



MICHIGAN ASSOCIATION  
OF HEALTH PLANS

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# *Michigan Association of Health Plans*

## **WHITE PAPER**

### **THE VALUE OF EVIDENCE BASED MEDICINE**

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*The mission of the Michigan Association of Health Plans is to provide leadership for the promotion and advocacy of high quality, affordable, accessible health care for the citizens of Michigan.*

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***EBM White Paper: 2011***

*Michigan Association of Health Plans • 327 Seymour, Lansing, MI 48933 • 517-371-3181*  
[www.mahp.org](http://www.mahp.org)

# The Value of Evidence Based Medicine

## A White Paper of the Michigan Association of Health Plans

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This paper, written by Lisa Farnum and Christine Shearer, was developed for the Michigan Association of Health Plans Medical Directors: Thomas Petroff, DO, Chair; Howard Burgess, II MD, Vice Chair; Robyn J. Arrington, Jr., MD; Charles Baker, MD; Joseph L. Blount, MD; James F. Byrne, MD; James D. Forshee, MD; Richard Frank, MD; James Kerby, MD; John D. Meier, MD; Michael M. Mlsna, MD; Naim Munir, MD; Thomas Raskauskas, MD; David Siegel, MD, MPH; S. Keith Tarter, MD, MPH; and Mark Tucker, MD. Thank you to Dr. Lara Rusch of the University of Michigan, Dearborn for advising on the project.

## Executive Summary

Measuring and improving the quality of health care continues to be an important focus for physicians, health care organizations and policymakers. There is increasing awareness of the gap between current medical knowledge and actual clinical practice.<sup>1</sup> In addition, across geographical regions there is significant variation in the use of medical treatments without evidence of improved outcomes. Evidence Based Medicine (EBM) is a process that compiles and analyzes the evidence with the purpose of determining whether a treatment improves outcomes -such as freedom from pain or disability, that are meaningful to the patient.<sup>1(pg.66)</sup> Health Plans and providers use evidence-based approaches daily in determining treatments and coverage.

Benefits derived from practicing evidence-based medicine:

- Identify diagnostic tests or treatments that are unnecessary or potentially harmful, with the ability to determine the pervasiveness of these tests in their populations.
- Identify patients with indications of poor disease control, such as low adherence to prescribed medication regimens.
- Reduce potentially harmful drug-to-drug or drug-to disease interactions.
- Assists health plans and providers to change and apply quality measurements.
- Measures quality within national standard specifications and other solid evidence-based guidelines built around EBM to provide a robust approach to measuring compliance.

The measure development process begins with a thorough review of the evidence. Clinicians review published literature on evidence-based medicine including:

- guidelines from specialty and professional organizations and clearinghouses.
- published clinical trials and other relevant articles.
- supporting literature and the ability to adequately define and measure care using available data.
- requirements set forth in the Patient Protection and Affordable Care Act (PPACA), that specifically recognizes evidence based medicine in medical decision making by doctors when deciding treatment options for patients and when determining the medical necessity of a treatment.

The purpose of EBM is to provide a strong scientific foundation for clinical work, to achieve consistency, efficiency, effectiveness, quality and safety in medical care.

## I. EBM Background

### 1. Introduction

Evidence-Based Medicine (EBM) recognizes that many aspects of medical care depend on individual factors such as quality and value-of-life judgments, which are only partially subject to scientific methods. EBM seeks to clarify those parts of medical practice that are, in principle, subject to scientific methods. And it applies these methods to ensure the best *prediction* of outcomes in medical treatment, even as debate about which outcomes are desirable continues.

Medical decision making guidelines in the past were simply a means for experts to pass pieces of advice to non-experts.<sup>1(pg.10)</sup> “Medically indicated” or “necessary” meant if a majority of physicians were doing it, it was medically necessary and should be covered by insurance. Today medically necessary in the practice of medicine has commonly come to mean “I think it is a good idea.” This approach is not an adequate standard for physicians or policymakers. The purpose of this White Paper is to clarify what EBM looks like, what constitutes the sound scientific evidence that these guidelines should be based on, and show the benefits of adopting evidence based policy.

