

REPORT 2 OF THE COUNCIL ON SCIENCE AND PUBLIC HEALTH (I-19)  
Real-World Data and Real-World Evidence in Medical Product Decision Making  
(Reference Committee K)

## EXECUTIVE SUMMARY

**Objective.** The Council on Science and Public Health initiated this report to inform physicians of the evolving use of real-world data (RWD) and real-world evidence (RWE) in medical product decision making, specifically how the U.S. Food and Drug Administration (FDA) is using RWD and RWE for the approval of new products, new indications for products, or new labeling on products that are used in patient care. This report will define and clarify the current working definition and types/sources of RWD and RWE, evaluate challenges and benefits in using RWD, provide examples of RWD platforms and use of RWE, and explore considerations for generating RWE that is fit for regulatory purposes.

**Methods.** English-language articles were selected from a search of the PubMed database through August 2018 using the search terms “real-world data” and “real-world evidence.” Due to the volume of results, the date range was limited to 2017 to present. Additional articles were identified from a review of the references cited in relevant, retrieved publications. Searches of websites of international and national government agencies and outcomes research organizations and associations were conducted to identify guidelines, position statements, and reports.

**Results.** Data is more widely collected, available, and accessible than in the past. Evidence and opportunities are mounting on ways to leverage new data sources such as RWD and RWE to support regulatory efforts and value-based payment arrangements for medical products, yet accessibility and privacy concerns remain. The FDA is actively engaged in understanding the potential of RWE to meet the established standards for adequate and well-controlled clinical investigations and pursing its integration into drug development and regulatory review, the support of new indications for an approved drug, and its ability to satisfy post-approval study requirements. Advocates note that the use of RWD and RWE is crucial for incorporating patient experiences, currently often a gap in knowledge, into decision-making by drug companies, insurers, providers, and regulators. If RWD and RWE are to be effectively leveraged for public health purposes, then shared learning and collaboration across clinicians, patients, health care systems, pharmaceutical companies, and regulators are necessary. An understanding of the limitations and barriers associated with the use of RWD must also be acknowledged and addressed.

**Conclusion.** With its increasing availability and recognized worth, RWE has the potential to support, improve, and potentially accelerate the delivery of safe and cost-effective medical products. A component of the AMA’s strategic work starting in 2018 and beyond is to provide the physician perspective across health care technology sectors by promoting improved usability of and ready access to data for use in medical decision making and respect for the patient-physician relationship. Although extensive existing policies support the ideas and aims of RWD collection and the development of RWE, no policies specifically address the practice. This report sets the stage for additional information to come on the topic of RWD and RWE and provides foundational policy related to RWD and RWE to build on for other applications.

## REPORT OF THE COUNCIL ON SCIENCE AND PUBLIC HEALTH

CSAPH Report 2-I-19

Subject: Real-World Data and Real-World Evidence in Medical Product Decision Making

Presented by: Michael M. Miller, MD, Chair

Referred to: Reference Committee K

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### 1 INTRODUCTION

2  
3 Physicians are trained to implement the 5 steps of evidence-based practice (EBP) and rely on  
4 appropriate evidence to guide the clinical care they provide to their patients. The evidence relied  
5 upon in EBP has typically been generated from traditional randomized controlled trials (RCTs).  
6 Today, real-world data (RWD) and real-world evidence (RWE) are increasingly being used in  
7 health care decision making to augment evidence from RCTs.

8  
9 The Council on Science and Public Health offers this overview of RWD and RWE to practicing  
10 physicians because it is important for all physicians to understand the genesis of data and  
11 derivation of evidence from sources other than traditional RCTs that is increasingly being used by  
12 the FDA in its approval of new products, new indications for products, or new labeling on products  
13 that are used in patient care. Although RWD and RWE have many applications in health care, this  
14 report remains narrow in scope and will focus only on the use of RWD and RWE that is fit for  
15 purpose to be used in medical product (that is, drug, biologic, and device) decision-making (Figure  
16 1), such as the FDA's consideration of a new drug indication, labeling revision, or safety revision.  
17 The use of RWD and RWE as it applies to other topics, including augmented intelligence (AI), will  
18 be addressed at a later time.

19  
20 RWD are the data relating to patient health status and/or the delivery of health care routinely  
21 collected from a variety of sources. RWE is the clinical evidence regarding the usage and potential  
22 benefits or risks of a medical product derived from analysis of RWD.<sup>1-3</sup> RWD and RWE are  
23 playing an increasing role in health care decisions. Additionally, the use of RWD and RWE to  
24 answer scientific questions and guide more effective and cost-efficient medical product decision  
25 making is an active area of engagement for regulatory agencies. Stakeholder groups are actively  
26 working on ways to improve the development and use of RWD and RWE across a range of clinical  
27 and regulatory activities.

28  
29 The 21st Century Cures Act (Cures Act), signed into law in December 2016, is designed to  
30 accelerate medical product development and bring new innovations and advances faster and more  
31 efficiently to patients.<sup>4</sup> Among the provisions in the Cures Act is an added section to the Federal  
32 Food, Drug, and Cosmetic Act (FD&C Act) related to RWE which requires that the U.S. Food and  
33 Drug Administration (FDA) increase its use of evidence from clinical practice settings. Pursuant to  
34 this provision and the sixth Prescription Drug User Fee Act (PDUFA VI),<sup>5</sup> FDA created a  
35 framework for evaluating the potential use of RWE to support the approval of a new indication for  
36 a drug or biological product already approved or to support or satisfy drug post-approval study  
37 requirements.<sup>1</sup> The FDA under the fourth Medical Device User Fee Act (MDUFA IV)<sup>6</sup> is required

1 to, among other things, evaluate the published guidance in 2017, *Use of Real-World Evidence to*  
2 *Support Regulatory Decision-Making for Medical Devices.*<sup>7</sup>  
3

4 In addition to the FDA's activities related to RWD, the National Institutes of Health (NIH) has  
5 developed its first Strategic Plan for Data Science providing a roadmap for modernizing the NIH-  
6 funded biomedical data science ecosystem;<sup>8</sup> The National Academies of Sciences, Engineering,  
7 and Medicine (NASEM) remain engaged in RWD conversations with diverse stakeholders;<sup>9-12</sup> part  
8 of the Patient Centered Outcomes Research institute (PCORI) mandate is to improve the quality  
9 and relevance of evidence to advance health care;<sup>13</sup> and several thought leaders, including former  
10 FDA Commissioners, are commenting on the use of RWD for the advancement of health care.<sup>14-17</sup>  
11

12 Many different types and sources of RWD exist, there is increasing availability of RWD, and new  
13 potential data sources are emerging. Both challenges and benefits to the use of these data exist. The  
14 Council on Science and Public Health initiated this report to inform physicians of the evolving use  
15 of RWD and RWE in medical product decision making. This report will define and clarify the  
16 current working definition and types/sources of RWD and RWE, evaluate challenges and benefits  
17 in using RWD, provide examples of RWD platforms and use of RWE, and explore considerations  
18 for generating RWE that is fit for regulatory purposes.  
19

## 20 METHODS

21 English-language articles were selected from a search of the PubMed database through August  
22 2018 using the search terms “real-world data” and “real-world evidence.” Due to the volume of  
23 results, the date range was limited to 2017 to present. Additional articles were identified from a  
24 review of the references cited in relevant, retrieved publications. Searches of websites of  
25 international and national government agencies and outcomes research organizations and  
26 associations were conducted to identify guidelines, position statements, and reports.  
27

## 28 OVERVIEW OF RWD AND RWE

29 RWD are collected from a variety of sources with varied quality, reliability, and applicability  
30 including electronic health records (EHRs) from hospitals, physician offices, and clinics (diagnoses  
31 and medical history); medical and billing claims; product and disease registries; administrative  
32 data; pharmacies (including dose, dose regimen, and route of administration of medications);  
33 laboratory, radiology, and diagnostic test results; cost studies; prospective observational data; vital  
34 records databases; primary and secondary care data; and patient-generated data, including from in-  
35 home-use settings, wearables, biosensors, remote monitoring devices, mobile devices and  
36 applications, consumer surveys, and social media (Figure 2).<sup>1,9,17</sup> Post-marketing data is the type of  
37 RWD currently used most often. RWD are typically more proximate to the patient and the patient  
38 experience; thus, they include primary source data, but they have a high potential for  
39 unstructured/inconsistent data collection and for missing data elements as compared to data  
40 collected for research or during clinical trials.<sup>18</sup>  
41

42 The FDA is advancing a total product life cycle (TPLC) approach, a holistic approach that takes  
43 into account all of the steps and processes in the evolution of a medical product from conception to  
44 obsolescence, integrating information and knowledge across pre-market and post-market activities,  
45 to increase information-sharing and enhance decision-making. RWD and RWE are not a  
46 replacement for clinical trial data, but instead support the TPLC approach to medical product  
47 approval and surveillance; they will augment existing mechanisms which are known to have gaps,  
48 delays, and deficiencies that are inherent in any system that depends on active reporting by users.  
49

1 RWE has the potential to inform therapeutic development, outcomes research, patient care, health  
2 care systems research, quality improvement, safety surveillance, and well-controlled effectiveness  
3 studies. RWE can provide answers to questions relevant to broad populations of patients that may  
4 not be possible or intended in the course of a traditional clinical trial and may reduce the number of  
5 individuals exposed to a faulty medical product and shorten the period of time before valid  
6 performance issues are identified and acted upon. Use of RWD and RWE may also save time and  
7 money throughout the TPLC. Additionally, RWE can be used to complement traditional clinical  
8 trials, generating more generalizable knowledge from larger, more inclusive populations of  
9 patients, providers, and health care delivery systems or settings that reflect actual use in practice.<sup>16</sup>

10  
11 However, it is important to note that the RWE generated from RWD has limitations and challenges  
12 including confidentiality and proprietary concerns, the cost and work required to convert data for  
13 use in analyses, and sharing and collaboration considerations.<sup>19</sup>

14  
15 *FDA RWE Program Framework*

16  
17 Former FDA Commissioner Scott Gottlieb, MD, recently noted that RWD and RWE are a top  
18 strategic priority for the FDA and the Agency is “committed to realizing the full potential of these  
19 tools in advancing the development of novel therapeutic products and strengthening our regulatory  
20 oversight of medical products across the life-cycle continuum.”<sup>20</sup> The recently published  
21 *Framework for FDA’s RWE Program* (framework), issued by the FDA’s Center for Drug  
22 Evaluation and Research (CDER) and Center for Biologics Evaluation and Research (CBER) is  
23 intended to develop a path for ensuring that RWE solutions are an integral part of the drug  
24 development and regulatory life cycle.<sup>20</sup>

25  
26 The CDER/CBER framework notes that the FDA’s work will be multifaceted and involve  
27 demonstration projects, stakeholder engagement, internal processes to promote shared learning and  
28 consistency in applying the framework, and the development of guidance documents to assist those  
29 using RWD to develop RWE to support FDA regulatory decisions.<sup>1</sup> The framework includes  
30 consideration of whether RWD are fit for use; whether the trial or study design used to generate  
31 RWE can provide adequate scientific evidence to answer or help answer the regulatory question;  
32 and whether the study conduct meets FDA regulatory requirements.<sup>1</sup>

33  
34 FDA currently uses RWE in safety surveillance and development of drugs for rare diseases, but  
35 there are other potential applications.<sup>18</sup> The FDA program will focus on exploring the potential of  
36 RWD/RWE to support regulatory decisions about product effectiveness. Specifically, FDA’s RWE  
37 Program will evaluate the potential use of RWE to support revisions to drug labeling such as  
38 changes in doses, dosing regimen or route of administration, and population or adding comparative  
39 effectiveness or safety information.<sup>1</sup> The framework also includes exploring the use of  
40 observational designs to generate RWE.

