activities in the EPC programme - evaluation treatment of atrial fibrillation in the elderly, treatment of acne, anesthesia management during cataract surgery, treatment of co-existing cataract glaucoma, the more recent activity -- bioterrorism: training for rare public health events, blood pressure monitoring, depression treatment with new drugs, management of chronic hypertension in pregnancy, use of garlic for cardiovascular disease and other alternative medicine and also recently a Medical Harms Workshop was conducted.

Here are some evidence reports that has been published. The titles are shown there. These are freely available to anyone who request it. Some of these can be downloaded from the internet. Typically, an AHRQ evidence reports forms a systematic review of the topics - the several key questions I addressed - the problems, diagnosis and management are very common themes. It typically consists of evidence tables. Evidence tables are detailed summary of each study, of the study characteristics, exclusion/inclusion criteria, the outcomes and so forth. It also includes meta-analysis and costs of these different analysis when they are appropriate. The average cost of this kind of report is about $250,000 and this includes what is known as direct cost, that is that money given to the investigator, and indirect cost, the money given to the institution for the rent, electricity and so forth. In my institution, the indirect cost is 58% so actually the money that I work with is only approximately $150,000. It takes an average 12 to 18 months to complete such a report and we may screen more than 10,000 abstracts and examine about 500 full articles, synthesize a hundred to 300 articles and the report typically about hundred to 400 pages. The contents of the evidence report include: a structured abstract 250 words, executive summary about 10 pages, and then the 5 chapters - introduction, methods, results, conclusions, future research, followed by bibliography, detailed evidence tables (those evidence tables sometime may be as long as hundred pages) and supplemental analysis will follow.

About the National Guidelines Clearinghouse. This is an internet-based research website. It is a collaborative project of AHRQ, American Medical Association and American Association of Health Plans. It provides structured abstracts and full text of over 500 clinical practice guidelines, and it also has a tool that allows you to compare differences in clinical practice guidelines on a single topic and also provide annotated bibliographies. So anyone can go and look at it on the web. For those who are interested, it is [www.ngc.gov]

The role of the academic institutions in EBM is in various forms - they teach pre-clinical course in EBM to medical students, journal clubs, fellow staff, they make authoritative websites and what I did not list there are the research that is done by academic institutions. Professional societies are also involved in EBM in various ways. Listed here are some of the professional societies that have put out clinical practice guidelines or had conducted EBM-type of workshops at the end of meetings.

I would like to describe a little more about the National Kidney Foundation because I have been doing some work for them and they are also one of the group of societies and foundations to use EBM methods. In the mid-1990s they have produced several clinical practice guidelines that uses evidence-based methodology on the dialysis topics. This is known as "DOQI" - Dialysis Outcomes Quality Initiative. Some of the topics they have reported on are vascular access, anemia in chronic renal disease, nutrition in chronic renal disease, and hemodialysis adequacy. More recently, they have evolved in K-DOQI. It stands for Kidney Disease Outcomes Quality Initiatives. For the first time the classification of chronic kidney disease hopefully will be better defined and the methodologies in the K-DOQI series. I was surprised to learn that chronic kidney disease is very vaguely defined like many things in medicine.

The other groups that I want to talk about are health care insurers and the one I earlier mentioned, the Blue Cross/Blue Shield Association, they are also one of the EPC. There are some technology assessment and consultation companies such as the ECRI, the RAND Corporation in Los Angeles and then there are a few profit company that mostly do contracts with pharmaceutical companies such as the MetaWorks.

The United States Medical Journals have also participated in EBM activities. Some of them I am sure you know - the Annals of Internal Medicine published the ACP Journal Club which synthesizes information, the Journal of Family Practice put out a newsletter or a short form of the publication called Patient-Oriented Evidence that Matters.

There are some other journal like the Journal of Medical Associations that publish many meta-analysis and also EBM methodologies and also participate in conducting and reporting clinical studies. And this is the report version of the ACP's Journal Club that evaluates therapeutics, diagnosis, and etiology. This is a one-page summary of the article reviewed.

Pharmaceutical companies also participate in the EBM activity. They contract out systematic reviews and meta-analysis to some groups. Sometimes they do that in-house. The purpose is to identify opportunities for

secondary indications, that is, once a drug has been approved sometimes there will be other uses. By this systematic review of other studies, the information may be useful to help plan future studies of a newly developed drug. These may also be used to understand their competitor's position for marketing purposes. Also they conduct very often now pharmaco-economic analysis, cost-effective analysis to help them position and market their products.

The Cochrane Collaboration -- you all know very well, In 1996 when the 4 U.S. Cochrane Centers were formed. These were the San Francisco Cochrane Center, San Antonio Cochrane Center, the Baltimore and the New England Cochrane Center, highlighted as the geographic region of our responsibility. But two years ago, the Baltimore Cochrane Center was closed and merged with my center. So now the New England Cochrane Center has two offices. The San Antonio Cochrane Center recently closed down its operations as I mentioned to you earlier. The two remaining U.S. Cochrane Centers has also had discussions to try to form one U.S. center due to some difficulties with the funding.

Some of our U.S. Cochrane activity in the past includes running the Baltimore Cochrane Colloquium in 1998. Our center has been conducting systematic review training workshops twice a year for three years now. There are several review groups that do systematic reviews - the sexually transmitted disease, HIV, prostate, perinatal medicine, and pain component of the pain and pallative and supportive care group whose main editorial base is in the Oxford U.K. but the pain part is in my hospital. There are several Cochrane fields represented in the U.S. such as the child health and family care, and there is the diagnostic tests methods group.

One of the challenges faced by the U.S. Cochrane Centers is the lack of funding to support the infrastructure. It has been difficult to demonstrate the values of systematic reviews. It has been difficult to measure the impact of systematic review. It is difficult to get government funding for the so-called international effort. There is also the problem when we try to get managed care company, the health insurers, to pay for some of the reviews; they will ask - why should I fund something that others will also use?