Practicing evidence-based medicine requires clinical expertise. It also requires expertise in retrieving, interpreting, and applying the results of scientific studies as well as communicating the risks and benefits of different courses of action to patients. Therefore, this White Paper will also address closing the gap between clinical research and what is actually happening in clinical practice and the need for documented evidence.

The Michigan Association of Health Plans (MAHP) believes the practice of medicine is clearly broader than individual physicians’ decision making; it’s a mixture of guidelines, incentives, coverage, quality improvement, performance measurements, disease management and a wide variety of other influences. Mandates for treatment coverage that are not based on sound scientific evidence jeopardize our ability to deliver the most cost-effective treatments to the greatest number of patients. A lack of clear guidelines in determining treatment options and flawed statistical reasoning has led to therapies being expanded to groups that may not greatly benefit.

MAHP has developed this paper to inform policy makers, advocates, physicians, insurance providers and special interests what is meant by the term “Evidence-based medicine” and why policies based in evidence are essential. MAHP strongly believes that the practice of medicine should not be legislated. New effective treatments and proven therapies become available almost daily. Treatments must not be generalized to entire populations based on best guesses; patients need access to new treatment options as they become available rather than having to wait until legislation can be amended to allow for their use. EBM can provide a guideline based in evidence to physicians, insurers and policymakers when making patient specific treatment decisions and public policies.

## 2. Defined

The definition used by the Centre for Evidence-Based Medicine states “Evidence-based medicine is the conscientious, explicit and judicious use of current best evidence in making decisions about the care of individual patients.<sup>2</sup> The practice of evidence-based medicine means integrating individual clinical expertise with the best available external clinical evidence from systematic research.” EBM provides the framework for evidence-based care grounded on the philosophy of effective care with the least harm, and heavy emphasis on best quality evidence. Furthermore, best external clinical evidence means clinically relevant patient centered research, the accuracy and precision of diagnostic tests, as well as the safety and efficacy of therapeutic and rehabilitative courses of therapy.<sup>3</sup>

## **II. Components of EBM – What It Looks Like**

EBM is more than a simple philosophy or checklist. Evidence-based practice is intertwined within the clinical experience and generally accepted standards of care. External clinical evidence can invalidate previously accepted norms of diagnostic tests and/or therapies and bring to light treatments that are more efficient, accurate and safer. Guidelines for treating newly diagnosed cases of hypertension for example, were revised after findings from the evidence-based ALLHAT (Antihypertensive and Lipid Lowering Treatment to Prevent Heart Attack Trial) hypertension study were released. The study showed less costly, traditional diuretics are more effective than newer medicines at lowering high blood pressure and preventing some forms of heart disease.<sup>4</sup> Clinical experience is vital in connecting scientific evidence to actual clinical outcomes. Clarifying some of the terms used in defining EBM will facilitate an understanding of what EBM looks like.

### 1. Medically Indicated and Medically Necessary

Medically indicated is something that points to or suggests the proper treatment of a disease, as that demanded by its cause or symptoms.<sup>5</sup>

A proposed statutory definition by the Connecticut State Legislature, and used in most managed care contracts, defines the term “medically necessary” as “any health care service or procedure that a prudent practitioner of the healing arts, would provide to a patient for the purpose of preventing, diagnosing or treating an illness, injury, disease or its symptoms in a manner that is (1) *in accordance with generally accepted standards of care*, (2) clinically appropriate in terms of type, frequency, extent, site and duration, (3) not primarily for the convenience of the patient, and (4) within the scope of practice of such practitioner.”<sup>5</sup>(pg.3) 1

Medical necessity in relation to EBM is the appropriateness of a specific treatment for a particular patient in accordance with generally accepted standards of care; this involves an individual assessment and not a general determination of what typically works for most patients. EBM is a method of balancing *scientifically proven* treatments with the clinical judgment of a physician for a specific patient.<sup>6</sup>

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<sup>1</sup> Refer to Appendix A, pg. 13 for Stanford definition of Medical Necessity.