41  
42 The FDA’s Center on Devices and Radiological Health (CDRH) recently published guidance on  
43 the potential use of RWE for supporting initial decisions to approve or clear devices for use and  
44 includes the use a TPLC approach in their current strategic priorities.<sup>21</sup> The guidance also addresses  
45 the use of RWE for post-marketing assurance of medical device safety and performance.<sup>7</sup>  
46 Investigators have noted the high value of post-market evidence in evaluating the performance of  
47 modern medical devices outside of the context of a controlled clinical trial and have also noted that  
48 RWE can supplement or replace currently required post-approval studies, saving money and time.<sup>22</sup>

49  
50 CDER and CBER routinely use RWE to support post-marketing safety evaluation and, to a limited  
51 extent, to evaluate the effectiveness of medical products in certain rare diseases. CDER’s and

1 CBER's experience with Sentinel, a program described in more detail in Appendix A, is informing  
2 policy, guidance, frameworks, methods and platforms going forward. Sentinel is leading the way  
3 for CDRH to use RWE, from the National Evaluation System for Health Technology (NEST), in its  
4 product evaluations in pre- and post-market decisions; NEST is another program described in  
5 Appendix A.

6

7 *Fit for Regulatory Purpose*

8

9 The FDA states that any RWD/RWE used for regulatory purposes, including drug development  
10 and regulatory review, must be fit for purpose – it must be high-quality data that can support  
11 regulatory decision making and improve public health. Fit for purpose RWD requires data  
12 relevancy and data quality. The process of producing a fit for purpose RWD set begins with  
13 selection of one or more data sources, then cleaning, transforming, and linking data. Obtaining  
14 curated, high quality, unbiased data is a rate limiting step to obtaining RWE, which is labor  
15 intensive and costly.<sup>3</sup>

16

17 The Duke-Margolis Center for Health Policy and FDA published a framework in which they  
18 propose that developing RWE fit for regulatory purposes should be guided by the interplay of the  
19 regulatory question a sponsor seeks to address, the clinical context within which RWE is being  
20 generated, the availability of RWD that is both relevant and of acceptable quality; and the  
21 application of trusted methods for turning RWD into actionable evidence.<sup>23</sup>

22

23 When RWE is identified and intended to be used in regulatory contexts, for example in the FDA's  
24 consideration of a new drug indication, labeling revision, safety revision, or risk-benefit profile,  
25 there are unique challenges that require careful consideration to characterize it as robust and  
26 representative of the population of interest.<sup>3</sup> Not all research questions may be suitable for  
27 answering with RWE, traditional inferential statistics may be unable to identify clear treatment  
28 effects given variations in treatment effect definitions, clinical practice, and partial adherence to  
29 treatment, and it remains unclear how regulatory standards and compliance requirements designed  
30 for traditional clinical trials apply to RWE.<sup>23</sup> Additional work needs to be done to clarify the types  
31 of RWD and RWE that are robust enough to provide information to support regulatory guidance  
32 and decisions.<sup>24</sup>

33

34 *RWE vs. Traditional Clinical Trials*

35

36 RCTs have traditionally served as the gold standard for generating evidence about medical  
37 products. RCTs are optimized to control variability and maximize data quality to produce data  
38 essential for regulatory approval by answering regulators' questions related to efficacy and  
39 safety.<sup>16,25</sup> RCTs are often conducted with a narrowly defined group of patients and many  
40 investigators express concern that RCTs may not reflect the broad patient populations that will be  
41 exposed to an approved treatment in the real-world,<sup>23</sup> and that specific therapeutic interventions  
42 may perform differently in different patient cohorts based on age, gender, race, ethnicity, disease  
43 severity, comorbidities, or polypharmacy.<sup>17,25</sup> RCTs are also complex, expensive, time consuming,  
44 and cannot answer all questions about a product or intervention.<sup>10</sup> Some estimates state that clinical  
45 trials can take as long as seven years and cost more than \$2 billion.<sup>17</sup> The FDA also recognizes that  
46 overly complex RCTs and unnecessary data collection can deter patient enrollment and discourage  
47 the development of second and third-to-market innovations and reducing competition and lowering  
48 prices.

49

50 According to the FDA framework, evidence from traditional clinical trials will not be considered  
51 RWE, but various hybrid or pragmatic trial designs and observational studies could generate

1 RWE.<sup>1,14</sup> Traditional RCTs, often referred to as explanatory trials generally measure efficacy – the  
2 benefit of a treatment under ideal conditions. Pragmatic trials measure effectiveness – the benefit of  
3 treatment in clinical practice. Pragmatic trials can test the same intervention as a traditional RCT,  
4 but they are conducted in real-world clinical practice settings, with typical patients and by qualified  
5 clinicians who may not have a research background, as detailed in the Salford Lung Study below.<sup>26</sup>  
6 Augmenting traditional RCTs with data from a broader, more diverse group of patients in different  
7 practice settings can increase the generalizability of trials, answer questions about subpopulations  
8 for treatments, or demonstrate proof of value to payers and patients, as has been done in some trials  
9 conducted within clinical registry populations.<sup>2,11,17</sup> Many opportunities exist for leveraging RWE  
10 during the life cycle of product development (Figure 3).

11  
12 Benefits of using RWD/RWE to support RCTs includes more efficient and targeted recruitment of  
13 patients for RCTs; expediting hypotheses generation to inform RCT design; identification of  
14 subpopulations with higher risk-benefit ratios; supporting the identification of drug development  
15 tools, such as biomarkers; trial feasibility assessment; supporting geographically distributed  
16 research cohorts; and improving the efficiency of studies for drugs approved under the FDA's  
17 expedited programs.<sup>1,17</sup>

18  
19 **PRIVACY, SECURITY, AND ACCESSABILITY**

20  
21 While many opportunities to leverage RWD and RWE to support regulatory efforts related to  
22 medical products exist, there are also barriers to their use.<sup>17</sup> Among the biggest barriers to the use  
23 of RWD and RWE are data accessibility, privacy, and security concerns. While increasing the use  
24 of patient data is a priority for FDA and national thought leaders, also increasing is public, and  
25 AMA, concern about the secondary use of personal information. Noteworthy is a study evaluating  
26 RCT participant concerns about the risks of data sharing which found that most participants most  
27 were willing to share their data for a wide range of uses provided that adequate security safeguards  
28 were in place.<sup>27</sup>

29  
30 The Health Insurance Portability and Accountability Act of 1996 (HIPAA), safeguards the  
31 collection, storage, and disclosure of protected health information for covered entities, which  
32 includes health care entities and practitioners that electronically transmit health information, health  
33 plans, and clearinghouses.<sup>28</sup> HIPAA rules do not apply to deidentified health data, even as methods  
34 to reidentify individuals from other sources proliferate.<sup>29</sup> Privacy conversations related to RWD  
35 and RWE focus on ways to decrease risk of reidentifying deidentified data, data minimization,  
36 identifiers to remove from data sets, and expanding penalties and civil remedies available for data  
37 breaches and misuse, including reidentification attempts.<sup>30</sup>

38  
39 Access to RWD requires aggregation of the health data, which are usually stored in multiple silos  
40 and can suffer from incompatibility and data quality issues. Increasing the use of these data is  
41 challenging for several reasons including confidentiality and proprietary issues, costs and labor  
42 associated with raw data transformation, and incentives for data holders to share information that  
43 outweigh the disadvantages (for example, unauthorized use and competition).<sup>19</sup>

44  
45 Data enclaves, secure networks through which confidential data can be stored and disseminated,  
46 are becoming popular.<sup>19,31</sup> Data enclaves address two major barriers related to data sharing: data  
47 owners can maintain operational control of their data (granting permissions for analysis requests)  
48 and they eliminate the need to construct new, secure systems for each query or study.<sup>19</sup> Multiple  
49 enclaves from different data owners can be linked to create data networks in which the systems  
50 format their data identically and execute identical analytic programs on the data. Typically, data

1       enclaves in a network share aggregate results. Some data enclave networks, such as the FDA's  
2       Sentinel System, include the records of more than 100 million individuals.<sup>19</sup>

3  
4       Networks can be centralized (for example, registries), decentralized (for example PCORnet and  
5       NEST), or distributed (for example, Sentinel). In a centralized system, all users are connected to a  
6       central network owner that stores data for others to access. Decentralized systems do not have one  
7       central owner, and instead use multiple central owners, each of which usually stores a copy of the  
8       resources users can access. In these models, data owners retain patient-level data behind the  
9       firewall of their institution, and issues related to the use and reuse of data resolved by the  
10      participants in the network.<sup>32</sup> Distributed systems are similar to decentralized and do not have a  
11      single, central owner; users have equal access to data and share ownership of the data.

12  
13      Additionally, patients are taking more control of their own data and creating shareable health  
14      records by authorizing data sharing from mobile applications, physician visits, pharmacy records,  
15      and more. Patients can share their aggregated data upon request using an application such as  
16      Apple's new Health app. Using the Health app, patients and providers can share data and interact  
17      on Apple devices.<sup>33</sup> Over 350 health care institutions currently support this type of shareable health  
18      information.<sup>34</sup> However, substantial concerns remain about the potential for data misuse by third  
19      parties, especially when HIPAA does not apply.

20

## 21      DATA NETWORKS

22

23      Many stakeholders, including federal agencies, health systems, payers, and clinicians have made  
24      significant progress through investments in the curation, linkage, and analysis of electronic health-  
25      related data generated during the course of patient care. Much of these data are housed in clinical  
26      data warehouses or enclaves, organized into common data models, refreshed periodically, and  
27      subjected to quality assurance checks. Many of the networks are based on voluntary, nonexclusive  
28      collaborations in which institutions elect to participate in multi-center studies.

29

30      Several independent networks established and active for post-market medical product surveillance  
31      are now being leveraged to contribute to public-private collaboration for improved population-  
32      based evidence generation related to medical products on a much larger scale. Please see Appendix  
33      A for more details about several data networks.

34

## 35      RWE USE CASES

36

37      Although currently the most common use of RWE is retrospective analysis of existing data,  
38      increasingly, clinical trials are being conducted in real-world settings to improve the  
39      generalizability of results and to reduce inefficiencies related to establishing separate research  
40      infrastructures. These pragmatic clinical trials are conducted using existing clinical infrastructure to  
41      prospectively test interventions in every-day situations. Please see Appendix B for examples of  
42      RWE use cases.

43

## 44      CURRENT AMA POLICY

45

46      While no AMA policy currently addresses RWD or RWE specifically, AMA has extensive policy  
47      on related topics that were developed prior to the propagation of RWD and RWE. The relevant  
48      topics include data, registries, post-market surveillance, effectiveness evaluation, and clinical  
49      trials/drug approval. Because of the volume of related AMA policies referenced, please see  
50      Appendix C for the full text of policies.

1 Globally, AMA Policy H-100.992, “FDA,” supports the principles that an FDA decision to approve  
2 a new drug, to withdraw the approval of a drug, or to change the indications for use of a drug must  
3 be based on sound scientific and medical evidence derived from controlled trials and/or post-  
4 market incident reports.

