshops and conferences that specifically address the problems of Biosignal Processing
- A workshop "Quality Assurance in Biosignal Processing and Evaluation of Physiological Analysis Systems" during Medinfo on Tuesday, September 4th, 4:00 – 5:30 has been prepared. The abstract for the content of this workshop is attached.
- There will also be an IMIA WG7 management meeting on Wednesday, September 5th, 1:00 – 2:00.
- The preparations for the IMIA WG7 4th **International Workshop on Biosignal Interpretation** to be held June 24-26, 2002 in Villa Olmo, Como, Italy are well on the way. The first announcement and Call for Papers has been printed and

distributed, e.g., at the Mediterranean Conference on Biomedical Engineering in June 2001 in Pula. The 4th BSI Workshop is being prepared by Prof. Sergio Cerutti, Milan, and his group. The first announcement can be also found on the web. <http://www.BSI2002.polimi.it/FirstA.html> Also, the program committee and the scientific committee have been set up. Members of the program committee are:

- Metin Akay, *Dartmouth, Collage Hanover, USA*
- Sergio Cerutti (Chairman) *Polytechnic University of Milan*
- Bin He, *University of Illinois, Chicago, USA*
- Shunsuke Sato, *Osaka University, Japan*
- Christoph Zywiets, *Medizinische Hochschule Hannover, Germany*

The names and addresses of the program committee and the scientific committee members are also published on the web. <http://wwwBSI2002.polimi.it/Committee.html>

- After communication between the WG7 chairman, the workshop chairman, and Prof. Haux it has been decided to publish again a selection of presentations in a special issue of the *Methods of Information*.
- Co-editors will be S. Cerutti, Chr. Zywiets, and a third colleague from the Scientific Committee.
- Program Abstract of the WG7 Medinfo Workshop "Quality Assurance in Biosignal Processing and Evaluation of Physiological Analysis Systems" follows.

Quality Assurance in Biosignal Processing and Evaluation of Physiological Analysis Systems

Christoph Zywiets¹, Thomas Penzel², Paul Woolman³

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²Sleep Laboratory, Medical Clinic, Philips University, Marburg, Germany

³Dept. Anaesthesia, Royal Infirmary, Glasgow, United Kingdom

To date many medical devices or device systems have built in computing capabilities for data acquisition, signal or image processing, diagnostic classification and result export (e.g. display, printing, storage and transmission).

Performance analysis of such systems requires particular care. Besides general accuracy requirements, psychological and legal implications for patient and physician have to be considered on both the development and the user site.

Cybernetics and control engineering have provided the basic methodology for performance analysis of systems: in pure technical systems often mathematically defined functions and signals can be fed into the system and its response and output provide the necessary performance characteristics after adequate mathematical analysis. However, the mathematical tools as well as the still used performance and test specifications within the official system standards very often imply that the systems to be tested are **linear** systems.

Implementation of digital processing has introduced many **non-linear** properties into the behavior of devices and device systems. Consequently, many new test procedures (including new test signals) have to be developed for performance analysis and quality assurance.

During this Workshop, problems and some solutions will be discussed pertaining to examples from three application areas in medical care:

- Computer assisted ECG analysis

- Multi-parameter sleep monitoring
- Monitoring of vital signs in anesthesia and during surgery

The first topic addresses pure signal processing problems studied extensively during a number of specific research projects supported mainly by the European Commission. The first author will present "Results and Recommendations from the European projects on Common Standards for Quantitative Electrocardiography and Conformance Testing Services for Computer Assisted Electrocardiography."

For no other biosignal have the problems of digital processing been studied so fundamentally. Also, for no other biosignal could the definition of device specifications, standards, and performance testing be justified so profoundly based on systematic research. The methods and results from these studies may - and should - be applied to many other biosignal analysis systems as well.

For the second topic, author (2) will give a presentation on "Quality Management of Polygraphic Signal Recording and Analysis in Sleep Laboratories." Here the emphasis is on monitoring a complex system setting, on equipment performance, the quality, completeness, and structural requirements for a multi-parameter clinical investigation. The author is also involved in a task force for quality certification of other sleep laboratories and will report on this as well.

For the third item, a presentation will be given by author (3) on "Evaluation of Physiological Analysis Systems (EPAS) – Standards: Generic and Specific." The author will draw on the studies and experiences discussed in topics (1) and (2) and from his own work on patient monitoring in anesthesia and surgery to summarize results and draw conclusions. Additionally, he will explain how the results of the various studies are now transferred into public recommendations and into device specifications and testing procedures through the European Standardization Organization CEN.