Unlike China, perhaps in Japan as well, we'd like to centralize support for our effort. There is also uncertain value for systematic review published only in medical libraries at least for the academics who need to publish or otherwise will perish. For the past 10 years in the United States, there has been much preoccupation with managed care issue in health care.

So in summary that is the situation of EBM in the United States. There are diverse approaches. There is no single major focus. There are many loose connections of different groups. There are also many stakeholders, many interest groups. Although individual U.S. researchers are involved in many methodologic innovations, overall they have been left behind by researchers in some other developed countries in the overall awareness and implementation. Although there is some increasing awareness and is rapidly catching up.

At the Third International Conference on the Scientific Basis for Health Services, several presentors acknowledged that improvement of the evidence-based clinical practice has proven more difficult than expected. There was a clear call to press on with new strategies that are more cognizant of the localize and organizational contexts of care, such as major systems and behavior, strategies that optimize evidence based health care. David Naylor from the University of Toronto in Canada said that there is an enormous number of gray zones, that is, this lack of RCTs, of good evidence in EBM. There is a growing need to learn how to respond to that uncertainty such as using non-randomized studies. Evidence movement must moved beyond classical EBM to incorporate multi-cultural, organizational patient centered and reality-based values in the context of care. He is placing his bets on an improved info structure including unified electronic medical records, patient centered decision and structured information in practice guidelines. What he is saying is that unless all the pieces are there when the doctor needs it for practice, EBM may not happen so quickly. John Eisenberg, the director of AHRQ said that evidence-based healthcare will play out differently across the globe depending on the socio-political reality and cultural values. There is a need for globalization of evidence and localization of application.

Evidence-Based Medicine in the United States

Joseph Lau, MD
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1

Major Tools of EBM

- Systematic review
- Meta-analysis
- Decision analysis
- Cost-effectiveness analysis

2

Some applications of EBM

- Technology assessments
- Clinical Practice Guidelines

3

Source of evidence

- Medical literature
- Personal experience
- Colleagues
- Experts
- Patient's own experience
- Industry (pharmaceutical representatives)
- Internet

4

More using Web for health data

Boston Globe August 11, 2000. A15

- Harris Interactive Poll surveyed 1,001 adults between May 26 - June 10
- 56 percent of US adults (~114 million) were accessing Internet from homes, offices, colleges, and other places
- estimated that 98 million Americans now use Internet to find health care information
- 13% look up health information for themselves or family members "often"
- 40% looked "sometimes"
- 33% looked "very occasionally"

5

Synthesizing evidence

- Narrative reviews
- Systematic reviews
- Meta-analysis
- Decision analysis
- Cost-effectiveness analysis
- Clinical practice guidelines
- Algorithms

6

Hazards of Clinical Practice Guidelines for an US Government Agency

- In the early 1990s, AHRQ funded the development of about a dozen guidelines
- In the mid-1990s, AHRQ almost eliminated by the Congress because of a group of back surgeons who were unhappy with the *Management of Low Back Pain* guidelines produced by AHRQ

7

Groups involved in EBM activities in the U.S.

- Government agencies
- Academic institutions
- Professional societies
- Medical journals
- Managed care companies/health care insurers
- Pharmaceutical companies
- Interest groups (consumer organizations)
- Individuals

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Types of EBM Products

- Systematic reviews/meta-analysis
- Decision analysis/cost-effectiveness analysis
- Evidence reports
- Clinical practice guidelines
- Technology assessments
- Databases (trial registries, Cochrane Library)
- Websites
- Training: courses/workshops (schools, society meetings) critical appraisal of literature
- Methodological research

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Types of EBM activities
(students and clinicians)

- Attend courses/workshops (schools, society meetings)/participate in journal clubs
- Visit websites for information
- Learn critical appraisal of literature and interpretation of results
- Use information from evidence syntheses for clinical decision making

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Types of EBM activities
(policy decision makers)

- Use evidence reports/systematic reviews/meta-analyses/technology assessments/decision analysis/cost-effectiveness analysis to formulate policies
- Use information to decide future research
- Produce clinical practice guidelines

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Types of EBM activities
(researchers and teachers)

- Conducts evidence reports/systematic reviews/meta-analyses
- Produce clinical practice guidelines
- Conducts technology assessments
- Perform decision analysis/cost-effectiveness analysis
- Create websites
- Conduct courses/workshops (schools, society meetings)
- Perform methodological research

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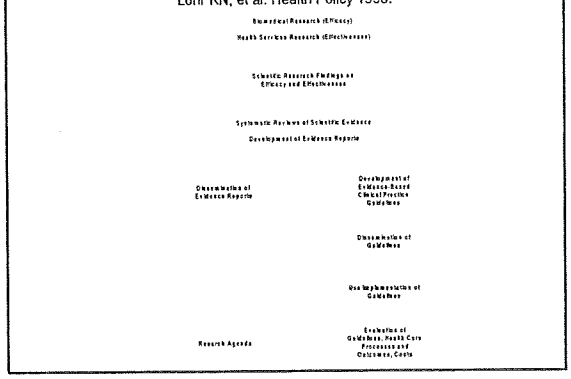
Flow of activitiy in evidence-based guidelines

Lohr KN, et al. Health Policy 1998.



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US Government Agencies

(examples)

- Agency for Healthcare Research and Quality (AHRQ)
  - Evidence-based Practice Centers (EPC)
  - National Guidelines Clearinghouse
- Health Care Financing Administration (HCFA)
- Social Security Administration (SSA) – disability in children, kidney failure
- National Institute of Health (NIH)
  - OMAR – Consensus Development Conference
  - NICHD – Cochrane perinatal medicine group
- Veteran Affairs - Cochrane prostate review group
- Center for Disease Control (CDC) – Human Genome Epidemiology (HuGE net)

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AHRQ EPC Program

- 12 EPCs were designated in 1997: academic institutions (8), non-profit technology assessment companies (3), for-profit consulting company (1)
- 5-year contract (1997 – 2002)
- To-date: more than 60 evidence reports completed or in progress
- 2 EPCs provide methodological support to the third edition of the US Preventive Health Services Task Force

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EPC's task

The EPCs will review all relevant scientific literature on assigned clinical care topics and produce evidence reports and technology assessments, conduct research on methodologies and the effectiveness of their implementation, and participate in technical assistance activities. Public and private sector organizations may use the reports and assessments as the basis for their own clinical guidelines and other quality improvement activities.