5

6 *Data-related Policy*

7

8 AMA Task Force to Address the Release of Physician Information. In 2007, AMA convened a task  
9 force to address the release of physician information. This task force was formed in response to  
10 physician profiling programs and “efficiency ratings.” The task force assisted the AMA in the  
11 creation of Principles for the Public Release and Accurate Use of Physician Data, which provides a  
12 framework for the AMA to address the appropriate release and use of physical data in evaluating  
13 physician performance (“physician-specific data”). The task force also thought it was important for  
14 the AMA to specifically craft policy regarding the release and use of physician data by the federal  
15 government for all purposes (“physician data”). Board of Trustees (BOT) Report 18-A-09 details  
16 this task force and resulting recommendations that address safeguards for the release of physician  
17 data and physician profiles. The resulting AMA policy is guided by seven main principles: patient  
18 privacy safeguards; data accuracy and security safeguards; transparency requirements; review and  
19 appeal requirements; physician profiling requirements; quality measurement requirements; and  
20 patient satisfaction measurement requirements (Policies H-406.990, “Work of the Task Force on  
21 the Release of Physician Data,” H-406.989, “Work of the Task Force on the Release of Physician  
22 Data,” H-406.991, “Work of the Task Force on the Release of Physician Data,” and H-406.996,  
23 “Use and Release of Physician-Specific Health Care Data”).<sup>57</sup>

24

25 Council on Legislation Workgroup on Health Care Data Transparency. In 2014, AMA’s Council  
26 on Legislation (COL) established a workgroup to focus on health care data transparency. The intent  
27 of the workgroup was to develop guiding principles on the data and transparency efforts that should  
28 be pursued in order to improve care quality, reduce costs, prioritize the right set of regulatory  
29 reforms, and highlight innovative uses of health care data that benefit physicians. BOT Report 6-A-  
30 15 provides background on the health care data transparency and details the work of the COL.<sup>58</sup>

31

32 The workgroup noted that our AMA has extensive policy on physician data transparency; however,  
33 it was created at a time when most of this information was not widely available and accordingly,  
34 focused on safeguards against releasing this information. The workgroup recognized the work of  
35 the 2007 task force, built on their policy recommendations (seven outlined principles) to reflect the  
36 new opportunities and potential uses of this information, and identified three components of a data  
37 transparency framework: transparency objectives and goals; data transparency resources; and  
38 challenges to transparency (Policy H-406.987, “Medical Information and Its Uses”).

39

40 The framework principles are intended to guide and develop AMA advocacy and policy as more  
41 data are sought by stakeholders and new uses of this information emerge. The framework  
42 principles recognize the new data environment and the need for physicians to engage in this area.  
43 Noteworthy statements in this policy include facilitation of more proactive use of health care data;  
44 support of the removal of barriers to accessing additional information from other payers and care  
45 settings, focusing on data that is valid, reliable, and complete; supporting definitions of quality  
46 based on evidence-based guidelines; promotion of efforts by clinical data registries, regional  
47 collaborations, Qualified Entities, and specialty societies to develop reliable and valid performance  
48 measures, increase data utility, and reduce barriers that currently limit access to and use of the  
49 health care data; and support of improvements in EHRs and other technology to capture and access  
50 data in uniform formats.

1     Data Ownership. Informational BOT Report 21-A-18 provided an overview of the current laws and  
2     regulations at the state and federal levels that address ownership, access, and use of patient data.<sup>59</sup>  
3     The report notes the importance of patients having appropriate access to their data and physicians  
4     having the tools and controls they need to be good stewards of their patients' information while at  
5     the same time having the ability to share information to seamlessly coordinate the best care.  
6     Additionally, Policy D-315.984, "Ownership of Claims Data," notes that our AMA will continue to  
7     monitor federal and state activities impacting the exchange of physician-generated health  
8     information, including claims data.  
9

10    Additional Data-related Policy. Policy H-406.999, "Goal of Health Care Data Collection," notes  
11    the AMA's support for collection of health care data that can be used for education of both  
12    consumers and providers and made available to physicians and medical societies. AMA policy  
13    supports compliance with HIPAA Privacy and Security Rules and data accessibility to authorized  
14    users for purposes of treatment, public health, patient safety, quality improvement, medical liability  
15    defense, and research (Policy H-315.973, "Guiding Principles for the Collection, Use and  
16    Warehousing of Electronic Medical Records and Claims Data").  
17

18    *Data Registries Policy*  
19

20    AMA policy encourages multi-stakeholder efforts to develop and fund clinical data registries for  
21    the purpose of facilitating quality improvements and research that result in better health care,  
22    improved population health, and lower costs. Additionally, policy encourages physicians and  
23    physician groups to participate in efforts to advance the development and use of clinical data  
24    registries and provides guidelines to help maximize opportunities for clinical data registries to  
25    enhance the quality of care provided to patients. AMA policy also notes that clinical registry data  
26    may be used to meet third-party quality reporting requirements with suggested guidelines and  
27    encourages a national clinical trial registry to promote subject safety, research quality, and to  
28    document previous trial participation (Policies H-450.933, "Clinical Data Registries" and D-  
29    460.972, "Creation of a National Registry for Healthy Subjects in Phase I Clinical Trials").  
30

31    *Post-Market Surveillance/Adverse Event Reporting Policy*  
32

33    Several policies note our AMA's support of post-market surveillance and adverse event reporting,  
34    including Ethical Opinion 8.8, "Required Reporting of Adverse Events," which notes physicians'  
35    responsibility to report suspected adverse events resulting from the use of a drug or medical device  
36    and Policy H-120.958, "Supporting Safe Medical Products as a Priority Public Health Initiative,"  
37    which encourages proper reporting of adverse events. Additional policies comment on the utility of  
38    manufacturer-conducted post-market surveillance to document long-term safety, effectiveness, and  
39    acceptance, encourages manufacturers to better study medication effects in pre- and post-marketing  
40    clinical trials, encourages mechanisms for data collection, monitoring, and analysis of medication-  
41    related problems by age group, and encourages the sharing of post-market surveillance information  
42    with the FDA (Policies H-75.990, "Development and Approval of New Contraceptives," and H-  
43    100.968, "Improving the Quality of Geriatric Pharmacotherapy").  
44

45    Policy D-100.982, "Enhanced Physician Access to Food and Drug Administration Data," urges the  
46    FDA to apply new tools to gather data after drugs are approved for marketing, including a broader  
47    use of targeted post-approval studies, institution of active and sentinel event surveillance, and data  
48    mining of available drug utilization databases.

1     *Effectiveness Evaluation Policy*

2  
3     Policy H-110.986, “Incorporating Value into Pharmaceutical Pricing,” supports value-based  
4     pricing of pharmaceuticals that is evidence-based and the result of valid and reliable inputs and  
5     data that incorporate rigorous scientific methods, including clinical trials, clinical data registries,  
6     comparative effectiveness research, and robust outcome measures that capture short- and long-term  
7     clinical outcomes.

8  
9     *Clinical Trials/Drug Approval Policy*

10  
11    AMA has long-standing policy supporting clinical trials. Our AMA supports the development of  
12    transparent, collaboratively constructed clinical pathways that are implemented in ways that  
13    promote administrative efficiencies for both providers and payers; promote access to evidence-  
14    based care for patients; recognize medical variability among patients and individual patient  
15    autonomy; promote access to clinical trials; and are continuously updated to reflect the rapid  
16    development of new scientific knowledge (Policy H-410.948, “Clinical Pathways”). Additional  
17    policies include urging access to original source safety data from industry-sponsored trials upon  
18    request; support for ample federal funding of medical research, including basic biomedical  
19    research, translational research, clinical research and clinical trials, health services research,  
20    outcomes research, and prevention research; and support for accounting for the possible role of sex  
21    as a biological variable in vertebrate animal and human studies (Policies D-460.970, “Access to  
22    Clinical Trial Data,” H-460.926, “Funding of Biomedical, Translational, and Clinical Research,”  
23    and H-525.991, “Inclusion of Women in Clinical Trials”).

24  
25    **SUMMARY**

26  
27    Data are more widely collected, available, and accessible than in the past. Evidence and  
28    opportunities are mounting on ways to leverage new data sources as RWD and RWE to support  
29    regulatory efforts and value-based payment arrangements for medical products, yet privacy  
30    accessibility and privacy concerns remain. The FDA is actively engaged in understanding the  
31    potential of RWE to meet the established standards for adequate and well-controlled clinical  
32    investigations and pursing its integration into drug development and regulatory review, the support  
33    of new indications for an approved drug, and its ability to satisfy post-approval study requirements.  
34    Advocates note that the use of RWD and RWE is crucial for incorporating patient experiences,  
35    currently often a gap in knowledge, into decision-making by drug companies, insurers, providers,  
36    and regulators.

37  
38    In a 2017 Real-World Evidence Benchmark Survey, Deloitte noted that many health care  
39    stakeholders, including life sciences companies and others (payers, providers, regulators, and  
40    patients) are increasingly making high-impact decisions and attempting to demonstrate value using  
41    RWD.<sup>60</sup> The results of this survey illustrate that with its increasing availability and recognized  
42    worth, RWE has the potential to support, improve, and potentially accelerate the delivery of safe  
43    and cost-effective medical products.

44  
45    If RWD and RWE are to be effectively leveraged for public health purposes, then shared learning  
46    and collaboration across clinicians, patients, health care systems, pharmaceutical companies, and  
47    regulators are necessary. An understanding of the limitations and barriers associated with the use of  
48    RWD must also be acknowledged and addressed. Recently, a group of former FDA commissioners  
49    offered recommendations and suggested requirements for advancing the generation and use of  
50    RWE to evaluate effectiveness and safety of drugs, biologics, and devices including adequate  
51    funding, regulatory clarity, access to data, improved data reliability and relevance, assured privacy

1 and confidentiality, innovative, new models of drug development, and cooperation and  
2 collaboration.<sup>17</sup>

3  
4 A component of the AMA's strategic work starting in 2018 and beyond is to provide the physician  
5 perspective across health care technology sectors by promoting improved usability of and ready  
6 access to data for use in medical decision making and respect for the patient-physician relationship.  
7 Although extensive existing policies support the ideas and aims of RWD collection and the  
8 development of RWE, no policies specifically address the practice. As a leader in American  
9 medicine, our AMA has a unique opportunity to be a part of the evolving conversation related to  
10 the use of RWD and RWE for regulatory purposes.