It is planned that the presentations last approx. 15-20 minutes. In addition to short discussions/questions regarding the presentations, an open plenary discussion for future activities of WG7 for improving Quality Assurance and System testing in Biosignal Processing is encouraged.

Working Group 8: Mental Health

Chair: Michael Rigby, Co-Chair: Ann Sheridan, RN

- This group was established at the IMIA Board meeting in August 2000 with the formal confirmation being received in October 2000. The report prepared for the IMIA board meeting in Madrid in March outlined an initial program of activities. Since then a number of these have been progressed.
- The chair and co-chair attended the IMIA board meeting in Madrid at the end of March.
- The chair and co-chair presented a paper in the 'Patients Rights and New Technology' session at the joint Royal College of Psychiatrists/World Psychiatric Association Meeting in London on July 9th.
- An open forum meeting is planned to take place at Medinfo in September.
- A proposal presented to HISI (Health Informatics Society of Ireland) to hold a joint event has been approved.
- A Proposal for Inaugural Event in collaboration with the Health Informatics Society of Ireland has been outlined

- **Background**

The new Working Group 8 of the International Medical Informatics Association (IMIA) is charged with developing awareness of the issues and potential benefits of applying informatics techniques in mental health. Like other working groups,

the new Working Group has no central funds, and needs to build up its activities with suitable launch events which will establish its credentials and value, identify a working program relevant to practitioners in the (global) field; and create working funds. The Irish member of the IMIA Board has been one of the most supportive in the initial stages, and the Health Informatics Society of Ireland (HISI) has demonstrated practical support. The Nuffield Trust, London, has offered in principle a start-up grant for the first scientific event, subject to submission of a satisfactory business case. This paper proposes the framework for an inaugural event, building on these two practical offers.

- **The Requirement and Parameters**

Establishment of the philosophy and credibility of a new global group is challenging. If, as in this case, there is no predecessor group, it is necessary to establish a core active membership, a relevant profile of work, and functional credibility. To a significant degree these three attributes are mutually inter-dependent, therefore, the initial processes have to build on all three simultaneously, as no track record exists. As a result, the initial activities of the group must:

- Be interesting enough to attract delegates
- Have topic relevance
- Have scientific credibility
- Be flexible enough to enable the new body corporate to finance the forward program of activity
- Be affordable, especially if the intellectual value is not yet clear

Initially it was hoped that Working Group 8 might use the major platform of Medinfo 2001 to hold an inaugural agenda-exploring meeting. However, a range of practical problems has forestalled this. Moreover, the target audience for Working Group 8 is likely to fall largely outside the current informatics community of those who would commit to a four-day informatics event, if the objective of attracting key thinkers in the mental health domain is to be achieved. Instead, this new opportunity is for an event that will combine:

- A guest speaker session so as to open the subject with some credibility
- A joint session with an informatics conference to bring mental health into the informatics arena
- An openly refereed scientific session to involve new material with scientific credibility
- General interaction to help formulate the new agenda and key membership

- **The Proposal**

The Health Informatics Society of Ireland holds an annual scientific one-day meeting in late autumn. Recently, optional additional workshops have been held on the preceding afternoon. Following informal discussions with the HISI Board, it is suggested that this provide the platform for a parallel but linked inaugural IMIA WG8 event. There would be distinct contents for each, but with cross-enrichment. There would be a dedicated IMIA event on the first afternoon; IMIA delegates would attend the morning of the HISI event, with a mental health parallel session in the afternoon of the HISI event run by the IMIA group and open to both sets of delegates. The benefit to the IMIA WG would be the cost-benefits of the sharing of facilities, while HISI would gain additional input and interest for its 2001 conference.

- **The Format**

The following interlinking format is proposed for the IMIA WG8 event:

Wednesday afternoon: WG specific meeting with invited speakers (parallel to HISI workshops)

Thursday morning: WG members attend plenary part of HISI event, WG provides keynote speaker

Thursday afternoon: One parallel session of HISI conference is run by the WG; refereed papers

- **Financial Proposal**

The HISI Board has proposed that WG meeting attendees should attend the HISI event at half the normal delegate fee, this sum being included within the Working Group Conference fee. The Working Group would cover the costs of its own half-day meeting including speakers' expenses, and would meet the travel and subsistence costs of the keynote speaker.