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How it works (1)

The EPCs develop evidence reports and technology assessments on clinical topics that are common, expensive, and/or are significant for the Medicare and Medicaid populations. With this program, AHRQ became a "science partner" with private and public organizations in their efforts to improve the quality, effectiveness, and appropriateness of clinical care by facilitating the translation of evidence-based research findings into clinical practice.

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How it works (2)

The EPCs develop evidence reports and technology assessments based on rigorous, comprehensive syntheses and analyses of relevant scientific literature, emphasizing explicit and detailed documentation of methods, rationale, and assumptions. These scientific syntheses may include meta-analyses and cost analyses. All EPCs collaborate with other medical and research organizations so that a broad range of experts is included in the development process.

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Choosing topics

- Treats a common and costly condition
- Important to Medicare
- Evidence of inappropriate variations in treatment
- Clinical uncertainty
- Existence of some evidence
- Maintenance of balance in the overall EPC topics

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Differences between evidence reports and clinical practice guidelines

- **Evidence reports**
  - Systematic review and summary of literature
  - Synthesize data objectively
  - Make recommendations for future research
  - Make **NO** clinical recommendation
- **Clinical practice guidelines**
  - Not necessarily evidence-based
  - Synthesize multiple sources of information
  - May incorporate value judgments
  - Make recommendations for future research
  - Make practice recommendations

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AHRQ designated EPCs

- Blue Cross and Blue Shield Association, Technical Evaluation Center (TEC), Chicago, IL
- Duke University, Durham, NC
- ECRI, Plymouth Meeting, PA
- Johns Hopkins University, Baltimore, MD
- McMaster University, Hamilton, Ontario, Canada
- MetaWorks, Inc., Boston, MA
- New England Medical Center, Boston, MA
- Oregon Health Sciences University, Portland, OR (a)
- Research Triangle Institute and University of North Carolina at Chapel Hill, NC (a, c)
- Southern California Evidence-based Practice Center-RAND, Santa Monica, CA (b)
- University of California, San Francisco and Stanford University, Stanford, CA
- University of Texas Health Science Center, San Antonio, TX

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Center for Clinical Evidence Synthesis

- AHRQ EPC
- New England Cochrane Center (Boston Office)
- Training Evidence-Based Practitioner
- Evidence-based Clinical Practice Guidelines (National Kidney Foundation)
- Cochrane Pain Review Group
- Methodological research
- Graduate master/doctoral degree training program
- Other clinical research (temporal mandibular joint disorder)

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Examples of other EPC topics

- Evaluation and treatment of new onset of atrial fibrillation in the elderly—1997
- Treatment of acne—1998
- Anesthesia management during cataract surgery—1998
- Treatment of coexisting cataract and glaucoma—1999
- Bioterrorism:Training for rare public health event—2000
- Blood pressure monitoring, outside of clinic setting—2000

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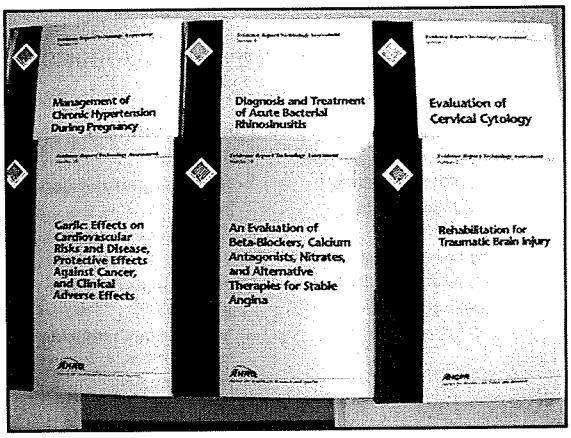
Examples of other EPC topics

- Depression treatment with new drugs—1997
- Management of chronic hypertension during pregnancy—1998
- Use of garlic for cardiovascular disease—1999
- Use of silybum marianum in treatment of liver disease and cirrhosis—1999
- Defining and managing chronic fatigue syndrome—2000
- Medical harms workshop—2000

24



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Typical AHRQ EPC Evidence Reports

- Systematic review of a topic
- Several key questions (prevalence, diagnosis, management)
- Evidence tables, meta-analyses, decision/cost-effectiveness analyses
- Average total costs US$250,000
- Takes about 12 to 18 months to complete
- Screen >10,000 abstracts
- Examine 500+ full articles
- Synthesize 100 to 300 articles
- 100 to 400 pages in length

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National Guidelines Clearinghouse

- Internet based searchable website
- Collaborative project of AHRQ, American Medical Association, American Association of Health Plans
- Structured abstracts and full text of over 500 clinical practice guidelines
- Allows comparisons of CPGs on similar topics
- Annotated biliographies

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Academic institutions

- Pre-clinical course in EBM to medical students
- Journal Clubs for house staff
- Many websites

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Professional Societies

- American Academy of Family Physicians (AAFP), American College of Physicians, American Academy of Pediatrics, American Society of Clinical Oncologists

- Clinical practice guidelines
- Courses/workshops at annual meetings

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National Kidney Foundation

- National Kidney Foundation: Evidence-based Clinical Practice Guidelines (mid 1990s)
  - Dialysis Outcomes Quality Initiative (DOQI)Kidney
    - Vascular access
    - Anemia of chronic renal failure
    - Nutrition in chronic renal failure
    - Hemodialysis adequacy
  - Kidney Disease Outcomes Quality Initiative (K/DOQI)
    - Classification of chronic kidney disease (CKF)
    - Management of dyslipedmia in CKF
    - Management of bone disease in CKF
    - Management of hypertension in CKF

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Other Groups involved in EBM