11  
12 **RECOMMENDATIONS**  
13

14 The Council on Science and Public Health recommends that the following be adopted and the  
15 remainder of the report be filed:

- 16  
17 1. Our AMA supports the generation and use of real-world data (RWD) and real-world evidence  
18 (RWE) fit for regulatory purpose to: (a) evaluate effectiveness and safety of medical products,  
19 while assuring patient privacy and confidentiality; (b) improve regulatory decision-making; (c)  
20 decrease medical product costs; (d) increase research efficiency; (e) advance innovative and  
21 new models of drug development; and (f) improve clinical care and patient outcomes. (New  
22 HOD Policy)
- 23  
24 2. Our AMA supports the aim of the U.S. Food and Drug Administration (FDA) to expand and  
25 clarify the use RWD and RWE in regulatory decision-making including in:  
26 a. understanding the potential of RWE to meet the established standards for adequate and  
27 well-controlled clinical investigations;  
28 b. pursuing the integration of RWE into medical product development and regulatory review;  
29 and  
30 c. utilizing RWE to support new indications for approved medical products, and its ability to  
31 satisfy post-approval study requirements. (New HOD Policy)
- 32  
33 3. Our AMA supports that there be adequate funding of data infrastructure to allow for  
34 transparent data management capabilities, improved access to data by clinicians, especially  
35 physicians, as well as researchers and other stakeholders, and improved reliability and  
36 relevance of data. (New HOD Policy)
- 37  
38 4. Our AMA supports cooperation and collaboration of stakeholders to facilitate the collection  
39 and use of RWD and RWE that is deemed fit for regulatory purpose. (New HOD Policy)
- 40  
41 5. Our AMA will evaluate and develop a response to the educational needs of physicians seeking  
42 to understand the use of fit for purpose RWD and RWE in clinical practice. (New HOD Policy)
- 43  
44 6. That Policy H-100.992, "FDA," be amended by addition to read as follows:

45  
46 H-100.992, "FDA"

- 47 (1) Our AMA reaffirms its support for the principles that: (a) an FDA decision to approve a  
48 new drug, to withdraw a drug's approval, or to change the indications for use of a drug  
49 must be based on sound scientific and medical evidence derived from controlled trials,  
50 real-world data (RWD) fit for regulatory purpose, and/or postmarket incident reports as  
51 provided by statute; (b) this evidence should be evaluated by the FDA, in consultation with

- 1       its Advisory Committees and expert extramural advisory bodies; and (c) any risk/benefit  
2       analysis or relative safety or efficacy judgments should not be grounds for limiting access  
3       to or indications for use of a drug unless the weight of the evidence from clinical trials,  
4       RWD fit for regulatory purpose, and postmarket reports shows that the drug is unsafe  
5       and/or ineffective for its labeled indications.
- 6       (2) The AMA believes that social and economic concerns and disputes per se should not be  
7       permitted to play a significant part in the FDA's decision-making process in the course of  
8       FDA devising either general or product specific drug regulation.
- 9       (3) It is the position of our AMA that the Food and Drug Administration should not permit  
10       political considerations or conflicts of interest to overrule scientific evidence in making  
11       policy decisions; and our AMA urges the current administration and all future  
12       administrations to consider our best and brightest scientists for positions on advisory  
13       committees and councils regardless of their political affiliation and voting history. (Modify  
14       Current HOD Policy)
- 15
- 16       7. That Policy D-100.982, "Enhanced Physician Access to Food and Drug Administration Data,"  
17       urging the FDA to apply new tools to gather data after drugs are approved for marketing,  
18       including a broader use of targeted post-approval studies, institution of active and sentinel  
19       event surveillance, and data mining of available drug utilization databases, be reaffirmed.  
20       (Reaffirm Current HOD Policy)
- 21
- 22       8. That Policy H-110.986, "Incorporating Value into Pharmaceutical Pricing" supporting value-  
23       based pricing of pharmaceuticals that is evidence-based and the result of valid and reliable  
24       inputs and data that incorporate rigorous scientific methods, including clinical trials, clinical  
25       data registries, comparative effectiveness research, and robust outcome measures that capture  
26       short- and long-term clinical outcomes, be reaffirmed. (Reaffirm Current HOD Policy)
- 27
- 28       9. That Policy H-406.987, "Medical Information and Its Uses," identifying three components of a  
29       data transparency framework, be reaffirmed. (Reaffirm Current HOD Policy)
- 30
- 31       10. That Policy H-410.948, "Clinical Pathways," supporting the development of transparent,  
32       collaboratively constructed clinical pathways that are implemented in ways that promote  
33       administrative efficiencies for both providers and payers; promote access to evidence-based  
34       care for patients; recognize medical variability among patients and individual patient  
35       autonomy; promote access to clinical trials; and are continuously updated to reflect the rapid  
36       development of new scientific knowledge, be reaffirmed. (Reaffirm Current HOD Policy)
- 37
- 38       11. That Policy H-450.933, "Clinical Data Registries," encouraging multi-stakeholder efforts to  
39       develop and fund clinical data registries to facilitate quality improvements and research that  
40       results in better health care, improved population health, and lower costs be reaffirmed.  
41       (Reaffirm Current HOD Policy)
- 42
- 43       12. That Policy D-460.970, "Access to Clinical Trial Data," urging the FDA to investigate and  
44       develop means by which scientific investigators can access original source safety data from  
45       industry-sponsored trials upon request; be reaffirmed. (Reaffirm Current HOD Policy)

Fiscal Note: \$50,000

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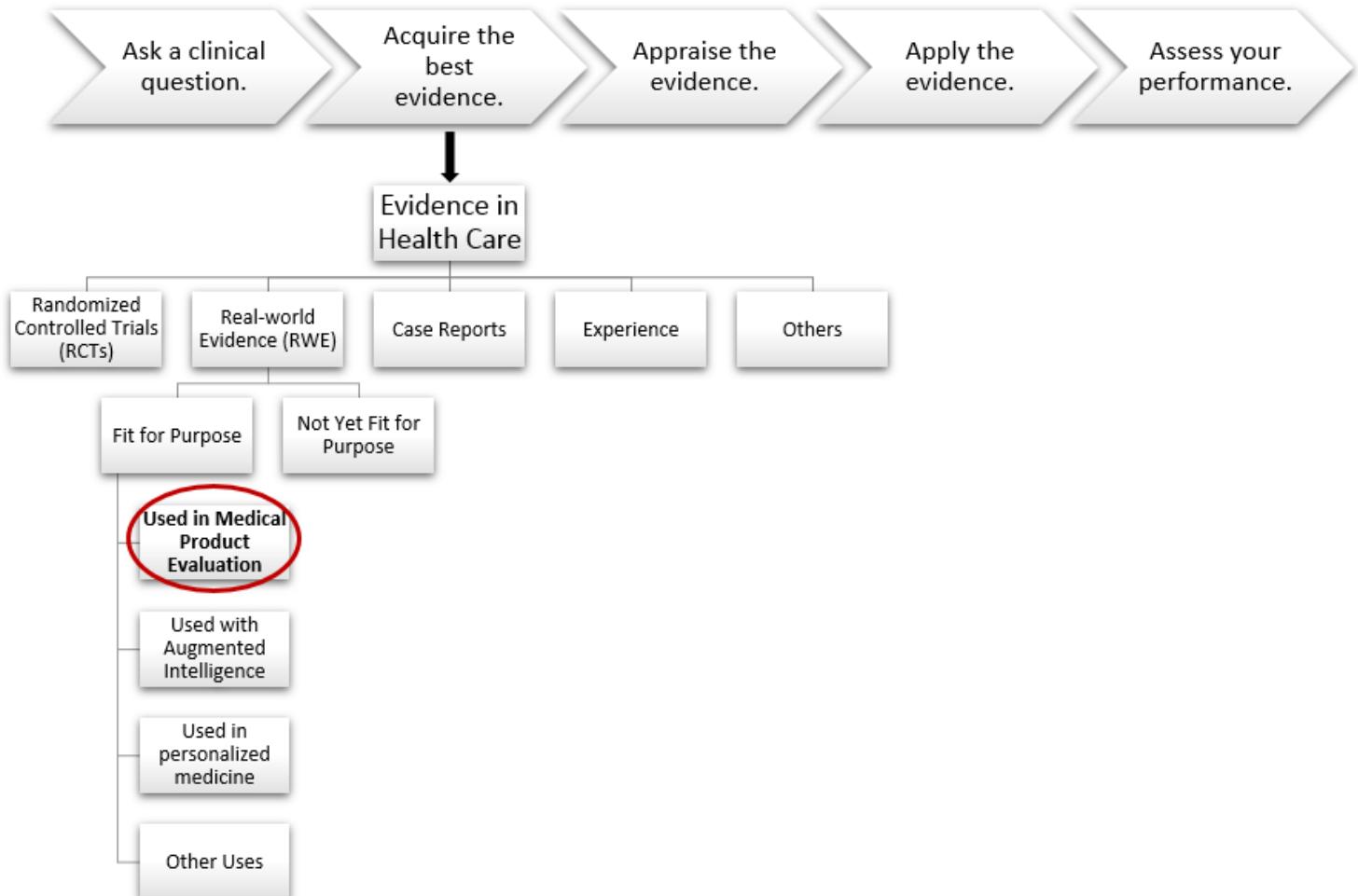
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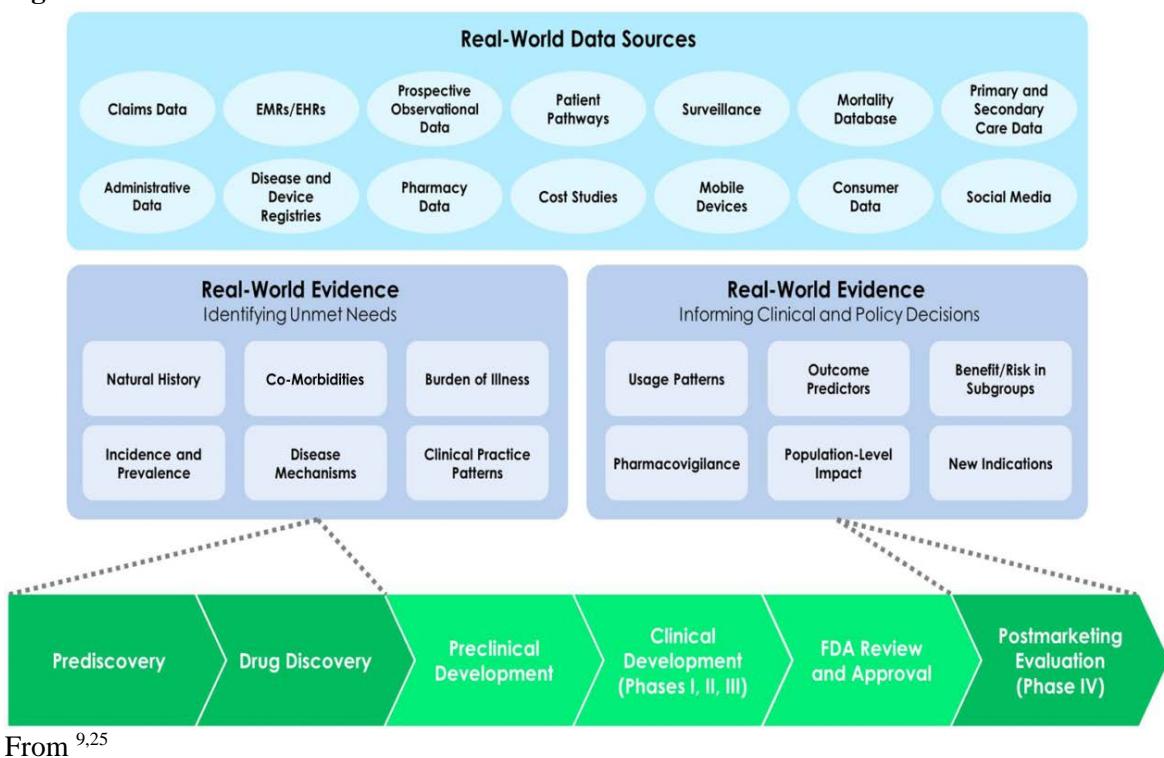
**Figure 1.**