- **Date and Location**

The event would be held on Wednesday and Thursday, November 14th & 15th, which may also allow international delegates to travel cheaply on APEX air fares. The venue will be the Stillorgan Park Hotel and Conference Centre, in South Dublin. This is readily accessible to the city center by public transport.

- **Topics**

In order to explore the Working Group future program, it is proposed that the topic for the inaugural afternoon be "Critical Success Factors in Mental Health Electronic Patient Record Systems." In terms of applied health informatics in mental health and in terms of identifying the key unaddressed issues, this is seen as a useful carrier topic. At the same time, it is in itself a critical policy and practical issue. Speakers would be selected to cover reporting of problems and perceived failures, as well as successes, to open up a rich debate. The parallel scientific session would be open to papers on any mental health informatics topic.

Working Group 9: Health Informatics for Development

Chair: Nora Oliveri, MD

- WG9 was inaugurated in 1983 by the IMIA GA in The Netherlands. Main objectives are as follows:
 - To find out how health care Informatics could improve live conditions in developing regions and implement programs in that direction
 - Organization of forums that would make possible the exchange of experiences of colleagues working in the field of health informatics
 - Making a list of the needs and resources in M.I. for each country
 - Organization of educational activities in developing regions, especially through the implementation of professors' exchange
 - Organizing workshops and seminars with international experts participation for human resource formation in each country
- Information about activities, publications, how to join the WG9 and links to web sites related are available at www.imia.org/wg9/ - www.fim.org.ar/wg9/ & www.mifound.org/WG9.
- **Mailing List:** To facilitate communication between members and all professionals interested in IMIA-WG9 goals. Languages: English and Spanish. To subscribe, send a message to: IMIA-WG9@pccorreo.com.ar. Subject: Subscribe. Body: name, last name, and e-mail contact data.

➤ **Meetings and Activities**

- IMIA-WG9 Workshop during Medinfo 2001: Issues for Health Informatics for Developing Countries: Globalization and Development
 - During 2001, IMIA-WG9 has collaborated with Informedica 2000: 1st Iberoamerican Virtual Congress of Medical Informatics. Oct 30th, 2000 – April 30th, 2001. [www.informedica.org] / [www.informedica.org.ar]
 - IMIA-WG9 is keeping a valuable exchange of ideas and experiences with IMIA-WG1: Health and Medical Informatics Education and EFMI-WG10: Health Informatics for development.
- **Planning Activities:** To develop a close collaboration and action program with IMIA-LAC, African Region and APAMI.

Working Group 10: Hospital Information Systems/Health Professional Workstations

Chair: Dr. Klaus Kuhn, Co-chair: Dr. Dario Giuse

- IMIA WG 10 has been recruiting members
- The Working Group chair and co-chair contributed a review article to the Yearbook of Medical Informatics 0, "From Hospital Information Systems to Health Information Systems—Problems, Challenges, Perspectives".
- A MEDINFO Workshop of WG 10 "Challenges in Deploying Health Information Systems" has been scheduled for Wednesday, September 5th, 11:00-12:30. The following colleagues have agreed to actively contribute: A.R. Bakker, M.J. Ball, G. Gell, and D.A. Giuse.
- There will also be a management meeting of the WG in London during MEDINFO.
- A Working Conference has been scheduled for April 8-10, 2002, in Heidelberg, Germany. Several colleagues have already agreed to serve on the program committee. The objectives of the conference will be the ones discussed during the General Assembly in Hannover in 2000 (see http://www.med.uni-marburg.de/imi/IMIA_WG10_Events.html).
- Immediately after the IMIA working conference, the working conference of the corresponding German WG HIS will take place at the same location from April 11th to 12th. This conference is directed towards practical experiences, and it has been very successful for several years. The German Association of Medical Informatics, Biometry, and Epidemiology has warmly welcomed the IMIA meeting, and it has agreed to sponsor the IMIA working conference.

Working Group 11: Dental Informatics

Chair: Dr. Wook Sung Yoo, Co-Chair: Dr. John Eisner

- This working group continues to update the IMIA Dental Informatics Working Group home page.
- The number of IMIA WG11 members has been increased from 95 (2000) to 104 (July 2001).
- We are currently working on creating a "Dental Informatics Literature Survey" web site linked from the WG11 homepage (<http://www.ecs.gannon.edu/IMIA>). The site consists of literature database with a user-friendly front-end interface that includes a search page and a member's paper entry page. We are planning to open this site in August 2001.