## 2. Medical Evidence-Generation as part of Standards of Care

Generally accepted standards of medical practice mean standards of care “are based on credible scientific evidence published in peer-reviewed medical literature generally recognized by the relevant medical community or otherwise consistent with the standards set forth in policy issues involving clinical judgment.”<sup>5</sup>(pg.3)

Without the use of current best evidence, medical practices can become outdated to the detriment of the patient.<sup>7</sup> An EBM framework can assist experts to retrieve, evaluate, synthesize the evidence based on meta-analysis, summarize the benefits and risks, and determine--or reevaluate the appropriateness of a treatment. For example, for years radical mastectomy was the standard of care for breast cancer. Surgeons, physicians and patients believed it was the most effective treatment in comparison to other approaches, despite its high mortality rates and disfigurement. After decades of radical mastectomy procedures being the norm, a randomized trial was conducted in the 1990's. The trial revealed a mastectomy was not more effective than other available, less invasive treatments. If not for the trial, it could still be the standard for treatment of early-stage breast cancer today.<sup>7</sup>(pg.68)

## 3. Peer Reviewed

Peer-reviewed journals are those that require submitted articles to be reviewed and approved by a group of experts in the field prior to publication. This process helps to ensure that the articles selected for publication represent a high standard of scholarship.

## 4. Scientific Evidence/Standards of Evidence

- Evidence is known to be effective in improving health outcomes.
- Scientific evidence consists principally of controlled clinical trials that directly or indirectly demonstrate the effect of the intervention on health outcomes.
- When controlled clinical trials are not available, observational studies that show a causal relationship between the intervention and health outcomes are used.
- Clinical trials are a set of procedures in medical research conducted to allow safety and efficacy data to be collected for health interventions (e.g., drugs, diagnostics, devices, therapy protocols).
- A randomized controlled trial (RCT) is a type of scientific experiment most commonly used in testing the efficacy or effectiveness of healthcare services or health technologies (to confirm whether a new treatment causes an effect).
- For new interventions, effectiveness is determined by scientific evidence.

In the absence of scientific evidence the determination of correlations can be misinterpreted. Thus resulting in the misapplication of correlation-only evidence being examined. In the 1950's ice cream was suspect in the polio epidemic because cases of polio increased in summer- just like ice cream consumption!

Source: Miller<sup>8</sup>

- New interventions for which clinical trials have not been conducted because of epidemiological reasons shall be evaluated on the basis of professional standards of care or expert opinion.
- For existing interventions, effectiveness is determined first by scientific evidence, then by professional standards, and then by expert opinion.

Source: Garber, Stanford Health Policy <sup>6(14-16)</sup>

### 5. Comparative Effectiveness Research-The Backbone of EBM

Clinical research can give providers and physicians information on treatment and diagnostic options by utilizing data from actual clinical outcomes. According to the Institute of Medicine, more than half the treatments delivered in the United States lacked clear evidence of effectiveness; mostly due to incomplete information or limited access for physicians to needed information.<sup>9</sup>

In clinical trials, statistical data consists of observations or measurements such as blood pressure, white cells counts, medication doses and frequency to name a few. Comparative Effectiveness Research (CER) is a method that can be utilized to bridge the gap between statistical evidence and actual clinical practice and outcomes; it provides a collective knowledge base by providing data on the success or failure of treatments used in *actual* clinical practice.

The Institute Of Medicine's (IOM) working definition of CER is *“the generation and synthesis of evidence that compares the benefits and harms of alternative methods to prevent, diagnose, treat, and monitor a clinical condition or to improve the delivery of care. The purpose of CER is to assist consumers, clinicians, purchasers, and policy makers to make informed decisions that will improve health care at both the individual and population levels.”* <sup>9(pg.1)</sup>

CER includes but is not limited to:

- A direct comparison of at least 2 effective interventions.
- The study of patients in a typical clinical setting.
- Systematic reviews of existing literature on a given treatment.
- Review of a body of evidence.
- Identifies gaps in the data.
- Potentially brings about new research questions.
- Uses large established databases such as Electronic Health Records (EHR's) and HEDIS measures to compare relative information.
- Measures outcomes that are important to patients.
- Non-experimental studies including registries.
- Experimental studies, plus randomized clinical trials.