**Scope of This Report: Where does RWE fit in to Evidence-based Practice?**

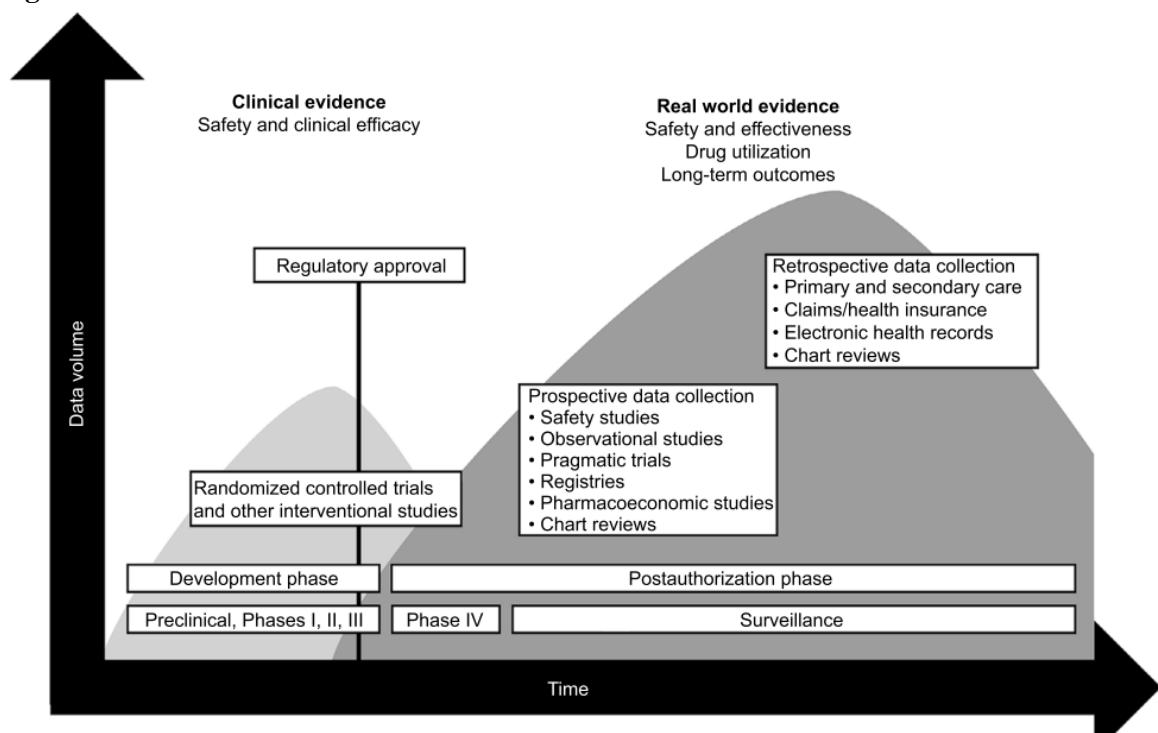
5 Steps of Evidence-based practice:



**Figure 2.**



**Figure 3.**



From 24

## APPENDIX A

## Data Networks

This is a non-comprehensive list of example data networks housing and providing RWD per request. Please see Box 1 for links to more information on the networks.

*The Sentinel Initiative*

The Sentinel Initiative, launched in 2008, began as a Congressional mandate for the FDA to establish a public-private partnership to develop a medical product safety surveillance system using existing data.<sup>35</sup> The FDA partnered with over 200 health systems leaders, pharmacoepidemiologists, clinicians, data scientists, patient representatives, and more from 31 health plans and academic organizations to form the network.<sup>15</sup>

The principal component of the Sentinel Initiative is the Sentinel System, a multi-site, privacy-preserving, curated distributed data infrastructure, and suite of analysis tools.<sup>36,37</sup> The FDA has used Sentinel to conduct more than 250 analyses, and it is now embedded in the regulatory review process through the Active Risk Identification and Analysis (ARIA) process.<sup>38</sup> ARIA is comprised of pre-defined, parameterized, reusable routine querying tools, and undergoes continuous quality checks and refreshes so analyses can be done quickly and efficiently for medical product safety surveillance.

The FDA recognizes the interest in generating effectiveness evidence and is exploring the potential of the Sentinel System to support studies of efficacy. As a part of this effort, the FDA is funding a study to explore whether observational methods can be used to replicate the results of approximately 30 clinical trials designed to provide evidence about the effectiveness of a drug. This project will assist the FDA in understanding how observational methods can be applied to evaluating drug effectiveness and may have the potential to provide evidence to inform regulatory decision-making.<sup>2</sup>

Additionally, FDA is increasing the scope of safety signals the Sentinel System evaluates by identifying opportunities to improve data, tools, and methods and has completed or has underway several projects related to patient and product safety:

- Sentinel data have informed regulatory decisions made by the FDA's Center for Drug Evaluation and Research and, in the past 2 years, have eliminated the need for post-marketing studies on nine potential safety issues associated with five products, as an example, ustekinumab and serious infections.<sup>15</sup>
- To explore how randomized trials can be conducted in real-world settings, the FDA is supporting the first randomized clinical trial in Sentinel. The IMPACT-Afib trial is testing an educational intervention to address underuse of effective medications to reduce the risk of stroke in patients with atrial fibrillation.<sup>2,15,39</sup>

FDA released a Sentinel System Five-Year Strategy which details goals for the multi-purpose national data and scientific resource center for evidence-generation that can inform health care decision-making.<sup>40</sup> The strategy also details several data improvements FDA plans to prioritize including the following:

- Scaling capabilities related to the mother-infant linkage to evaluate in-utero exposure, medical product usage during pregnancy, and post-natal outcomes.
- Working to integrate national and state registry linkages including the National Death Index (NDI), Surveillance Epidemiology and End Results (SEER), and other rare-disease registries.
- Continuing to increase the number of validated Health Outcomes of Interest (HOIs) through medical record review, drawing from increased availability of EHR linkages.
- Expanding linkages to EHR data sources from Sentinel System Data Partners and exploring potential expansion to incorporate other data partners, such as the National Patient-Centered Clinical Research Network (PCORnet).
- Increasing the availability of full medical records, including improved access to the Medicare chart review process, prioritizing electronic sources from integrated delivery systems.

#### *PCORnet*

PCORnet originated with, and evolved through funding support from the Patient-Centered Outcomes Research Institute (PCORI) to develop a range of useful resources and partnerships. Currently, PCORnet is a network that supports patient-centered research and answers questions important to patients, caregivers, clinicians, and the broader health care community.<sup>41</sup>

PCORnet is a decentralized network that is governed by a steering committee composed of patient representatives and leaders from PCORnet's constituent organizations.<sup>42</sup> PCORNet supported the largest study of bariatric surgery devices in adolescents.<sup>43</sup>

#### *MDEpiNet*

The Medical Device Epidemiology Network (MDEpiNet) is a global public-private partnership that seeks to advance the collection and use of RWD to improve patient outcomes.<sup>44</sup> MDEpiNet brings together stakeholders from across the health ecosystem to develop and improve RWD infrastructure and carry out studies to better understand how devices perform in the real-world. MDEpiNet is also focused on developing better methods and medical device registries for medical device surveillance and post-market data collection.

#### *NEST*

In 2016, the FDA awarded the Medical Device Innovation Consortium (MDIC) \$3 million to establish the National Evaluation System for health Technology Coordinating Center (NESTcc). The MDIC was in 2012 as the first public-private partnership created with the objective of advancing medical device regulatory science throughout the total product life cycle.<sup>45</sup> NESTcc aims to support sustainable generation and use of timely, reliable, and cost-effective RWE throughout the lifecycle of medical devices using RWD to support decision-making for: regulatory purposes, patients and clinicians in clinical situations, health systems purchasing, and payer coverage.<sup>46,47</sup> NESTcc has established partnerships with twelve network collaborators, including MDEpiNet, that represent more than 195 hospitals and 3,942 outpatient clinics to use high-quality RWD from various sources.

The goals of NESTcc include moving from passive surveillance to active, real-time surveillance, leveraging RWE to support regulatory decisions related to medical devices, making better use of data generated in the course of clinical care or by patients themselves, and moving away from lengthy, one-off, cost-prohibitive studies to an ecosystem that supports more routine evidence generation. NEST is setting data quality and methods standards related to observational and randomized studies; designating demonstration projects to assess feasibility and the ability to capture the data needed to support a range of studies and analyses; and offering value through products and services to key stakeholders in the ecosystem.

#### *Registries*

Device-specific and condition-specific registries have played an important role in generating clinical evidence on safety and effectiveness by collecting, curating, and analyzing data related to medical product use in routine practice over time.<sup>32</sup> Registries collect patient-level data from health systems or physician practices through various pathways and are used for many purposes, including short- and long-term surveillance, fulfillment of post-market observational study commitments for regulatory bodies, and comparative safety and effectiveness assessments, including those in under-studied subpopulations.<sup>48,49</sup> By linking medical product exposures and long-term outcomes, registries permit follow-up that can span decades.<sup>48</sup>

#### *Others*

The TREND Community data collection platform and PatientsLikeMe are examples of online platforms created that allow for the systematic gathering of patient experience data.<sup>50,51</sup> These online networks of consented patients and caregivers living with diseases are engaged in community discussions and sharing patient experiences. The communities connect scientists, doctors, therapists, research organizations, patients,

and caregivers in real time and enable them to directly organize experiments and crowd-source the collection of RWD.

Over the past several years, several companies have emerged that specialize in the collection, curation, analysis of health care technology data. For example, Aetion®, a software platform company delivering the real-world analytics and RWE, recently partnered with the FDA and Brigham and Women's Hospital/Harvard Medical School to use its software platform to re-create RCTs through RWE. The study aims to demonstrate the value of RWE as an accelerator to drug approval, particularly for supplemental indications.<sup>52</sup>

**Box 1. More information on RWD networks.**

1. [Report an adverse event](#): Any adverse event experience by patients should be reported to the [FDA Adverse Event Reporting System \(FAERS\)](#)
2. [Sentinel](#)
3. [PCORnet](#)
4. [MDEpiNet](#)
5. [NEST](#)

## APPENDIX B

## RWE Use Cases

*Salford Lung Study (Pragmatic (hybrid) Clinical Trial)*

The Salford Lung Study assessed the effectiveness and safety of fluticasone furoate in patients with chronic obstructive pulmonary disease (COPD). In this 12 month, open-label, phase 3, multicenter study, 2799 patients with COPD were randomized to a once-daily inhaled combination of fluticasone furoate and vilanterol, or to continuation of their existing therapy. This study analyzed EHR data collected during all interactions of consenting patients with physicians, pharmacists and hospitals.<sup>53</sup>

*ADAPTABLE (Pragmatic (hybrid) Clinical Trial)*

The ADAPTABLE (Aspirin Dosing: A Patient-Centric Trial Assessing Benefits and Long-Term Effectiveness) trial compares two commonly used doses of aspirin by randomizing 20,000 patients. The trial is integrated into routine clinical care with minimal inclusion/exclusion criteria and no treatment protocol requirement beyond the assignment to one of the two doses of aspirin. ADAPTABLE is using EHRs and claims data (through PCORnet) to capture primary endpoints such as death, hospitalization for non-fatal myocardial infarction or non-fatal stroke, and secondary endpoints such as coronary revascularization procedures, hospitalization for serious bleeding, and other patient-reported outcomes.<sup>1,54</sup>

*VALIDATE-SWEDEHEART (Pragmatic (hybrid) Clinical Trial)*

The VALIDATE-SWEDEHEART (The Bivalirudin versus Heparin in ST-Segment and Non-ST-Segment Elevation Myocardial Infarction in Patients on Modern Antiplatelet Therapy in the Swedish Web System for Enhancement and Development of Evidence-Based Care in Heart Disease Evaluated According to Recommended Therapies Registry) Trial was a registry-based, multicenter trial in which patients were randomized to bivalirudin or heparin during percutaneous coronary intervention. The endpoint was myocardial infarction, all-cause mortality, and major bleeding at 6 months. A national population-based Swedish registry platform was used for continuous enrollment, randomization, data collection, and follow up.<sup>1,55</sup>