- This group is planning to add web pages identifying current activities in all countries with IMIA working group members and posting summaries/links to news items/web-sites related to dental informatics activities.

Working Group 13: Organizational and Social Issues

Chair: Dr. Bonnie Kaplan

- **OBJECTIVES:** To investigate organizational, social, and individual behavioral issues surrounding the introduction and use of informatics applications. To determine strategies for product design and technological change to support health care delivery through information and communication technologies. To incorporate organizational change management and human concerns into information technology projects.
- Papers from the Helsinki conference hosted jointly by WG13 and WG15 in 1998 were published in the December 1999 *International Journal of Medicine Informatics*.
- Joint panels with AMIA People and Organizational Issues (POI) WG and EFMI WG9 at the AMIA Fall 2000 Symposium and at the IFIP 8.2 IS 2000 Conference.
- The chair of WG13 served on the Scientific Program Committee for the AMIA Fall Symposium 2001.
- Working Group 13 in conjunction with the AMIA People and Organizational Issues Working Group and EFMI WG 9 continues to produce and distribute an on-line newsletter and maintain a listserv.
- The WG endorsed a conference planned by EFMI WG9, IT in Health Care: Sociotechnical Approaches in Rotterdam, September 6-7, 2001.
- WG13, together with the AMIA POI WG, organized two panels and a workshop that are part of the Medinfo 2001 program.
 - Monday, Sept 3rd (4:00-5:30 – Workshop) Evaluation in the UK National Health Service Speakers: Atkinson, C, Jones, M, Klecun-Dabrowska, E, Shaw, N, Teasdale, S, Wyatt, J Moderator: Kaplan, B
 - Tuesday, Sept 4th (9:00-10:30 – Panel) New Approaches To Evaluation: Alternatives To The Randomized Controlled Trial - Qualitative Approaches to Design and Evaluation: Theory and Practice Speakers: Aarts, J, Hebert, Kaplan, B., Lewis, D, Vimarlund V Moderator: Shaw, N
 - Tuesday, Sept 4th (4:00-5:30 – Panel) New Approaches To Evaluation: Alternatives To The Randomized Controlled Trial - Quantitative Models for Evaluation Speakers: Anderson, JG, Jaffe, C, Leonard, K, Zitner, D Moderator: Klecun-Dabrowska, E
- The chair of WG13 will teach a tutorial at Medinfo, and, together with the chair of the AMIA Ethical, Legal, & Social Issues WG, will teach a tutorial at the AMIA Fall Symposium 2001. Medinfo: Organizational readiness for clinical information technologies: culture, change management and evaluation. AMIA: Evaluating the Impact of Health Care Information Systems
- Papers on organizational issues will be submitted for the IMIA 2002 yearbook.
- Collaboration between WG13, WG15, and the AMIA POI WG will occur to produce a bibliography on evaluation and assessment.
- The chair of WG13 will serve as a Program Chair for the IFIP 8.2 2004 conference in Manchester, England.
- Business meeting at Medinfo to plan additional future activities.

Working Group 15: Technology Assessment & Quality Development

Chair: Dr. Jan Talmon

- Dr. Talmon continues to develop this working group's agenda.
- There was a workgroup meeting as part of the MIE 2000 Hanover meeting.
- There will be several workgroup activities at the Medinfo 2001.

Working Group 16: Standards in Health Care Informatics

Chair: Dr. Georges J.E. De Moor

- No report submitted

Working Group 17: Computerized Patient Records

Chair: Dr. Johan van der Lei

Co-Chair: Dr. Mark A. Musen

The report of activities over the last year is very brief: besides planning some activities for this year, little has happened. Working Group 17 will have a WG meeting at Medinfo. In addition, Dr. van der Lei is organizing a meeting with Marc Berg, MD, Ph.D. that will be held in The Netherlands immediately after Medinfo 2001.

Working Group 18: Telematics in Healthcare

Chair: Dr. Regis Beuscart

- The main efforts of the Group were focused towards the organization of a Working Group Meeting in Medinfo.
- The objective of the workshop will be oriented towards sharing experiences of successful or failing medical networks or Health Telematics Projects. The focus will be on technical characteristics, but also on human and organizational factors that have to be taken into account to make an experience successful. The main points to be discussed, based on practical experiences will be:
 - Regional Networks
 - Homecare
 - Hospital in its environment
 - New Tools and Concepts for Health Telematics
 - Human Factors
- Another meeting will be organized in Lille (France) on **January 23rd and 24th, 2002**. During these two days we will explore the following theme: **High-tech Telemedicine / Daily Telemedicine**. On the one hand, the colloquium will explore new advances in Technology for Telemedicine and Health Telematics. On the other hand, it will show that Health Telematics is becoming more and more commonplace and a real daily practice.