Concerns about health care quality, safety, and cost drive the need to measure, evaluate, and improve health care performance. Three key dimensions of evidence that make up the foundation of CER's are effectiveness, safety and cost-effectiveness.<sup>10</sup> The clinical data within

EHRs are structured so information can be aggregated with other systems such as Medicare to provide a rich source of longitudinal data for health services research. CER's give us a framework and methodology to ensure consistent results.

### 6. Medical Treatments or Services

When referring to “medical treatments or services to be evaluated by CER’s we mean “...health care interventions, protocols for treatment, care management and delivery, procedures, medical devices, diagnostic tools, pharmaceuticals (including drugs and biologicals), integrative health practices, and any other strategies or items being used in the treatment, management, and diagnosis of, or prevention of illness or injury in, individuals” as defined in PA 111, Subtitle D, Section 6301 of the ACA.<sup>11</sup>

### 7. Cost Effective

“Cost-effective” means more than just the lowest price. Cost effectiveness pertains not only to how expensive a treatment is but also its *value*. An intervention can be considered cost effective if “the benefits and harms relative to costs represent an economically efficient use of resources for patients with this condition.”<sup>6(pg.17)</sup> Additionally, CER does not imply a reduction in care; however it does result in an increase in the quality of care (possibly at less cost) for a particular patient. An efficient allocation of resources is extremely important especially during financially difficult times. When there is a need to provide basic medical services to increasingly larger populations it is critical that costs and benefits are weighed and resources are not wasted on ineffective or unproven treatments. CER’s provide value based on determining the best optimal treatment available.

## III. The Benefits and Limitations of Evidence-Based Policy

EBM is a policy approach that not only looks at existing treatments; it also balances access to promising new treatments while protecting patients. When a new drug or medical device is approved by the FDA there continues to be some uncertainty about its benefit, safety and cost-effectiveness.<sup>12</sup> Basing medical decisions on evidence is a method of resolving concerns raised by limited data from clinical trials, the risk of exposing patients to ineffective or even harmful treatments and the probability that non-coverage could exclude patients from even receiving a potentially beneficial therapy.<sup>12(pg.746)</sup><sup>13</sup> Additionally, low standards of evidence result in useless treatments never being exposed; patients could continue to receive them as a standard of practice for many years.<sup>7(pg.64)</sup> EBM provides a framework where we can develop the high standards of evidence providers need to determine if a treatment coverage is justified. Therefore, policies based in evidence are an important component of any strategy that seeks to ensure resources are allocated to the most effective medical care.

Low standards of evidence result in useless treatments never being exposed; patients could continue to receive them for many years. Garber<sup>7</sup>

It is important to recognize the limitations of, and the barriers to implementing evidence-based medicine. A shortage of coherent reliable

scientific data for analysis has in the past been a problem. This however, is now being addressed through the work of institutions such as the IOM (Institute of Medicine) and PCORI in their efforts to re-evaluate commonly prescribed treatments as we will discuss later in this paper. There are challenges in applying evidence to individual patients, barriers to the practice of high-quality medicine; such as slow adoption by clinicians to changes in standards, the limited time and resources of the practicing physicians, and the length of time it takes to gather scientific evidence before it can be used.<sup>14</sup> Even in the face of limitations, EBM is a process that validates and raises the standard of the quality of scientific data available, thereby raising the standard of care.

#### IV. EBM Current Practice and Trends

##### 1. MAHP's Use of Evidence-Based Guidelines

MAHP is committed to develop and implement clinical practice guidelines in order to achieve consistent delivery of *evidence-based* services and better health outcomes. The MAHP Medical Directors over time have developed guidelines based in evidence. EBM is a foundation of Michigan's managed care system and goes hand in hand with the National Committee for Quality Assurance (NCQA) and the Healthcare Effectiveness Data and Information Set (HEDIS) measures, the standards that regulate our industry. EBM is also the basis for the Michigan Quality Improvement Consortium (MQIC)<sup>2\*\*</sup>Practice Guidelines. Evidence-based medicine drives improved patient safety and quality of care.