- Health care insurers
  - Blue Cross/Blue Shield – Technology Assessment Center (TEC)
- Health care technology assessment and consultation companies
  - ECRI
  - RAND Corporation
- For profit companies
  - Mostly do contracts for pharmaceutical companies

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U.S. Medical Journals
(some examples)

- Annals of Internal Medicine
  - ACP Journal Club
- Journal of Family Practice
  - Evidence-Based Practice (Patient-Oriented Evidence that Matters [POEMS])
- JAMA, J Clin Epidemiol
  - Published many meta-analyses and EBM / M-A methodological articles

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Pharmaceutical companies

- Systematic reviews / Meta-analyses
  - Identify opportunities for secondary indications
  - Help plan future studies
  - Understand competitors positions (marketing)
- Pharmacoeconomic analyses
  - Cost-effectiveness analysis

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New England Medical Center EPC Task Orders

- Diagnosis and treatment of acute sinusitis-1997
- Management of cancer pain-1998
- Evaluation of technologies for identifying acute cardiac ischemia in the emergency department-1999
- Assessment of PET scan-2000
- Management of allergic rhinitis-2000
- Criteria to determine disability for infant/childhood impairments-2000
- Management of Adrenal Incidentaloma-NIH Consensus Development Conference-2001

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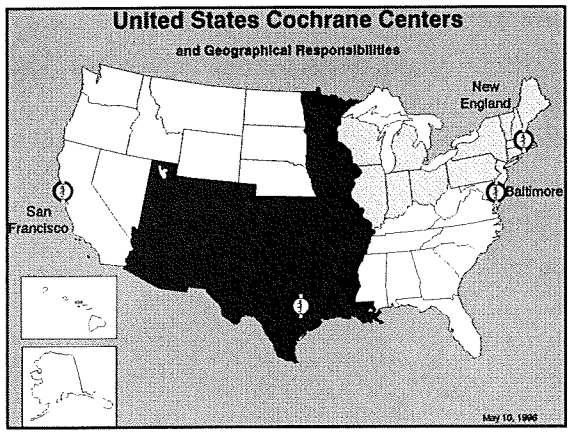

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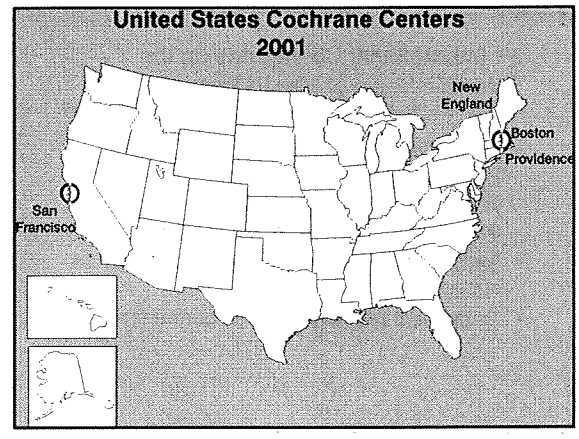

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Some Challenges faced by U.S. Cochrane effort

- Lack of funding to support infrastructure
  - Difficulty of demonstrating value of systematic reviews (difficult to measure impact)
  - Difficult to get government funding for "international effort"
  - Why should I fund it so that others will use it!
- Lack of centralized support for effort
- Uncertain values of systematic reviews published only in Cochrane Library (academic promotion)
- Relative lack of awareness by most clinicians
- Preoccupation with managed care and costs

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Summary of the state of EBM in the U.S.

- Diverse approaches, no single major focus
- Loose connections of different groups
- Many stakeholders
- Individual US researchers are involved in many methodological innovations
- Has lagged behind some developed countries in overall awareness and implementation
- Increasing awareness and rapidly catching up

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3rd International Conference on the Scientific Basis of Health Services

Oct 1-3, 1999, Toronto, Canada. Newman L. Lancet, October 1999.

- Several presenters acknowledged that improvements of the uptake of evidence into clinical practice has proven more difficult than expected.
- Clear call to press on with new strategies that are more cognizant of the localized and organizational context of care, information systems, and behavioral strategies to optimize evidence-based health care.

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3rd International Conference on the Scientific Basis of Health Services

Oct 1-3, 1999, Toronto, Canada. Newman L. Lancet, October 1999.

- C. David Naylor from University of Toronto: "enormous number of gray zones (lack of RCTs)" in EBM "a growing need to learn how to respond to that zone of uncertainty".
- Evidence movement must move beyond classical EBM to incorporate multicultural, organizational, patient-centered, and reality-based values" and the "context of care".
- He is placing his bets on an "improved info-structure" including unified electronic medical records, patient-centered decision support tools, and structured information and practice guidelines.

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3rd International Conference on the Scientific Basis of Health Services

Oct 1-3, 1999, Toronto, Canada. Newman L. Lancet, October 1999.

- John Eisenberg MD, Director of AHRQ: Evidence-based health care will play out differently across the globe depending on the sociopolitical realities and cultural values.
- "globalization of evidence and localization of application"
- "implement research through partnership"

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International Symposium on "EBM and Policy Development"
National Institute of Public Health, Tokyo, Japan
16 February 2001, Tokyo, Japan

EVIDENCE-BASED MEDICINE (EBM) MOVEMENT IN CHINA

MING LIU

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First of all, I would like to give many thanks to the National Institute of Public Health of Japan and Dr. Tsutani for inviting me to come here and for giving me an opportunity to exchange ideas and information on evidence based medicine between Japan and China and U.S. Also with this opportunity I learned some useful methodology on meta-analysis from Dr. Lau. So I think this is a very good time for me.

Now I would like to talk something about Evidence-Based Medicine movement in China and the Chinese Cochrane activities. In China, we have many Chinese translations of Evidence-Based Medicine. First is, (1) 循証医学. This is the most widely accepted translation. That means you based your decision on evidence. This is the another translation (2) 実証医学. That means you should use the very concrete evidence to practice medicine. This is (3) 求証医学. That means you look for the evidence. (4) 証拠医学 it simply means evidence medicine. This is (5) 尋証医学 which means you search for evidence. We in the Chinese Cochrane Center use this translation (1) 循証医学.