*PatientsLikeMe – ALS (Patient Generated RWD)*

A PatientsLikeMe community of patients with amyotrophic lateral sclerosis (ALS), a progressive and fatal neurodegenerative condition with no effective treatments, crowdsourced an observational study. Many patients with ALS in the community reported using lithium carbonate, which had shown promise in a small study but did not have regulatory approval for use in ALS. An observational study of drug usage and disease progression from quantitative data recorded by members of the community and matched control patients was conducted. No difference in disease progression was observed after 12 months between the two study groups; similar results were reported in a subsequent RCT. Experts note that these types of observational studies are not a substitute for RCTs, but suggest that data reported by patients in online health communities could be useful for accelerating clinical discoveries and evaluating the effectiveness of drugs in use.<sup>56</sup>

## APPENDIX C

### Related AMA Policy

#### **H-75.990, “Development and Approval of New Contraceptives”**

Our AMA (1) supports congressional efforts to increase public funding of contraception and fertility research; (2) urges the FDA to consider the special health care needs of Americans who are not adequately served by existing contraceptive products when considering the safety, effectiveness, risk and benefits of new contraception drugs and devices; and (3) encourages contraceptive manufacturers to conduct post-marketing surveillance studies of contraceptive products to document the latter's long-term safety, effectiveness and acceptance, and to share that information with the FDA. (BOT Rep. O, I-91 Reaffirmed: Sunset Report, I-01 Modified: CSAPH Rep. 1, A-11)

#### **H-100.968, “Improving the Quality of Geriatric Pharmacotherapy”**

Our AMA believes that the Food and Drug Administration should encourage manufacturers to develop low dose formulations of medications commonly used by older patients in order to meet the special needs of this group; require geriatric-relevant labeling for over-the-counter medications; provide incentives to pharmaceutical manufacturers to better study medication effects in the frail elderly and oldest-old in pre- and post-marketing clinical trials; and establish mechanisms for data collection, monitoring, and analysis of medication-related problems by age group. (CSA Rep. 5, A-02 Reaffirmation A-10)

#### **D-100.982, “Enhanced Physician Access to Food and Drug Administration Data”**

Our AMA will: (1) urge the FDA to collaborate with physician organizations to develop better risk communication vehicles and approaches; (2) urge the FDA to apply new tools to gather data after drugs are approved for marketing, including a broader use of targeted post-approval studies, institution of active and sentinel event surveillance, and data mining of available drug utilization databases; (3) monitor the design and implementation of any independent drug safety board that may be instituted within the FDA, or external to the agency, and respond as appropriate; and (4) support adequate funding to implement an improved FDA postmarketing prescription drug surveillance process. (CSA Rep. 6, A-05 Modified: CSAPH Rep. 1, A-15)

#### **H-100.992, “FDA”**

(1) Our AMA reaffirms its support for the principles that: (a) an FDA decision to approve a new drug, to withdraw a drug's approval, or to change the indications for use of a drug must be based on sound scientific and medical evidence derived from controlled trials and/or postmarket incident reports as provided by statute; (b) this evidence should be evaluated by the FDA, in consultation with its Advisory Committees and expert extramural advisory bodies; and (c) any risk/benefit analysis or relative safety or efficacy judgments should not be grounds for limiting access to or indications for use of a drug unless the weight of the evidence from clinical trials and postmarket reports shows that the drug is unsafe and/or ineffective for its labeled indications.

(2) The AMA believes that social and economic concerns and disputes per se should not be permitted to play a significant part in the FDA's decision-making process in the course of FDA devising either general or product specific drug regulation.

(3) It is the position of our AMA that the Food and Drug Administration should not permit political considerations or conflicts of interest to overrule scientific evidence in making policy decisions; and our AMA urges the current administration and all future administrations to consider our best and brightest scientists for positions on advisory committees and councils regardless of their political affiliation and voting history. (Res. 119, A-80 Reaffirmed: CLRPD Rep. B, I-90 Reaffirmed: Sunset Report, I-00 Reaffirmation A-06 Appended: Sub. Res. 509, A-06 Reaffirmation I-07 Reaffirmation I-09 Reaffirmation I-10)

#### **H-110.986, “Incorporating Value into Pharmaceutical Pricing”**

1. Our AMA supports value-based pricing programs, initiatives and mechanisms for pharmaceuticals that are guided by the following principles: (a) value-based prices of pharmaceuticals should be determined by objective, independent entities; (b) value-based prices of pharmaceuticals should be evidence-based and be the result of valid and reliable inputs and data that incorporate rigorous scientific methods, including clinical trials, clinical data registries, comparative effectiveness research, and robust outcome measures that capture short- and long-term clinical outcomes; (c) processes to determine value-based prices of pharmaceuticals

must be transparent, easily accessible to physicians and patients, and provide practicing physicians and researchers a central and significant role; (d) processes to determine value-based prices of pharmaceuticals should limit administrative burdens on physicians and patients; (e) processes to determine value-based prices of pharmaceuticals should incorporate affordability criteria to help assure patient affordability as well as limit system-wide budgetary impact; and (f) value-based pricing of pharmaceuticals should allow for patient variation and physician discretion.

2. Our AMA supports the inclusion of the cost of alternatives and cost-effectiveness analysis in comparative effectiveness research.

3. Our AMA supports direct purchasing of pharmaceuticals used to treat or cure diseases that pose unique public health threats, including hepatitis C, in which lower drug prices are assured in exchange for a guaranteed market size. (CMS Rep. 05, I-16 Reaffirmed in lieu of: Res. 207, A-17 Reaffirmed: CMS-CSAPH Rep. 01, A-17 Reaffirmed: CMS Rep. 07, A-18)

**H-120.958, “Supporting Safe Medical Products as a Priority Public Health Initiative”**

Our AMA will: (1) work through the United States Adopted Names (USAN) Council to adopt methodology to help prevent "look alike-sound alike" errors in giving new drugs generic names;

(2) continue participation in the National Patient Safety Foundation's efforts to advance the science of safety in the medication use process and likewise work with the National Coordinating Council for Medication Error Reporting and Prevention;

(3) support the FDA's Medwatch program by working to improve physicians' knowledge and awareness of the program and encouraging proper reporting of adverse events;

(4) vigorously work to support and encourage efforts to create and expeditiously implement a national machine-readable coding system for prescription medicine packaging in an effort to improve patient safety;

(5) participate in and report on the work of the Healthy People 2010 initiative in the area of safe medical products especially as it relates to existing AMA policy; and

(6) seek opportunities to work collaboratively within the Medicine-Public Health initiative (H-440.991) and with the Food and Drug Administration (FDA), National Institutes of Health (NIH), United States Pharmacopoeia (USP) and Centers for Disease Control and Prevention (CDC) the Agency for Health Care Policy and Research (AHCPR) and the Centers for Medicare & Medicaid Services (CMS) to provide information to individual physicians and state medical societies on the need for public health infrastructure and local consortiums to work on problems related to medical product safety. (Res. 416, A-99 Appended: Res. 504, I-01 Reaffirmation A-10)

**H-315.973, “Guiding Principles for the Collection, Use and Warehousing of Electronic Medical Records and Claims Data”**

1. It is AMA policy that any payer, clearinghouse, vendor, or other entity that collects and uses electronic medical records and claims data adhere to the following principles: a. Electronic medical records and claims data transmitted for any given purpose to a third party must be the minimum necessary needed to accomplish the intended purpose. b. All covered entities involved in the collection and use of electronic medical records and claims data must comply with the HIPAA Privacy and Security Rules. c. The physician must be informed and provide permission for any analysis undertaken with his/her electronic medical records and claims data, including the data being studied and how the results will be used. d. Any additional work required by the physician practice to collect data beyond the average data collection for the submission of transactions (e.g., claims, eligibility) must be compensated by the entity requesting the data. e. Criteria developed for the analysis of physician claims or medical record data must be open for review and input by relevant outside entities. f. Methods and criteria for analyzing the electronic medical records and claims data must be provided to the physician or an independent third party so re-analysis of the data can be performed. g. An appeals process must be in place for a physician to appeal, prior to public release, any adverse decision derived from an analysis of his/her electronic medical records and claims data. h. Clinical data collected by a data exchange network and searchable by a record locator service must be accessible only for payment and health care operations.

2. It is AMA policy that any physician, payer, clearinghouse, vendor, or other entity that warehouses electronic medical records and claims data adhere to the following principles: a. The warehouse vendor must take the necessary steps to ensure the confidentiality, integrity, and availability of electronic medical records and claims data while protecting against threats to the security or integrity and unauthorized uses or disclosure of the information. b. Electronic medical records data must remain accessible to authorized users

for purposes of treatment, public health, patient safety, quality improvement, medical liability defense, and research. c. Physician and patient permission must be obtained for any person or entity other than the physician or patient to access and use individually identifiable clinical data, when the physician is specifically identified. d. Following the request from a physician to transfer his/her data to another data warehouse, the current vendor must transfer the electronic medical records and claims data and must delete/destroy the data from its data warehouse once the transfer has been completed and confirmed. (CMS Rep. 6, I-06 Reaffirmed: BOT Rep. 17, A-13)

**D-315.984, "Ownership of Claims Data"**

Our AMA will: (1) encourage physicians to include language designed to buttress rights associated with claims data ownership and access when contracting with health plan payers and other third parties; (2) continue to educate physicians on providing public and private health plan payers the "minimum necessary," as defined in the Health Insurance Portability and Accountability Act (HIPAA) of 1996 and regulations thereunder, protected health information necessary to achieve the purpose of a disclosure; (3) assist physicians wishing to register a complaint against health plan payers that have used claims data to form a database, or that have permitted access to or sale of the database or its contents without explicit patient and/or physician authorization, beyond the scope permitted by HIPAA with the Department of Health and Human Services Office of Civil Rights; (4) advocate to the Department of Health and Human Services, Office of the National Coordinator of Health Information Technology and/or other appropriate agencies for rules and regulations ensuring appropriate physician ownership and access rights to claims data, and appropriate protection of claims data held by various parties; and (5) continue to monitor federal and state activities impacting the exchange of physician-generated health information, including claims data. (BOT Rep. 19, I-06 Modified: CCB/CLRPD Rep. 2, A-14)

**H-406.987, "Medical Information and Its Uses"**

**DATA TRANSPARENCY PRINCIPLES TO PROMOTE IMPROVEMENTS IN QUALITY AND CARE DELIVERY**

Our AMA seeks to help physicians improve the quality reporting of patient care data and adapt to new payment and delivery models to transform our health care system. One means of accomplishing this goal is to increase the transparency of health care data. The principles outlined below ensure that physicians, practices, care systems, physician-led organizations, patients and other relevant stakeholders can access and proactively use meaningful, actionable health care information to achieve care improvements and innovations. These principles do not replace but build upon existing AMA policies H-406.990, H-406.989, H-406.991, and H-406.996 that address safeguards for the release of physician data and physician profiles, expanding these guidelines to reflect the new opportunities and potential uses of this information.

**Transparency Objectives and Goals**

**Engaging Physicians** - Our AMA encourages greater physician engagement in transparency efforts, including the development of physician-led quality measures to ensure that gaps in measures are minimized and that analyses reflect the knowledge and expertise of physicians.

**Promoting New Payment and Delivery Models** - Our AMA supports appropriate funding and other support to ensure that the data that are used to inform new payment and delivery models are readily available and do not impose a new cost or additional burden on model participants.

**Improving Care Choices and Decisions** - Our AMA promotes efforts to present data appropriately depending on the objective and the relevant end-user, including transparently identifying what information is being provided, for what purpose, and how the information can or cannot be used to influence care choices.