##### Likelihood That Plan Will Cover A New Intervention Compared With A Standard Intervention<sup>15</sup>

	Equal effectiveness for equal cost (%)	Equal effectiveness for greater cost (%)	Less effectiveness for equal cost (%)	Less effectiveness for less cost (%)	Greater effectiveness for equal cost (%)	Greater effectiveness for greater cost (%)
Small plans	92	10	2	3	99	87
Large plans	96	21***	4	13***	99	98
All plans	94	16	3	8	99	93

**Source:** L.A. Bergthold et al... "Using Evidence and Cost in Managed Care Decision-Making" (Stanford, Calif.: Center for Health Policy/Center for Primary Care and Outcomes Research, Stanford University, 2002). available as a supplemental document online at [content.healthaffairs.org/cgi/content/full/hlthaff.w4.284v1/DC2](http://content.healthaffairs.org/cgi/content/full/hlthaff.w4.284v1/DC2). \*\*p<.05 \*\*\*p<.01

##### 2. Quality Measures and EBM

Measuring health care quality has in the past faced significant challenges. These challenges include agreement on standards to measure care, determination of valid and available sources of data to support measurement, and the tools that incorporate a robust and adaptable set of

<sup>2\*\*</sup>Refer to Appendix B & C, pages 14 & 15 for web links and definitions.

measurement criteria. An evidence-based approach provides a comprehensive assessment of evidence and effectiveness while drawing on formal methods for summarizing and integrating information, including meta-analysis\* and decision analysis\*\*.<sup>3</sup>

National and State programs targeting quality measure development utilizing evidence based policies have grown significantly over the past two decades. These organizations include the American Medical Association Physician Consortium for Performance Improvement (PCPI), CMS Physician Quality Improvement Initiative (PQI), the National Committee for Quality Assurance (NCQA), The U.S. Preventive Services Task Force (USPSTF), the Agency for Healthcare Research and Quality (AHRQ), the American Board of Medical Specialties (ABMS), and the Michigan Quality Improvement Consortium (MQIC). Many physician specialty organizations also maintain quality initiatives based on evidence.

Beyond measure development, measure endorsing organizations such as the National Quality Forum (NQF) play a significant role in setting the standards for quality measurement. Standards of care are available from many sources including peer-reviewed literature, guidelines from medical specialty organizations, and specifications available from the national quality standards organizations. In addition to a growing set of standards and measures, the information available to support measurement has improved. Administrative or transaction data, medical claims, pharmacy claims and laboratory results such as the data found in HEDIS (The Healthcare Effectiveness Data and Information Set) have increased in both availability and comprehensiveness.

In Michigan, Medicaid Managed Care Plans are compared by HEDIS measures, which are a set of measures based upon evidence for preventative and chronic disease states. Contracts are awarded to plans based on these objective quality and evidence-based measures. HEDIS is a tool used by more than 90 percent of Americas health plans to measure performance on important dimensions of care and service.<sup>16</sup>

### **National EBM Actions and Trends**

- ◆ Physicians began the Clinical Efficacy Assessment Project began to write literature reviews for specific topics (1980's)
- ◆ ARHQ Effective Health Care Program Established Centers to produce evidence reports and technology (1990's)
- ◆ CMS develops Coverage with Evidence Development protocol for Medicare (1990's)
- ◆ IOM Roundtable on Evidence-Based Medicine (2007)
- ◆ American Board of Medical Specialties inclusion of EBM in Maintenance of Certification
- ◆ ARRA stimulus package includes Comparative Effectiveness Research Funding (2009)
- ◆ Patient Centered Outcomes Research Institute (PCORI) created under ACA (2010)

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\*Meta-analysis combines the results of several studies that address a set of related research hypothesis.

\*\*Decision analysis is the discipline comprising the philosophy, theory, methodology, and professional practice necessary to address important decisions.