Why does China need evidence-based medicine? As a developing country, in China we have limited resources but we have huge demand for healthcare. One of the task for us is to provide primary health care for every Chinese people in the year 2000. It is hard for us to meet this task because of the very limited resources. The cost of health care in China is very high and this is a major complaint of Chinese people to the health service system. The Chinese always complain that the cost of health care is too high for them to afford. People want to have very cheap, affordable service but of high quality. So their expectation of healthcare has become higher. Also there is now a lot of treatment methods available. It is hard for us doctors to choose the right treatment for a patient.

Let me give you an example. This is a comparison between China and the U.K. It is about stroke care in China and U.K. These are the commonly used treatments for Chinese acute stroke patients. This is the percentage of doctors who said that they used this treatment routinely and this is the percentage of doctors who said they were using this treatment routinely in U.K. These are the evidence. So we can see that among all the 8 treatments, only this one and this one have sufficient evidence to support their routine use. So there is a big difference between Chinese practice and U.K. practice. This is what Dr. Lau has mentioned, that there is a big variation between healthcare practices in different countries.

There are also many common treatments for cancer and some other chronic diseases. These treatments include Chinese medicines and many other therapies. It is very hard to choose the one which is truly effective.

Power point, Slide of the lecture printed. pp. 47-51

In 1995 in Oxford, I had a good opportunity to attend a course on evidence-based medicine thought by Dr. David Sackett. This is the first evidence-based medicine course conducted by him in U.K. He was invited by the government of U.K. to set up an evidence-based medicine center in Oxford. From this course I learned evidence-based medicine. I thought it is very useful for a doctor. But in China there is a lack of awareness of evidence-based medicine. Also reliable evidence is not easy to find. There is not much evidence available to use especially in some field. And also reliable evidence is not easy to produce. The quality of evidence is far from satisfactory. According to our analysis, for Chinese study, Chinese clinical trials, we found this is a problem. We think we also need to know this. So China needs evidence-based medicine.

So in July 1996, we proposed to formally set up a Chinese Cochrane Center and join the international cochrane collaboration to promote and support evidence-based medicine movement in China. In July 1997, this proposal was approved by the Ministry of Health of China. In March 1999 Chinese Cochrane Center was officially opened. Our objectives are as follows. The first is to train people to promote evidence-based medicine. We should have some key persons to promote evidence-based medicine and teachers to teach evidence-based medicine to others. The second is to set up a Chinese database to provide best available evidence for decision-makers which include clinical decision makers and policy makers and make this evidence accessible. We will also train health researchers to produce reliable evidence.

Firstly, in China the situation is different with developed countries like Japan, America, U.K. or some other countries. They have much room to promote something. At the very beginning, we realized that we should involve government officials to the evidence-based medicine movement. That is perhaps the most efficient way. In the early 1996, a group of Chinese Ministry of Health officials went to the U.K. Cochrane Center in Oxford (at that time I was a translator for these officials). So these officials came to know about evidence-based medicine in the early 1996 and then they said that soon or later Chinese would have such kind of a center in China. In late 1997, they approved our proposal. They also attended several conferences on evidence-based medicine - both national and international conferences. They urged and helped us to apply for funding from WHO, and they helped us to organize the workshops and conferences on EBM. In China, there could be some documents from the government which ask people to attend some important meetings. MOH issued this kind of documents to ask the administrators in the government health system to attend evidence-based medicine conferences. In 1997, the vice minister came to our university to see if there is a possibility to set up a Chinese Cochrane Center in our university. She also visited the Clinical Epidemiology Unit. This is Professor Wang who is a leading clinical epidemiologist in China. He is also a cardiologist. He gave us support to establish the Chinese Cochrane Center. So clinical epidemiologists understand evidence-based medicine better than other people.

These are some of the conferences which involve the Ministry of Health. This is the first Asian-Pacific Conference on Evidence-based Medicine which was held in October 2000. This conference was officially supported by the Ministry of Health. These are the speakers we invited from European countries. This is the first evidence-based medicine conference for health administrators. We held this conference for the benefit of health administrations. Specifically, this conference deals with management of healthcare. Some of them are officials in the local government health agencies. Some of them are directors of hospitals.

Two officials from the Ministry of Health went with us to South Africa in Capetown to attend the Cochrane Colloquim. In the conference they also encouraged to hold a future Cochran Colloquim in China. So the support from the Ministry of Health provided so much encouragement, the political support. Although they did not give much financial support but political support is very important and they also gave us the authority. So with their approval the Chinese people will think that what we are doing is right, so many professionals and some other people will be encouraged to participate because the evidence-based medicine movement is very important for the Chinese situation.

More works have been done by our Cochrane Center especially in carrying out these two tasks - one is training and support - because not many people know the concept of evidence-based medicine. So first we should train. The trainees in our workshops include health professionals. These group of people are mostly in evidence-based medicine field. And the editors and the chief editors of medical journals. We think that they play a very important role to introduce evidence-based medicine and promote the publication of high quality studies in their journals. And also the policymakers. In these workshops we teach evidence-based medicine knowledge -- how to find use and produce evidence, systematic reviews and how to evaluate randomized controlled trials. And then we have set up a database which included Chinese studies published in Chinese. For the English studies we can refer to the

Cochrane Library. So we just set up the Chinese database to provide evidence for Chinese people and also provide data to the people who are interested in conducting systematic reviews in the world. These data are also published in the Cochrane Library. So the database contain randomized controlled trials. We plan to include systematic reviews and meta-analysis on Chinese medicine.

This is one of our workshops and symposiums for chief-editors of Chinese medical journals which was held in April last year. They came from about 70 Chinese medical journals which are mostly authority journals, which is called Chinese medical journals series -- Chinese Journal on Neurology, Chinese Journal on Cardiology, Chinese Journal of Internal Medicine and Chinese Medical Journal, etc. These are the leading journals which can influence the quality of researches and interest in evidence-based medicine.