**Informing Physicians** - Our AMA encourages the development of user interfaces that allow physicians or their staff to structure simple queries to obtain and track actionable reports related to specific patients, peer comparisons, provider-level resource use, practice patterns, and other relevant information.

**Informing Patients** - Our AMA encourages patients to consult with physicians to understand and navigate health care transparency and data efforts.

**Informing Other Consumers** - Our AMA seeks opportunities to engage with other stakeholders to facilitate physician involvement and more proactive use of health care data.

**Data Transparency Resources**

**Data Availability** - Our AMA supports removing barriers to accessing additional information from other payers and care settings, focusing on data that is valid, reliable, and complete.

Access to Timely Data - While some datasets will require more frequent updates than others, our AMA encourages use of the most current information and that governmental reports are made available, at a minimum, from the previous quarter.

Accurate Data - Our AMA supports proper oversight of entities accessing and using health care data, and more stringent safeguards for public reporting, so that information is accurate, transparent, and appropriately used.

Use of Quality Data - Our AMA supports definitions of quality based on evidence-based guidelines, measures developed and supported by specialty societies, and physician-developed metrics that focus on patient outcomes and engagement.

Increasing Data Utility - Our AMA promotes efforts by clinical data registries, regional collaborations, Qualified Entities, and specialty societies to develop reliable and valid performance measures, increase data utility and reduce barriers that currently limit access to and use of the health care data.

#### Challenges to Transparency

Standardization - Our AMA supports improvements in electronic health records (EHRs) and other technology to capture and access data in uniform formats.

Mitigating Administrative Burden - To reduce burdens, data reporting requirements imposed on physicians should be limited to the information proven to improve clinical practice. Collection, reporting, and review of all other data and information should be voluntary.

Data Attribution - Our AMA seeks to ensure that those compiling and using the data avoid attribution errors by working to correctly assign services and patients to the appropriate provider(s) as well as allowing entities to verify who or where procedures, services, and items were performed, ordered, or otherwise provided. Until problems with the current state of episode of care and attribution methodologies are resolved, our AMA encourages public data and analyses primarily focused at the system-level instead of on individual physicians or providers. (BOT Rep. 6, A-15)

#### **H-406.989, “Work of the Task Force on the Release of Physician Data”**

1. Our AMA Council on Legislation will use the Release of Claims and Payment Data from Governmental Programs as a basis for draft model legislation. 2. Our AMA will create additional tools to assist physicians in dealing with the release of physician data. 3. Our AMA will continue to monitor the status of, and take appropriate action on, any legislative or regulatory opportunities regarding the appropriate release and use of physician data and its use in physician profiling programs. 4. Our AMA will monitor new and existing Web sites and programs that collect and use data on patient satisfaction and take appropriate action when safeguards are not in place to ensure the validity of the results. 5. Our AMA will continue and intensify its extensive efforts to educate employers, healthcare coalitions and the public about the potential risks and liabilities of pay-for-performance and public reporting programs that are not consistent with AMA policies, principles, and guidelines. 6. Our AMA: A) opposes the public reporting of individual physician performance data collected by certification and licensure boards for purposes of MOC and MOL; and B) supports the principle that individual physician performance data collected by certification and licensure boards should only be used for the purposes of helping physicians to improve their practice and patient care, unless specifically approved by the physician. (BOT Rep. 18, A-09 Reaffirmed: BOT action in response to referred for decision Res. 709, A-10, Res. 710, A-10, Res. 711, A-10 and BOT Rep. 17, A-10 Reaffirmed in lieu of Res. 808, I-10 Appended: Res. 327, A-11 Modified: CCB/CLRPD Rep. 2, A-14)

#### **H-406.990, “Work of the Task Force on the Release of Physician Data”**

##### Release of Claims and Payment Data from Governmental Programs

The AMA encourages the use of physician data to benefit both patients and physicians and to improve the quality of patient care and the efficient use of resources in the delivery of health care services. The AMA supports this use of physician data only when it preserves access to health care and is used to provide accurate physician performance assessments.

Raw claims data used in isolation have significant limitations. The release of such data from government programs must be subject to safeguards to ensure that neither false nor misleading conclusions are derived that could undermine the delivery of appropriate and quality care. If not addressed, the limitations of such data are significant. The foregoing limitations may include, but are not limited to, failure to consider factors that impact care such as specialty, geographic location, patient mix and demographics, plan design, patient compliance, drug and supply costs, hospital and service costs, professional liability coverage, support staff and other practice costs as well as the potential for mistakes and errors in the data or its attribution.

Raw claims and payment data resulting from government health care programs, including, but not limited to, the Medicare and Medicaid programs should only be released:

1. when appropriate patient privacy is preserved via de-identified data aggregation or if written authorization for release of individually identifiable patient data has been obtained from such patient in accordance with the requirements of the Health Insurance Portability and Accountability Act (HIPAA) and applicable regulations;
  2. upon request of physicians [or their practice entities] to the extent the data involve services that they have provided;
  3. to law enforcement and other regulatory agencies when there is reasonable and credible reason to believe that a specific physician [or practice entity] may have violated a law or regulation, and the data is relevant to the agency's investigation or prosecution of a possible violation;
  4. to researchers/policy analysts for bona fide research/policy analysis purposes, provided the data do not identify specific physicians [or their practice entities] unless the researcher or policy analyst has (a) made a specific showing as to why the disclosure of specific identities is essential; and, (b) executed a written agreement to maintain the confidentiality of any data identifying specific physicians [or their practice entities];
  5. to other entities only if the data do not identify specific physicians [or their practice entities]; or
  6. if a law is enacted that permits the government to release raw physician-specific Medicare and/or Medicaid claims data, or allows the use of such data to construct profiles of identified physicians or physician practices. Such disclosures must meet the following criteria: (a) the publication or release of this information is deemed imperative to safeguard the public welfare; (b) the raw data regarding physician claims from governmental healthcare programs is: (i) published in conjunction with appropriate disclosures and/or explanatory statements as to the limitations of the data that raise the potential for specific misinterpretation of such data. These statements should include disclosure or explanation of factors that influence the provision of care including geographic location, specialty, patient mix and demographics, health plan design, patient compliance, drug and supply costs, hospital and service costs, professional liability coverage, support staff and other practice costs as well as the potential for mistakes and errors in the data or its attribution, in addition to other relevant factors. (ii) safeguarded to protect against the dissemination of inconsistent, incomplete, invalid or inaccurate physician-specific medical practice data.
- (c) any physician profiling which draws upon this raw data acknowledges that the data set is not representative of the physicians' entire patient population and uses a methodology that ensures the following: (i) the data are used to profile physicians based on quality of care provided - never on utilization of resources alone - and the degree to which profiling is based on utilization of resources is clearly identified. (ii) data are measured against evidence-based quality of care measures, created by physicians across appropriate specialties. (iii) the data and methodologies used in profiling physicians, including the use of representative and statistically valid sample sizes, statistically valid risk-adjustment methodologies and statistically valid attribution rules produce verifiably accurate results that reflect the quality and cost of care provided by the physicians. (d) any governmental healthcare data shall be protected and shared with physicians before it is released or used, to ensure that physicians are provided with an adequate and timely opportunity to review, respond and appeal the accuracy of the raw data (and its attribution to individual physicians) and any physician profiling results derived from the analysis of physician-specific medical practice data to ensure accuracy prior to their use, publication or release. (BOT Rep. 18, A-09 Reaffirmed: BOT Rep. 09, A-19 Modified: Speakers Rep., A-19)

#### **H-406.991, “Work of the Task Force on the Release of Physician Data”**

##### **Principles for the Public Release and Accurate Use of Physician Data**

The AMA encourages the use of physician data to benefit both patients and physicians and to improve the quality of patient care and the efficient use of resources in the delivery of health care services. The AMA supports this use of physician data when it is used in conjunction with program(s) designed to improve or maintain the quality of, and access to, medical care for all patients and is used to provide accurate physician performance assessments in concert with the following Principles:

1. Patient Privacy Safeguards
- All entities involved in the collection, use and release of claims data comply with the HIPAA Privacy and Security Rules (H-315.972, H-315.973, H-315.983, H-315.984, H-315.989, H-450.947).

- Disclosures made without patient authorization are generally limited to claims data, as that is generally the only information necessary to accomplish the intended purpose of the task (H-315.973, H-315.975, H-315.983).

**2. Data Accuracy and Security Safeguards**

- Effective safeguards are established to protect against the dissemination of inconsistent, incomplete, invalid or inaccurate physician-specific medical practice data (H-406.996, H-450.947, H-450.961).

- Reliable administrative, technical, and physical safeguards provide security to prevent the unauthorized use or disclosure of patient or physician-specific health care data and physician profiles (H-406.996, H-450.947, H-450.961).

- Physician-specific medical practice data, and all analyses, proceedings, records and minutes from quality review activities are not subject to discovery or admittance into evidence in any judicial or administrative proceeding without the physician's consent (H-406.996, H-450.947, H-450.961).

**3. Transparency Requirements**

- When data are collected and analyzed for the purpose of creating physician profiles, the methodologies used to create the profiles and report the results are developed in conjunction with relevant physician organizations and practicing physicians and are disclosed in sufficient detail to allow each physician or medical group to re-analyze the validity of the reported results prior to more general disclosure (H-315.973, H-406.993, H-406.994, H-406.998, H-450.947, H-450.961).

- The limitations of the data sources used to create physician profiles are clearly identified and acknowledged in terms understandable to consumers (H-406.994, H-450.947).

- The capabilities and limitations of the methodologies and reporting systems applied to the data to profile and rank physicians are publicly revealed in understandable terms to consumers (H-315.973, H-406.994, H-406.997, H-450.947, H-450.961).

- Case-matched, risk-adjusted resource use data are provided to physicians to assist them in determining their relative utilization of resources in providing care to their patients (H-285.931).

**4. Review and Appeal Requirements**

- Physicians are provided with an adequate and timely opportunity to review, respond and appeal the results derived from the analysis of physician-specific medical practice data to ensure accuracy prior to their use, publication or release (H-315.973, H-406.996, H-406.998, H-450.941, H-450.947, H-450.961).

- When the physician and the rater cannot reach agreement, physician comments are appended to the report at the physician's request (H-450.947).

**5. Physician Profiling Requirements**

- The data and methodologies used in profiling physicians, including the use of representative and statistically valid sample sizes, statistically valid risk-adjustment methodologies and statistically valid attribution rules produce verifiably accurate results that reflect the quality and cost of care provided by the physicians (H-406.994, H-406.997, H-450.947, H-450.961).

- Data reporting programs only use accurate and balanced data sources to create physician profiles and do not use these profiles to create tiered or narrow network programs that are used to steer patients towards certain physicians primarily on cost of care factors (450.951).

- When a single set of claims data includes a sample of patients that are skewed or not representative of the physicians' entire patient population, multiple sources of claims data are used.

- Physician efficiency of care ratings use physician data for services, procedures, tests and prescriptions that are based on physicians' patient utilization of resources so that the focus is on comparative physicians' patient utilization and not on the actual charges for services.

- Physician-profiling programs may rank individual physician members of a medical group but do not use those individual rankings for placement in a network or for reimbursement purposes.

**6. Quality Measurement Requirements**

- The data are used to profile physicians based on quality of care provided - never on utilization of resources alone -- and the degree to which profiling is based on utilization of resources is clearly identified (H-450.947).

- Data are measured against evidence-based quality of care measures, created by physicians across appropriate specialties, such as the Physician Consortium for Performance Improvement. (H-406.994, H-406.998, H-450.947, H-450.961).