### 3. USPSTF, Preventive Care & EBM

The U. S. Preventive Services Task Force (USPSTF) is the leading independent panel of private-sector experts in prevention and primary care. The USPSTF conducts rigorous, impartial assessments of the scientific evidence for the effectiveness of a broad range of clinical preventive services, including screening, counseling, and preventive medications. Its recommendations are considered the "gold standard" for clinical preventive services. The USPSTF members come from backgrounds in family medicine, internal medicine, geriatrics, preventive medicine, pediatric and adolescent medicine obstetrics and gynecology, nursing, psychology, and behavioral medicine, public health and health policy. The USPSTF rates the quality of evidence of effectiveness by determining which studies have a strong design and are well executed. These scientific measures are rooted in the foundation of managed care. Convened and supported by the Agency for Healthcare Research and Quality (AHRQ) the USPSTF is charged with conducting *scientific evidence* reviews of a broad array of clinical preventive services, developing recommendations for the health care community, and providing ongoing administrative, research, technical, and dissemination support.<sup>17</sup> The USPSTF also makes recommendations about which *preventive services* should be incorporated routinely into primary medical care and for which populations.<sup>16</sup> USPSTF recommendations are utilized by primary care clinicians, policymakers, managed care organizations, public and private payers, quality improvement organizations, specialist physicians, and patients. MAHP member plans rely on USPSTF data and recommendations to ensure they are providing enrollees quality preventative care based on scientific evidence.

New insurance market rules under the 2010 ACA will require the following services; as defined by the Institute of Medicine and based on recommendations by the USPSTF, be covered by all private health plans without cost sharing by August of 2012:

- well-woman visits (OB/GYN)
- screening for gestational diabetes
- human papillomavirus (HPV) DNA testing for women 30 and older
- Sexually-transmitted infection counseling
- Human Immunodeficiency Virus (HIV) screening and counseling
- FDA-approved contraception methods and contraceptive counseling
- breastfeeding support, supplies, and counseling
- domestic violence screening and counseling

<http://www.uspreventiveservicestaskforce.org/recommendations.htm>

### 4. CMS/FDA\* Coverage Based on Evidence

Coverage with evidence development (CED) is a tool being utilized by CMS to determine which treatments Medicare should cover. CED policy brings benefits when coverage decisions are being determined including:

- Linking Medicare coverage with the requirement for prospective data collection.
- Bringing eligible patients to participate in research designed to produce evidence of safety and benefit.
- Applying evidence to technologies that are unproven, promising, and/or in high demand.
- Being used as part of Medicare Clinical Trials Policy.
- Utilizing decision-maker driven research.

\*CMS-Centers for Medicare and Medicaid Services FDA-Food and Drug Administration

Both CMS and the FDA review scientific evidence, and in the process review the same evidence to make purchasing and regulatory decisions. The FDA must determine that a product, drug or medical device is safe and effective as a condition of approval; CMS must determine that the product is reasonable and necessary as a condition of coverage under section 1862(a)(1)(A) of the Act.<sup>18</sup> CMS adopts FDA determinations of safety and effectiveness, CMS is also charged with evaluating whether or not the product is reasonable and necessary for the Medicare population under National Coverage Determinations (NCD's).

#### 5. EBM and PPACA

The Patient Protection and Affordable Care Act (PPACA) specifically requires the use of current evidence based measures in medical decision making. This includes EBM as a basis for doctors in determining treatments for patients as well as in determining the medical necessity of a treatment.

Congress established PCORI, the Patient Centered Outcomes Research Institute through the 2010 Patient Protection and Affordable Care Act. PCORI is charged with setting priorities, research agendas and contracting with government & nongovernmental research entities. PCORI is essentially grounded in the tenets of health outcomes research, or comparative effectiveness research-the foundation of EBM. The basic premise behind PCORI is to provide healthcare decision-makers with sound, valid data on the outcomes of commonly prescribed therapies in order to guide the selection of the most effective treatments. <sup>10(pg.728)</sup>

PCORI has begun systematically reviewing commonly prescribed therapies currently in use to determine if these therapies can be proven effective based on the preponderance of evidence. The evidence is generated from studies that compare drugs, medical devices, tests, surgeries and ways to deliver health care; this will assist those practicing EBM by expanding the evidence-based data resources available to physicians and health care providers.

