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ONE HUNDRED TWELFTH CONGRESS
Congress of the United States
House of Representatives
COMMITTEE ON ENERGY AND COMMERCE
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SUPPLEMENTAL MEMORANDUM

July 20, 2011

To: Democratic Members of the Subcommittee on Oversight and Investigations

Fr: Oversight and Investigations Democratic Staff

Re: Supplemental Information on "Regulatory Reform Series #5 - FDA Medical Device Regulation: Impact on American Patients, Innovation, and Jobs."

On Wednesday, July 20, 2011, at 10:00 a.m. in room 2322 of the Rayburn House Office Building, the Subcommittee on Oversight and Investigations will hold a hearing titled "Regulatory Reform Series #5 - FDA Medical Device Regulation: Impact on American Patients, Innovation, and Jobs." The majority has indicated that the hearing will focus on the state of the medical device industry and the impact regulations and policies at the Center for Devices and Radiological Health have on patient access, innovation, and job creation.

Committees in both the House and Senate, including the House Committee on Energy and Commerce, have recently held hearings on FDA regulation of medical devices. During these hearings, proponents of a weaker regulatory regime have repeatedly referred to two reports to claim that FDA's medical device clearances and approvals are slower than those of the European Union.[1] The first report is titled *FDA Impact on U.S. Medical Technology Innovation* and was written by Dr. Joshua Makower and co-authors.[2] The second report is titled *Competitiveness and*

[1] See, e.g., Reps. Pitts, Upton, Lance, and Blackburn, House Committee on Energy and Commerce, *Impact of Medical Device Regulation on Jobs and Patients* (Feb. 17, 2011); Reps. Pitts, Burgess, Blackburn, House Committee on Energy and Commerce, *PDUFA V: Medical Innovation, Jobs and Patients* (July 7, 2011).

[2] Makower, J., Meer, A., and Denend, L., *FDA Impact on U.S. Medical Device Technology Innovation* (Nov. 2010) (online at www.inhealth.org/doc/Page.asp?PageID=DOC000188) (accessed on July 19, 2011).

Regulation: The FDA and the Future of America's Biomedical Industry and was written by the California Healthcare Institute and co-authors.[3] Both studies were funded by the medical device industry and neither was published in a peer-reviewed journal.

To determine whether these studies form an appropriate basis for policymaking, the Democratic staff of the House Committee on Energy and Commerce requested their review by three editors of the premier peer-reviewed medical journals in the United States: Dr. Gregory Curfman, Executive Editor of New England Journal of Medicine; Dr. Rita Redberg, Editor-in-Chief of the Archives of Internal Medicine; and Dr. Howard Bauchner, Editor-in-Chief of the Journal of the American Medical Association. At the staff's request, officials from FDA also submitted comments on the studies.[4]

I. KEY FINDINGS

All three independent reviewers and the Food and Drug Administration identified major problems with both studies, raising significant questions about their methodologies and their appropriateness for serving as the basis of new policies governing the medical device approval process.

A. Makower Study Findings

Dr. Makower and his co-authors based his findings on a survey of medical device firms and concluded that "data from the survey clearly indicate that European regulatory processes allow innovators to make new medical technologies available to patients more quickly and at a lower cost."[5] One industry group stated: "This powerful study provides compelling evidence of

[3] California Healthcare Institute and the Boston Consulting Group, *Competitiveness and Regulation: The FDA and the Future of America's Biomedical Industry* (Feb. 2011) (online at www.bcg.com/documents/file72060.pdf) (accessed on July 19, 2011).

[4] The Democratic staff of the House Energy and Commerce Committee posed the following questions: (1) "What would you identify as the major methodological issues (whether positive or negative) of this study?"; (2) "Specifically [for the Makower study], can you comment on the response rate for the survey overall, and for the subgroup regarding the time to first contact?"; (3) "Do you have any views on the methodology used in the study to compare E.U. and U.S. approval times?"; (4) "Would you recommend publication of this study in a peer-reviewed journal?"; and (5) "Are there issues not addressed at all in this study that might be helpful in a comparison of the EU and US?" Dr. Bauchner declined to provide comments on the CHI study, citing a conflict of interest.

[5] Makower, J., Meer, A., and Denend, L., *FDA Impact on U.S. Medical Device Technology Innovation* (Nov. 2010) (online at www.inhealth.org/doc/Page.asp?PageID=DOC000188) (accessed on July 19, 2011).

what we have been hearing for years . . .: the current regulatory environment is adversely impacting innovation, patient care and job-creation here in the United States."[6]

Dr. Makower testified that "the study found that for low- and moderate-risk devices, the process to navigate the FDA took companies up to two years longer than it did for a similar approval from European regulators. For higher-risk devices, the discrepancy was greater -- in the U.S., it took three and a half years, or five times as long as Europe, to grant approval."[7]

Dr. Makower sent his survey to approximately 750 potential participants. Of these, only 204 responded. Dr. Makower used the experience of 15 of these respondents to conclude that the medical device approval process takes 31 months under the FDA's 510(k) notification program in contrast to just seven months for medical device approval under the European Union system.[8]

The reviewers identified numerous methodological flaws in the study. These include:

- The existence of "so many flaws in design and execution that the authors' conclusions are rendered essentially meaningless."[9]
- A "woefully inadequate" response rate of only 20%.[10]
- A biased group of respondents including firms that "had never gone through the process of getting a product reviewed by the FDA."[11]
- A "subjective,"[12] "apples to oranges,"[13] and "especially troublesome"[14] comparison of approval times in the European Union and the FDA.