Special Interest Group N1: Nursing Informatics

Chair: Professor Dr. Virginia K. Saba, Vice-Chair: Heather Strachan,

Web site: <http://www.infocom.cqu.edu.au/imia-ni/>

- The IMIA Special Interest Group 1- Nursing Informatics (IMIA/NI-SIG) addresses several key issues in the field of health care informatics and more specifically nursing informatics. Their objectives are to: (a) foster collaboration among nurses and others interested in nursing informatics; (b) explore the scope of nursing informatics and its implications for information handling activities; (c) support the development of nursing informatics in member countries; (d) provide informatics conferences and meetings; (e) encourage publication and

dissemination of research and development materials, and (f) develop recommendations, guidelines, tools, and courses.

- The IMIA/NI-SIG meets annually -- either at its International Conference held every three years, at Medinfo also held at different three-year intervals, or at another Informatics meeting. The organization currently has approximately 30 official members, including its officers, from 27 IMIA member countries.
- This NI-SIG has seven working groups who are addressing several informatics activities: The working group Chairs are as follows:
 - Concept Representation Models: Virginia Saba, USA
 - Reference Terminology Model: Suzanne Bakken, USA
 - International Nursing Minimum Data Set: Connie Delaney, USA
 - Research: Heather Strachan, UK
 - Management: Robyn Carr, NZ
 - Education: Peter Murray, UK & Diane Skiba, USA
 - Standards: Kathleen McCormick, USA
 - History: Marianne Tallberg, FIN
 - Evidenced-Based Practice: Nancy Bergstrom, USA

Activities in 2001:

- In 2001 the IMIA/NI-SIG will be hosting their Annual Meeting at Medinfo in London, UK on September 2nd, 2001.
- Virginia K. Saba, IMIA/NI Chair, was appointed to the ISO/TC 215 WG3 - US TAG to track the New Work Item Proposal (NWIP). She attended several US TAG meetings in the USA as well as the ISO/TC 215 meetings held internationally. Hyeoun-Ae Park, an IMIA/NI-SIG member, attended the ISO meeting held in Seoul, Korea in March 2001 for Virginia K. Saba. Virginia K. Saba plans to attend the next ISO meeting being held in London in August 2001.
- IMIA/NI have been actively involved in the development of the "Integration of a Reference Terminology Model for Nursing" through the International Standards Organization (ISO) as an International Standard for Nursing Informatics (NI). It included the following:
 - A New Work Item Proposal (NWIP) # 142 entitled "Integration of a Reference Terminology Model for Nursing" to ISO/TC 215 by the Working Group 3 - Concept Representation -- US TAG Regional Technical Advisory Group and submitted in November 2000 and approved as of 24 January 2001. This NWIP is co-sponsored by IMIA/NI-SIG and the International Council of Nursing (ICN).
 - The NWIP is being overseen by a Steering Committee, chaired by Virginia Saba and three other members -- Kathleen McCormick, Amy Coenen and Evelyn Hovenga -- who are responsible for the coordination and final preparation of the submission of the Drafts. The Steering Committee established two additional committees to facilitate the work; namely, a Work Item Task Group and an Expert Committee.
 - The Work Item Task Group, chaired by Suzanne Bakken, consists of a small, select group of specialists who are assisting her in the preparation of the Working and Committee Drafts.
 - The Expert Committee consists of several experts (at least one per country) as well as several ISO members who volunteered to review the Working Drafts.

- Two meetings were held re NWIP. The first meeting was held in Coimbra, Portugal on November 15th, 2000 to review and evaluate the Work Item Proposal. The second was held on June 14th, 2001 in Copenhagen in conjunction with International Congress of Nursing (ICN) meeting to discuss the first Working Draft.
- The Working Draft is due July 24th, 2001 and will be distributed to all members of all committee members for review. It will then be finalized for submission to ISO by in January 24th, 2002.
- Robyn Carr executed a plan to ensure that the IMIA/NI encompasses representatives from all countries who belong to IMIA. Letters were sent to IMIA country representatives which did not have a nursing representative in IMIA/NI requesting that they nominate a representative to IMIA/NI-SIG and to attend Medinfo 2001.