#### **V. Conclusion: A Multifaceted Approach to EBM**

The Michigan Association of Health Plans (MAHP) adopted a policy that established an “industry” philosophy of care. This policy states that the health plans represent a philosophy of health care that emphasizes active partnerships between patients and their physicians. Plan members believe that comprehensive health care based in scientific evidence is best provided by networks of health care professionals who are willing to be held accountable for the quality of

their services and the satisfaction of their patients. The Michigan Association of Health Plans are committed to the highest standards of quality and professional ethics, and to the principle that patients come first.

MAHP defines the components of evidence-based medicine as:

- Use of current best evidence in making decisions about the care of individual patients
  - Evidence is known to be effective in improving health outcomes.
  - Ensures the accuracy and precision of diagnostic tests.
  - Establishes the safety and efficacy of therapeutic and rehabilitative courses of therapy.
  
- The integration of relevant clinical research and clinical trials
  - Scientific evidence consists principally of controlled clinical trials that directly or indirectly demonstrate the effect of the intervention on health outcomes.
  - When controlled clinical trials are not available, observational studies that show a causal relationship between the intervention and health outcomes are used.
  - New interventions for which clinical trials have not been conducted because of epidemiological reasons shall be evaluated on the basis of professional standards of care or expert opinion.
  - For new interventions, effectiveness is determined by scientific evidence.
  - For existing interventions, effectiveness is determined first by scientific evidence, then by professional standards, and then by expert opinion.
  
- Review of a body of evidence
  - Includes at least 3 peer reviewed studies showing efficacy.
  - Review of the evidence shows a causal relationship between the therapy and outcome.
  - Uses large clinical data bases such as HEDIS and Electronic Health Records for studies.
  - Use of explicit methods for analyzing evidence.
  - A direct comparison of at least 2 effective interventions.
  - The study of patients in a typical clinical setting.
  - Systematic reviews of existing literature on a given treatment.
  - Identifies gaps in the data.
  - Potentially brings about new research questions.
  - Measures outcomes that are important to patients.
  - Non-experimental studies including registries.
  - Experimental studies, plus randomized clinical trials.

MAHP believes that an evidence-based approach will improve the quality of care and reduce the variation and use of inappropriate treatments in medical practice. EBM's set of principles and methods are intended to ensure to the greatest extent possible medical decisions, policies and guidelines are based on and are consistent with good evidence of cost effectiveness, quality and safety. Evidence-based insurance policies that reflect these principles do so in an effort to promote effective medical care. EBM serves as a guide so that health care purchasers will have some assurance that the results provided by each health plan are standardized.

## **Appendix A**

### **Stanford Definition of Medically Necessary**

"Medically Necessary" or "Medical Necessity" shall mean health care services that a Physician, exercising prudent clinical judgment, would provide to a patient for the purpose of evaluating, diagnosing or treating an illness, injury, disease or its symptoms, and that are:

- a) in accordance with the generally accepted standards of medical practice;
- b) clinically appropriate, in terms of type, frequency, extent, site and duration, and considered effective for the patient's illness, injury or disease; and
- c) not primarily for the convenience of the patient or Physician, or other Physician, and not more costly than an alternative service or sequence of services at least as likely to produce equivalent therapeutic or diagnostic results as to the diagnosis or treatment of that patient's illness, injury or disease.

## **Appendix B**

### **MQIC**

The Michigan Quality Improvement Consortium establishes and implements a core set of clinical practice guidelines and performance measures with a focus on improvement for effecting positive health outcomes.