When I came back from U.K. in 1997 I sent my paper on evidence-based medicine to one of the journals but they just ignored it. They do not know what it is so they did not publish it. So I submitted my paper to another less faster journal and the paper was published. But after our first symposium, many of the journals came to us and asked us to contribute papers to introduce evidence-based medicine and meta-analysis. Now some years later they realized that, and always ask us to publish in their journals.

These are some of the activities from the professional community. This is the leading person in clinical epidemiology, and he joined us to talk in one of our workshops. They showed great interest to be involved in the Cochrane Collaboration and evidence-based medicine movement. These are the meetings that we had. This was in 1997. We just discussed is it possible or is it necessary to have evidence-based medicine in China. So we had consultation meetings and we identified potential collaborators from these meetings.

In 1996 there is no formal organization to promote evidence-based medicine. There is no formal organization to be involved in evidence-based medicine. But now in China there are a number of institutes and organizations involved in evidence-based medicine. The first one is our center which located in Chengdu. And there is one in Beijing which is in the Beijing Union Medical College. They invited some American doctors to come to their university to work there for 3 years to help them do works on evidence-based medicine. They also came to our center and asked us to help them in this project and we gave help to them. In Guangdong, there is a provincial health center involved in evidence-based medicine. They called it Guangdong Province Evidence-Based Medicine Center which is located in Zhongshan Medical University and is supported by their provincial government funding agency. In Shanghai, the evidence-based medicine movement was promoted by the clinical epidemiologists. The clinical epidemiology departments in Shanghai are very active in this movement.

Now we have quite a network but we still have a lot of work to do. This is our plan for the future. The Chinese Cochrane Center will not only do the Cochrane activities because of the Chinese situation we cannot just focus on a very narrow area. We have to do more things and then we can survive. So we first established the Chinese Cochrane Center and now the Department of Clinical Epidemiology has merged with our Center. So now we have functions in clinical epidemiology and evidence-based medicine education. We do a lot of education work. We sometimes have trainings and workshops for health technology assessment (HTA) because the Ministry of Health is very much interested in HTA. They are thinking about issuing some laws or some documents about how to control the overuse of very expensive technology in China. They want to conduct systematic reviews and Cochrane activities. Because many original studies for systematic reviews have very poor quality. We should also promote high quality clinical research and clinical trials.

Why do clinical trials in China not have produced many high quality clinical trial results? It is partly because we lack the supportive system for clinical trials. For example, randomization. It is hard to conduct a real randomization. Although some people published their papers saying that it is a randomized controlled trial, many of them are not really randomized trials because they lack the supportive system. So we will set up a supportive center there. We also plan to disseminate evidence-based medicine knowledge with our editorial office to publish EBM journal and other publications. It seems to be a very ambitious plan for China but we have to do our best.

We have some advantages and feasibility because we have very strong support from the government and from the international community. We have various support from the Chinese government and universities and from the international cochrane collaboration from U.K., Australia, United States, Sweden and Germany. So with help from the international Cochrane Collaboration and from the Chinese government we are confident to do better work in the future and we will try our best. Thank you.

Evidence-based medicine movement in China

——the role played by the Chinese Cochrane Center

Ming Liu, MD
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West China University of Medical Sciences

1

Different translation for EBM

- 循証医学
- 実証医学
- 求証医学
- 証拠医学
- 尋証医学

2

Why dose China need evidence- based medicine?

3

Background

- A major challenge to health care in China:

Resources < Huge demands

- Cost in health care: increasingly heavy burden
- A lot of alternatives of treatments: hard to chose

4

Reported treatments for acute ischemic stroke in China and UK

Treatment	Routinely used(%)		Evidence
	In China	In UK	
Glycerol/mannitol	69	<1	Insufficient
Chinese herb products	66	0	Insufficient
Aspirin	54	39	Sufficient
Calcium antagonists	53	<1	Insufficient
Dextran	44	0	Insufficient
Snake venom products	30	0	Insufficient
Steroids	19	<1	Insufficient
Stroke unit	0	>50	sufficient

5

Problems

- Many widely used treatments are lack of evidence for their effectiveness
- Some useful treatments are not applied
- Waste is high

6

An EBM course of David Sackett in Oxford, 1995

7

Some of the reasons for above problems

- Lack of awareness of evidence based medicine
- Reliable evidence is not easy to find
- Reliable evidence is not easy to produce:
  - -- Number and quality of evidence are far from satisfactory

8

China needs evidence-based medicine

- In July 1996, we proposed formally to set up a Chinese Cochrane Center and joining the international Cochrane Collaboration to promote and support EBM movement in China
- In July 1997, proposal was approved by MOH of China
- In March 1999, ChiCC officially opened

9

Our objectives:

1. Training people to promote EBM
2. Setting up a Chinese database to provide best available evidence for decision makers and make evidence accessible
3. Training health researchers to produce reliable evidence

10

The role played by MOH

- Approved officially to set up a Chinese Cochrane center in WCUMS, Chengdu in July 1997
- Attended 5 conferences on EBM (national and international) and gave talks on EBM
- Help us to apply funding from WHO
- Help to organize workshops and conferences (issued documents to request health administrators and officials to attend EBM workshops and conferences)

11

- MOH support:

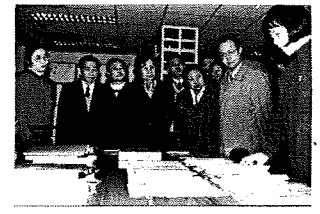
→ on-site inspection

→ set up a steering group

12

Vice Minister visited the CEU

13



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The 1st Asia-Pacific Conference on EBM
Oct 6-8, 2000, Chengdu

15

The 1st EBM Symposium for Health Administrators
Nov 26-29, 2000 Chengdu

16

Attended the 8th Cochrane Colloquim and encouraged us to hold a Colloquim in China

17

Supports from the Ministry of Health:

- **Encouragement**
- **Authority**
- **Very important to EBM movement considering the Chinese situation**