Activities in 2000:

- In 2000, the IMIA/NI-SIG hosted several meetings and were involved in several events related to the goals of the organization. They are as follows:
- The IMIA/NI-SIG held its 7th International Conference in New Zealand. It was hosted by the Nursing Informatics of New Zealand (NINZ) Association on 28 April - 3 May 2000, in Auckland, NZ. The proceedings entitled Nursing Informatics 2000: One Step Beyond: The Evolution of Technology and Nursing: Proceedings of the 7th International Conference were offered either as a CD or as a paper publication. It was edited by Virginia Saba; Robyn Carr, Walter Sermeus, and Paulo Rocha
- A Post Congress was held in the Waikato River, NZ. It was attended by 35 invited NI'2000 conference participants. The group spent three days addressing the topic "Clinical Pathways & Outcomes Using Evidenced-based Practice." Their deliberations will be published in the NI'2000 Post Congress Proceedings (in press, 2001).
- During the 7th NI 2000 Congress, the General Assembly of the IMIA/NI SIG 1 Council also held its annual meeting. As of May 2000, the Executive Committee changed to the current Committee which consists of: Chair, Virginia K. Saba, USA; Vice-Chair, Heather Strachan, United Kingdom; and Secretary, Robyn Carr, New Zealand.
- Peter Murray of the United Kingdom was appointed Web Master for the NI Home Page which is: <http://www.infocom.cqu.edu.au/imia-ni/>
- The History Working Group introduced its new book entitled: International Nursing Informatics - A History of the First Forty Years 1960-2000 authored by M. Scholes, M. Tallberg, and E.S.P. Plyter-Wenting. Books are available from the New Zealand Nursing Informatics (NINZ) Association or from the three authors.
- Heimar Marin, Chair of the 8th International Congress Nursing Informatics to be held in Rio de Janeiro, Brazil in June, 2003 selected her Planning and Scientific Committees.
- Evelyn Hovenga, previous Chair of IMIA/NI SIG, was elected Chair of the IMIA Working Group I Health and Medical Informatics Education at the IMIA General Assembly in Hanover, Germany August 26, 2000.
- The IMIA/NI SIG members conducted a workshop at AMIA held in Los Angeles, CA, USA, in November 2000 and another at ICN in Copenhagen in June 2001. Many members also attended other IMIA related meetings.

Part 3: IMIA Working Group Recommendation Motions

IMIA Working Group Chair Motions

1. **Moved** that the IMIA Board accept Prof. Ab R. Bakker as chair of WG 4—Data Protection in Health Information Systems—from 2001 until the end of the General Assembly meeting in 2004.
2. **Moved** that the IMIA Board accept Dr. Christopher Chute as chair of WG 6—Medical Concept Representation—from 2001 until the end of the General Assembly meeting in 2004.
3. **Moved** that the IMIA Board accept Dr. Christoph Zywietz as chair of WG 7—Biomedical Pattern Recognition—from 2001 until the end of the General Assembly meeting in 2004.
4. **Moved** that the IMIA Board accept Dr. Nora Oliveri as chair of WG 9—Health Informatics for Development—from 2001 until the end of the General Assembly meeting in 2004.
5. **Moved** that the IMIA Board accept Dr. Johan van der Lei as chair of WG 17—Computerized Patient Records—from 2001 until the end of the General Assembly meeting in 2004.

The IMIA VP has not heard from the chair of Working Group 16—Standards in Health Care Informatics, the chair asks the IMIA Board for their recommendations for a new chair of this working group.

New Working Group Motion

1. **Moved** that the Biomedical Statistics and Information Processing Working Group with Dr. Jana Zvárová as chair and Dr. Leon Bobrowski as co-chair from 2001 until the end of the General Assembly meeting in 2004 be approved by the IMIA Board in March and referred to the IMIA General Assembly meeting in September 2001.
2. **Moved** that based on the reassignment non-active IMIA Working Group numbers that the Biomedical Statistics and Information Processing Working Group become IMIA Working Group 12.

Motions from the Working Group Reports

Moved that the Board approve Working Group 7's Biomedical Pattern Recognition Workshop in 2002 (suggested date is June 24-26, 2002). The conference will be held in Villa Olmo, Como, Italy.