#### The Medical Directors' Committee

1. Develops common evidence-based clinical practice guidelines
2. Provides direction and final decisions for MQIC

#### Measurement Workgroup

1. Establishes common definitions of populations among all health plans
2. Establishes common measurement protocols consistent with MQIC guidelines
3. Reports community-based performance results for key measures related to MQIC clinical practice guidelines, providing data for benchmarking and improvement

#### Implementation Workgroup

1. Researches and provides tools and educational materials as supplemental resources for physicians and their staff that support implementation of the MQIC clinical practice guidelines
2. Coordinates health plan and physician activities that complement MQIC quality improvement efforts
3. Coordinates MQIC communications

#### Michigan Quality Improvement Consortium Guidelines: Why Measurement Specifications?

Detailed specifications are required to assure comparability of reported performance. By establishing standard ways to collect and report performance information, MQIC will be able to aggregate community results at baseline and participating organizations will have benchmarks to compare performance on a number of dimensions.

#### How were the measurement specifications developed?

The MQIC Measurement Workgroup, a team of quality improvement and data reporting experts from the participating MQIC organizations, developed the specifications in collaboration with the MQIC Medical Directors. Whenever possible, HEDIS™ specifications were used to build upon NCQA's commitment to quality in order to maximize the ability to compare performance with other organizations and regions, and to minimize the additional programming and reporting burden on MQIC health plans. In order to comply with the MQIC measurement specifications, participating organizations require the most current HEDIS™ Technical Specifications.

Source: MQIC Website: <http://www.mqic.org/measurement.htm>

## Appendix C

### National Standards and State Quality Measures Incorporating Evidence Based Measures

Measure Type	Description
ABMS	American Board of Medical Specialties. ABMS inclusion of EBM in its maintenance of certification. <a href="http://www.abms.org/">http://www.abms.org/</a>
AHRQ	Federally created Agency for Healthcare Research and Quality. <a href="http://www.ahrq.gov/">http://www.ahrq.gov/</a>
HEDIS	National standard HEDIS® (NS-H) measures are authored/owned by the NCQA. Healthcare Effectiveness Data and Information Set (HEDIS®) is a set of nationally recognized performance measures. <a href="http://www.ncqa.org/tabid/59/Default.aspx">http://www.ncqa.org/tabid/59/Default.aspx</a>
MQIC	Michigan Quality Improvement Consortium <a href="http://www.mqic.org/">http://www.mqic.org/</a>
NCQA	National Committee for Quality Assurance <a href="http://www.ncqa.org/">http://www.ncqa.org/</a>
USPSTF	U.S. Preventive Services Task Force <a href="http://www.uspreventiveservicestaskforce.org/recommendations.htm">http://www.uspreventiveservicestaskforce.org/recommendations.htm</a>

## Appendix D

### Web Links to References and Resources

The following are web links used in development of this MAHP White Paper. The links are arranged by topic to make specific resources easier to locate.

#### Michigan Quality and Web Resources

1. MQIC - <http://www.mqic.org/>
2. MAHP - <http://www.mahp.org/>

#### Federal Reform Web Resources

1. PPACA - <http://www.ncsl.org/documents/health/ppaca-consolidated.pdf>
2. PCORI - [http://www.pcori.org/images/PCORI\\_EstablishingLeg.pdf](http://www.pcori.org/images/PCORI_EstablishingLeg.pdf)
3. HHS Preventative Services in the ACA-  
[http://www.ofr.gov/OFRUpload/OFRData/2011-19684\\_PI.pdf](http://www.ofr.gov/OFRUpload/OFRData/2011-19684_PI.pdf)

#### National EBM and Quality Measures Web Resources

1. ABMS - <http://www.abms.org/>
2. AHRQ - <http://www.ahrq.gov/>
3. CEBM- <http://www.cebm.net/index.aspx?o=1914>
4. CMS - <https://www.cms.gov/home/regsguidance.asp>
5. HEDIS - <http://www.ncqa.org/tabid/59/Default.aspx>
6. IOM - <http://www.iom.edu/>
7. NCQA - <http://www.ncqa.org/>
8. NHLBI - <http://www.nhlbi.nih.gov/health/allhat/qckref.htm>
9. USTSPF- <http://www.uspreventiveservicestaskforce.org/intro.htm>

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