18

Main work done by ChiCC:

- Training and support
  Trainees: Health professionals, editors & policy makers
  Contents: EBM knowledge, Finding, using & producing evidence (SR and RCT)

- Setting up a database--providing evidence and making it accessible

  Contents in this database:
  RCTs & SRs in major diseases & tranditional Chinese medicine in first instance

19

The 1st EBM Symposium for Chief Editors and Editors of Leading Chinese Medical Journals
April, 2000 Chengdu

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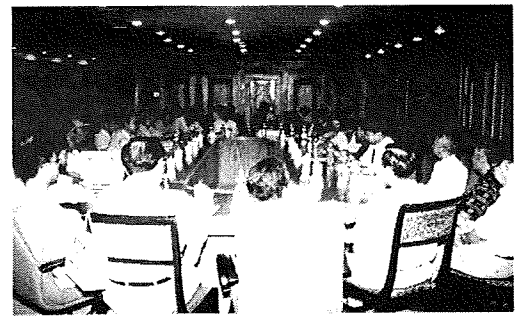
Conferences and workshops for health professionals:

21

Identified potential collaborators



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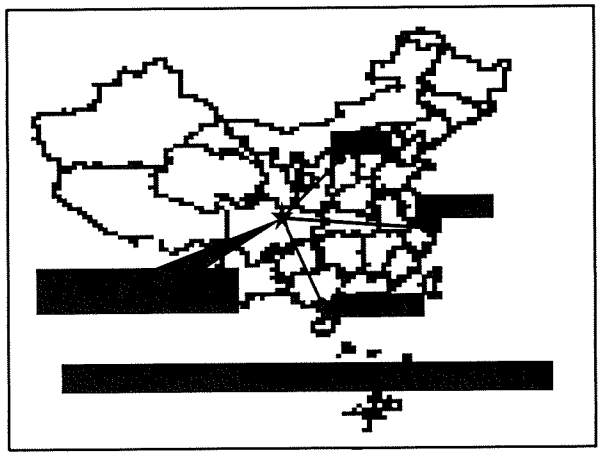

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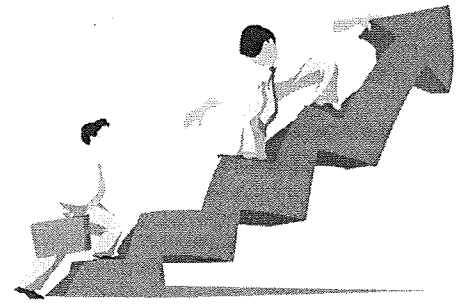
The plan for future

Multiple functions:

- Cochrane Center
- Clinical epidemiology and EBM education
- HTA Center
- Clinical trial/research supportive center
- Center for disseminating EBM knowledge with an editorial office for EBM journal and other publications

24

Various supports from Chinese government, university, hospital, Cochrane Collaboration, UK, Australia, US, Sweden, and Germany



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International Symposium on "Evidence and Policy Development"
National Institute of Public Health (NIPH)
Tokyo, Japan , 16 February 2001

POLICY AND POLITICS OF EVIDENCE-BASED MEDICINE IN JAPAN

KIICHIRO TSUTANI

Dept. of Clinical Pharmacology, Div. of Information Medicine
Medical Research Institute, Tokyo Medical and Dental University

Policy and politics on EBM in Japan

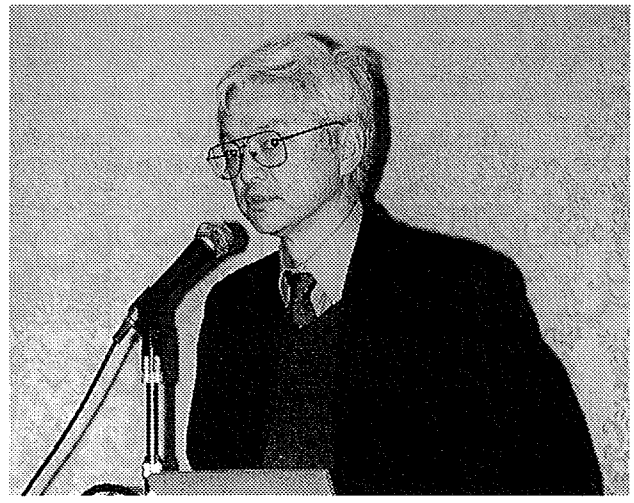
International Symposium on
"Evidence and Policy Development"
the National Institute of Public Health (国立公衆衛生院)
Miyako Hotel, Tokyo, Japan
16 February 2001 (Friday)

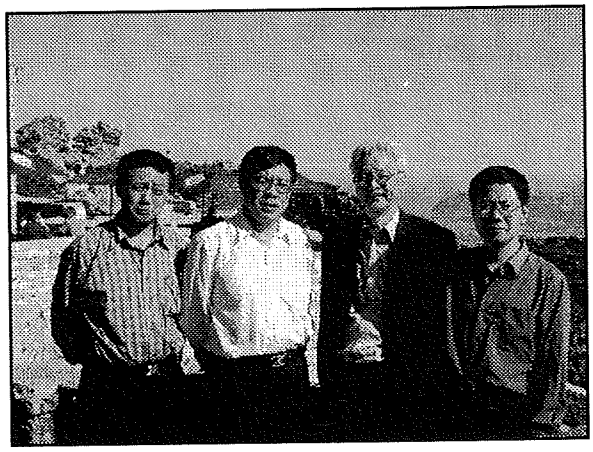
Kiichiro Tsutani M.D.,Ph.D.
Dept. of Clinical Pharmacology, Div. of Information Medicine
Medical Research Institute, Tokyo Medical and Dental Univ.