- These evidence-based measures are endorsed by the National Quality Forum (NQF) and/or the AQA and HQA, when available. When unavailable, scientifically valid measures developed in conjunction with appropriate medical specialty societies and practicing physicians are used to evaluate the data.

**7. Patient Satisfaction Measurement Requirements**

- Until the relationship between patient satisfaction and other outcomes is better understood, data collected on patient satisfaction is best used by physicians to better meet patient needs particularly as they relate to favorable patient outcomes and other criteria of high quality care (H-450.982).
- Because of the difficulty in determining whether responses to patient satisfaction surveys are a result of the performance of a physician or physician office, or the result of the demands or restrictions of health insurers or other factors out of the control of the physician, the use of patient satisfaction data is not appropriate for incentive or tiering mechanisms.
- As in physician profiling programs, it is important that programs that publicly rate physicians on patient satisfaction notify physicians of their rating and provide a chance for the physician to appeal that rating prior to its publication. (BOT Rep. 18, A-09 Reaffirmation A-10 Reaffirmed: BOT action in response to referred for decision Res. 709, A-10, Res. 710, A-10, Res. 711, A-10 and BOT Rep. 17, A-10 Reaffirmation I-10 Reaffirmed in lieu of Res. 808, I-10 Reaffirmed in lieu of Res. 824, I-10 Reaffirmation A-11 Reaffirmed: BOT Rep. 17, A-13 Reaffirmed: Res. 806, I-13 Reaffirmation: A-19)

**H-406.996, “Use and Release of Physician-Specific Health Care Data”**

- (1) Our AMA advocates that third party payers, government entities and others that use and release physician-specific health care data adhere to the following principles: (a) Physicians under review and relevant physician organizations shall be provided with an adequate opportunity to review and respond to proposed physician-specific health care data interpretations and disclosures prior to their publication or release. (b) Effective safeguards to protect against the dissemination of inconsistent, incomplete, invalid, inaccurate or subjective physician-specific health care data shall be established. (c) Reliable administrative, technical, and physical safeguards to prevent the unauthorized use or disclosure of physician-specific health care data shall be developed. (d) Such safeguards shall treat all underlying physician-specific health care data and all analyses, proceedings, records, and minutes from quality review activities on physician-specific health care data as confidential, and provide that none of these documents shall be subject to discovery, or admitted into evidence in any judicial or administrative proceeding.
- (2) Our AMA supports release of severity-adjusted physician-specific health care data from carefully selected pilot projects where the data may be deemed accurate, reliable, and meaningful to physicians, consumers, and purchaser;
- (3) Our AMA urges that any published physician-specific health care data be limited to appropriate data concerning the quality of health care, access to health care, and the cost of health care;
- (4) Our AMA opposes the publication of physician-specific health care data collected outside of carefully selected pilot studies or where the data are not deemed accurate, reliable, or meaningful;
- (5) Our AMA urges that a copy of the information in any such profile be forwarded to the subject physician, and that the physician be given the right to review and certify adequacy of the information prior to any profile being distributed, including being placed on the Internet; and
- (6) Our AMA urges that the costs associated with creation of any such profiling system should not be paid for by physicians licensure fees. (BOT Rep. Q, I-92 BOT Rep. W, A-92 Reaffirmed: Res. 719, A-93 CMS Rep. 10, A-96 Appended: Res. 316, I-97 Reaffirmation A-01 Reaffirmation A-02 Reaffirmation A-05 Reaffirmed in lieu of Res. 724, A-05 Reaffirmed: BOT action in response to referred for decision Res. 709, A-10, Res. 710, A-10, Res. 711, A-10 and BOT Rep. 17, A-10)

**H-406.999, “Goal of Health Care Data Collection”**

The AMA (1) continues to advocate that health care data collected by government and third party payers be used for education of both consumers and providers; and (2) believes that government, third party payers and self-insured companies should make physician-specific utilization information available to medical societies. (BOT Rep. W, A-92 Reaffirmed: Res. 719, A-93 BOT Rep. Y, I-85 Reaffirmed CLRDP Rep. 2, I-95 CMS Rep. 10, A-96 Reaffirmed: CMS Rep. 8, A-06 Reaffirmed: CMS Rep. 01, A-16)

**H-410.948, “Clinical Pathways”**

Our AMA supports the development of transparent, collaboratively constructed clinical pathways that: (1) are implemented in ways that promote administrative efficiencies for both providers and payers; (2) promote access to evidence-based care for patients; (3) recognize medical variability among patients and individual patient autonomy; (4) promote access to clinical trials; and (5) are continuously updated to reflect the rapid development of new scientific knowledge. (Res. 708, A-16 Reaffirmed: CMS Rep. 06, A-18)

**H-450.933, “Clinical Data Registries”**

1. Our AMA encourages multi-stakeholder efforts to develop and fund clinical data registries for the purpose of facilitating quality improvements and research that result in better health care, improved population health, and lower costs.
  2. Our AMA encourages national medical specialty societies, state medical associations, and other physician groups to join the National Quality Registry Network and to participate in efforts to advance the development and use of clinical data registries.
  3. Our AMA supports flexibility in the development and implementation of clinical data registries. The following guidelines can help maximize opportunities for clinical data registries to enhance the quality of care provided to patients: a. Practicing physicians must be actively involved in decisions related to the development, maintenance and use of clinical data registries and registry data. b. Data elements, risk-adjustment models and measures used in the registry should be fully transparent. c. Registries should provide timely, actionable feedback reports to individual physicians or entities reporting at the organizational level. d. Registries and electronic health records should be interoperable, and should be capable of sharing and integrating information across registries and with other data sources in a HIPAA-compliant and confidential manner. e. Registry stewards should establish a formal process to facilitate the modification, expansion, or dissolution of the registry in order to accommodate advances in technology and changing clinical data needs to ensure continued utility of their registry.
  4. Our AMA encourages physicians to participate in clinical data registries, and will encourage efforts that help physicians identify existing registries suitable for and of benefit to their patient populations and their practices.
  5. Our AMA will continue to advocate for and support initiatives that minimize the costs and maximize the benefits of physician practice participation in clinical data registries.
  6. Our AMA supports that, with the consent of the participating physician, physician-specific clinical registry data may be used to meet third-party quality reporting requirements, in accordance with the following principles: a. Data should be used to improve the quality of patient care and the efficient use of resources in the delivery of health care services. b. Data related to resource use and cost of care must be evaluated and reported in conjunction with quality of care information. c. Effective safeguards must be established to protect against the dissemination of inconsistent, incomplete, invalid or inaccurate physician-specific medical practice data. d. Case-matched, risk-adjusted quality measure and resource use data are provided to physicians to assist them in determining their relative utilization of resources in providing care to their patients. e. When data are collected and analyzed for the purpose of meeting quality reporting requirements, the methodologies used to create the profiles and report the results are developed in conjunction with relevant physician organizations and practicing physicians, and are disclosed in sufficient detail to allow each physician or medical group to re-analyze the validity of the reported results prior to more general disclosure.
- (CMS Rep. 8, A-14 Reaffirmed: CMS Rep. 05, I-16 Reaffirmed: CMS Rep. 10, A-17)

**H-460.926, “Funding of Biomedical, Translational, and Clinical Research”**

Our AMA: (1) reaffirms its long-standing support for ample federal funding of medical research, including basic biomedical research, translational research, clinical research and clinical trials, health services research, outcomes research, and prevention research; and (2) encourages the National Institutes of Health, the Agency for Healthcare Research and Quality and other appropriate bodies to develop a mechanism for the continued funding of translational research. (Sub. Res. 507, I-97 Reaffirmed: CSA Rep. 13, I-99 Modified: Res. 503, and Reaffirmation A-00 Modified: CSAPH Rep. 1, A-10)

**H-460.943, “Potential Impact of Health System Reform Legislative Reform Proposals on Biomedical Research and Clinical Investigation”**

The AMA, to encourage and support the continuing development of new advances in science and medicine and the development and implementation of meaningful quality assurance programs essential to improving the delivery of medical and health care in the United States, advocates:

- (1) Strong support and funding for medical education programs at all levels to attract and stimulate gifted students and physicians to receive training and experience in, and to participate in, basic science or clinically-oriented research programs.
- (2) Strong financial and policy support for all aspects of biomedical science and research, including: basic science research (investigator initiated grant-funded research) in a wide variety of fields; laboratory-based

clinical studies (including surgical studies); clinical studies and therapy trials; clinical outcomes research; behavioral science research, including studies to assess implementation of health promotion and/or disease prevention activities; and technology transfer research, with an emphasis on diffusing information about, training personnel in, and encouraging appropriate use of new technologies.

(3) Adequate federal funding for biomedical science programs, including an appropriate balance of funding for basic, clinical, health service, and public health/prevention research.

(4) Support and funding for evaluation and implementation research, including drug and technology assessment, medical device review, and developing and setting standards for computerized medical records. (CSA Rep. 10, A-94 Reaffirmed: CSA Rep. 8, A-05 Reaffirmed: CSAPH Rep. 1, A-15)

**D-460.970, “Access to Clinical Trial Data”**

Our AMA: (1) urges the Food and Drug Administration to investigate and develop means by which scientific investigators can access original source safety data from industry-sponsored trials upon request; and (2) supports the adoption of universal policy by medical journals requiring participating investigators to have independent access to all study data from industry-sponsored trials. (Res. 503, A-14 Reaffirmed: Res. 907, I-15)

**D-460.972, “Creation of a National Registry for Healthy Subjects in Phase I Clinical Trials”**

Our AMA encourages the development and implementation of a national registry, with minimally identifiable information, for healthy subjects in Phase 1 trials by the US Food and Drug Administration or other appropriate organizations to promote subject safety, research quality, and to document previous trial participation. (Res. 913, I-11)

**H-525.991, “Inclusion of Women in Clinical Trials”**

Our AMA: (1) encourages the inclusion of women, including pregnant women when appropriate, in all research on human subjects, except in those cases for which it would be scientifically irrational, in numbers sufficient to ensure that results of such research will benefit both men and women alike; (2) supports the National Institutes of Health policy requiring investigators to account for the possible role of sex as a biological variable in vertebrate animal and human studies; and (3) encourages translation of important research results into practice. (Res. 183, I-90 Reaffirmed: Sunset Report, I-00 Reaffirmed: CSAPH Rep. 1, A-10 Modified: CSAPH Rep. 05, A-16 Reaffirmed: Res. 909, I-16)

**8.8 Required Reporting of Adverse Events**

Physicians' professional commitment to advance scientific knowledge and make relevant information available to patients, colleagues, and the public carries with it the responsibility to report suspected adverse events resulting from the use of a drug or medical device.

Mandated pre- and post-marketing studies provide basic safeguards for public health, but are inherently limited in their ability to detect rare or unexpected consequences of use of a drug or medical device. Thus spontaneous reports of adverse events, especially rare or delayed effects or effects in vulnerable populations are irreplaceable as a source of information about the safety of drugs and devices. As the professionals who prescribe and monitor the use of drugs and medical devices, physicians are best positioned to observe and communicate about adverse events.

Cases in which there is clearly a causal relationship between use of a drug/device and an adverse event, especially a serious event, will be rare. Physicians need not be certain that there is such an event, or even that there is a reasonable likelihood of a causal relationship, to suspect that an adverse event has occurred. A physician who suspects that an adverse reaction to a drug or medical device has occurred has an ethical responsibility to: (a) Communicate that information to the professional community through established reporting mechanisms. (b) Promptly report serious adverse events requiring hospitalization, death, or medical or surgical intervention to the appropriate regulatory agency.

AMA Principles of Medical Ethics: I, V, VII

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