1

Slide 1 Policy and Politics of Evidence-Based Medicine in Japan

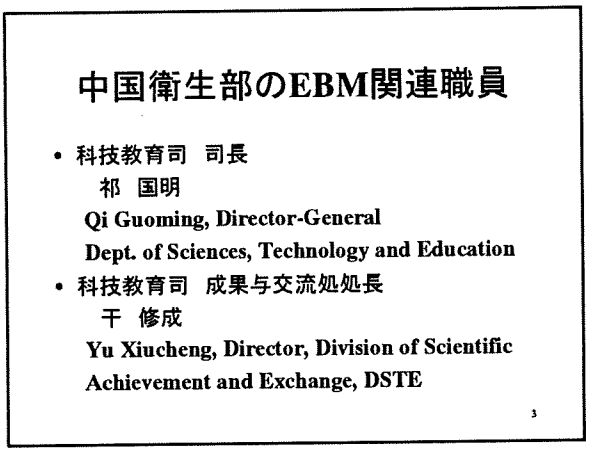
The organizing committee of this symposium first planned to invite someone from the Ministry of Health, Labor and Welfare (MHLW) to give this talk but the Committee was told that the Ministry could not accept the invitation because they had just merged in January 2001 (the former Ministry of Health and Welfare (MHW) and Ministry of Labor (MOL)) and were now busy with their reorganization. The staff in charge of EBM had just been changed, and so I was asked to give this talk. I accepted the invitation for two reasons.





Slide 2 ***Ministry of Health staff engaged in EBM-related activities in China***

This picture was taken when I attended the last Cochrane Colloquium in Capetown, South Africa in October 2000. Dr. Liu Jianping, who is shown on the right, is the Chinese epidemiologist who is now doing a systematic review of Chinese herbs used in the treatment of hepatitis. A copy of his paper is on your table and you will hear his lecture tomorrow. The two other gentlemen on the left are senior officials of the Ministry of Health, China.

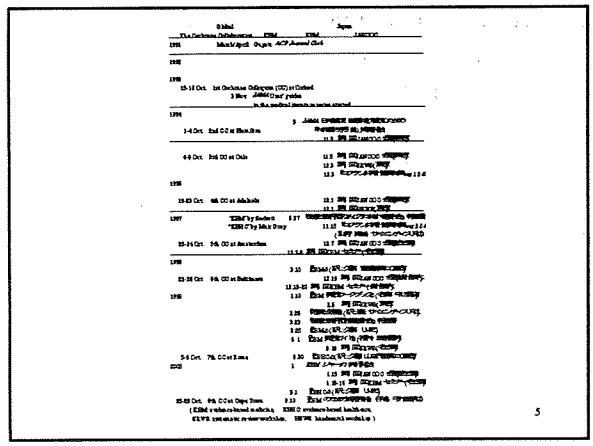


Slide 3 ***Senior officials related to EBM and the Cochrane Collaboration in the Ministry of Health, China***

They are Dr. Qi Guoming, Director-General, Department of Science and Technology, and Dr. Yu Xiucheng, Director, Division of Scientific Achievement and Exchange (DSTE), both from the Ministry of Health (MOH), China. I was surprised to learn of their participation at the Colloquium. So far, there has been no participant from our Japanese Ministry of Health and Welfare to the Cochrane Colloquium, nor from the National Institute of Public Health (NIPH). After my discussions with them, I realized the importance of government participation in these forums for the further improvement of the EBM movement in Japan, including a systematic review, such as the Cochrane Review. So that is the first reason why I accepted this invitation—to talk about the policies and politics of EBM in Japan.

Slide 4 ***News article on the suspension of the NIPH project on clinical information database***

And this is the second reason. This news item appeared in one of the health newsletters in Japan in August 2000. It reported on the suspension of the project on clinical information database being established by the NIPH. The Liberal Democratic Party (LDP), leading party which is backed by a strong Japan Medical Association (JMA) was against this project. Now we ask, why do such things happen in Japan? This is the second issue and I thought that I should review the past history and the politics of this issue in Japan.



Slide 5 Major EBM events in Japan and other parts of the globe

On page 6 of your handout, you will find a table showing the major events in Japan and other countries in the field of EBM. (Tsutani, K. *The Cochrane Collaboration systematic review: its role in the EBM movement.* National Institute of Public Health, 2000, 49(4): 313-9 (in Japanese)). On the left column are the Cochrane Collaboration and EBM events at the global lebel, while on the right, the Japanese events (EBM and JANCOC). JANCOC stands for the Japanese Informal Network for the Cochrane Collaboration.

The term "evidence-based medicine" first appeared in the *ACP Journal*, which started in 1991. The first Cochrane Colloquium was held in 1993. Also in the same year, JAMA started to publish a series on a reader's guide to the medical literature. The Japanese translation of the JAMA series first appeared in 1994, the same year JANCOC was established. And in 1995, the first systematic review workshop was held in Japan, although on a rather small scale. It was just a half-day workshop. The hand-search workshop was conducted in 1996. In 1997, the famous book on EBM by David Sackett was published. That same year, three major events took place in Japan. One was the publication of the government report on Health Technology Assessment (HTA), in June. In November, the compilation of papers on the Cochrane Collaboration was published in Japanese. And then, in December, the first EBM seminar was conducted in Nagoya. This last seminar was very successful. It would be safe to conclude using Japanese reign style that 1997 is "the first year of EBM era in Japan", i,e., EBM first started in Japan. Since then there have been around 50 workshops and seminars on EBM conducted in Japan, and quite a number of books and journals on EBM have been published.

「医療技術評価のあり方に関する検討会」報告書(1997.6.27)

- 1996.12- 会議6回
- member 14人
  (大学7, 病院2, 日本医師会, 日本歯科医師会, 日本看護協会, 国立医療・病院管理研究所, (財)ヒューマン・サイエンス振興財団)

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Slide 6 The first HTA report in June 1997

As I mentioned earlier, the first report on HTA was published in 1997 by a group set up by the Government. The group, which had met six times since December 1996, consisted of 14 members—7 from academia, 2 from the hospitals, and one each from the Japan Medical Association (JMA), the Japan Dental Association (JDA), the Japanese Nursing Association (JNA), the National Institute of Health Service Management (NIHSM), and the Japan Health Sciences Foundation, a quasi government agency.