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[6] Medical Device Manufacturers Association, *Powerful New Study Details the FDA Role in Med-Tech Innovation* (Nov. 18, 2010) (online at www.medicaldevices.org/node/846) (accessed on July 19, 2011).

[7] House Committee on Energy and Commerce, Testimony by Dr. Joshua Makower, *Impact of Medical Device Regulation on Jobs and Patients* (Feb. 17, 2011).

[8] *Id.*

[9] Letter from Gregory D. Curfman, M.D., Executive Editor, New England Journal of Medicine, to Henry A. Waxman, Ranking Member, House Committee on Energy and Commerce (July 15, 2011).

[10] *Id.*

[11] Letter from Jeanne Ireland, Assistant Commissioner for Legislation, U.S. Food and Drug Administration, to Henry A. Waxman, Ranking Member, House Committee on Energy and Commerce (July 18, 2011).

- The failure to provide "any evidence that this [U.S.] delay or lack of availability leads to adverse health outcomes."[15]

After reviewing the paper, the editors of the three premier peer-reviewed medical journals concluded that the study would not be fit for publication in a peer-reviewed journal. Dr. Curfman concluded that "it is not really a study at all."[16] Dr. Redberg found "several serious methodological issues with the Makower report that render its findings scientifically invalid."[17] Dr. Bauchner determined that "[g]iven the extent of these limitations, the inferences and conclusions that can reliably drawn from this report are limited.[18] Finally, all three editors identified significant conflict of interest concerns with the report.[19]

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[12] Letter from Gregory D. Curfman, M.D., Executive Editor, New England Journal of Medicine, to Henry A. Waxman, Ranking Member, House Committee on Energy and Commerce (July 15, 2011).

[13] Letter from Jeanne Ireland, Assistant Commissioner for Legislation, U.S. Food and Drug Administration, to Henry A. Waxman, Ranking Member, House Committee on Energy and Commerce (July 18, 2011).

[14] Letter from Gregory D. Curfman, M.D., Executive Editor, New England Journal of Medicine, to Henry A. Waxman, Ranking Member, House Committee on Energy and Commerce (July 15, 2011).

[15] Letter from Howard Bauchner, M.D., Editor-in-Chief, JAMA and Scientific Publications, to Henry A. Waxman, Ranking Member, House Committee on Energy and Commerce (July 18, 2011).

[16] Letter from Gregory D. Curfman, M.D., Executive Editor, New England Journal of Medicine, to Henry A. Waxman, Ranking Member, House Committee on Energy and Commerce (July 15, 2011).

[17] Letter from Rita F. Redburg, M.D., MSc., Chief Editor, Archives of Internal Medicine, to Henry A. Waxman, Ranking Member, House Committee on Energy and Commerce (July 15, 2011).

[18] Letter from Howard Bauchner, M.D., Editor-in-Chief, JAMA and Scientific Publications, to Henry A. Waxman, Ranking Member, House Committee on Energy and Commerce (July 18, 2011).

[19] Letter from Howard Bauchner, M.D., Editor-in-Chief, JAMA and Scientific Publications, to Henry A. Waxman, Ranking Member, House Committee on Energy and Commerce (July 18, 2011); Letter from Gregory D. Curfman, M.D., Executive Editor, New England Journal of Medicine, to Henry A. Waxman, Ranking Member, House Committee on Energy and Commerce (July 15, 2011); Letter from Rita F. Redburg, M.D., MSc., Chief Editor,

B. CHI Study Findings

The study by the California Healthcare Institute examined both drug and device approvals. The findings on device approvals were based on FDA's device approval databases and other data sources. This study concluded that device approval times had increased, that approval times in the European Union were faster than those in the U.S., and that "inefficiency at the FDA has resulted in American inventions being made available to patients and physicians in other countries first . . . [and] has pushed jobs and revenues offshore."[20]

Reviewers identified numerous problems with this study, including:

- The paper "reflects little or no understanding of the complexity of medical devices and the sometimes unpredictable adverse health consequences of seemingly minor changes in design."[21]

- The report "is written exclusively from the business perspective and does not address the important medical or public health dimensions of medical devices."[22]

- The use of an "'apples to oranges' comparison [between U.S. and E.U. review times] that does not take into account the difference in the review standards between the two regulatory regimes."[23]

- The text of the report fails to mention that "about 80 percent of the devices [FDA] review[s] premarket, come on the market in the United States first as often or more often than in the EU."[24]

Archives of Internal Medicine, to Henry A. Waxman, Ranking Member, House Committee on Energy and Commerce (July 15, 2011).

[20] California Healthcare Institute and the Boston Consulting Group, *Competitiveness and Regulation: The FDA and the Future of America's Biomedical Industry* (Feb. 2011) (online at www.bcg.com/documents/file72060.pdf) (accessed on July 19, 2011).

[21] Letter from Gregory D. Curfman, M.D., Executive Editor, New England Journal of Medicine, to Henry A. Waxman, Ranking Member, House Committee on Energy and Commerce (July 15, 2011).

[22] *Id.*

[23] Letter from Jeanne Ireland, Assistant Commissioner for Legislation, U.S. Food and Drug Administration, to Henry A. Waxman, Ranking Member, House Committee on Energy and Commerce (July 18, 2011).

[24] Letter from Jeanne Ireland, Assistant Commissioner for Legislation, U.S. Food and Drug Administration, to Henry A. Waxman, Ranking Member, House Committee on Energy and Commerce (July 18, 2011).

- The study "assumes the faster the FDA approves a device, the better. That may be true from the perspective of a medical device company, but it is not true from the perspective of patients."[25]

Dr. Redberg determined that "[d]ue to the methodological limitations and faulty assumptions described above, it is my opinion that this study would not be accepted in a peer-reviewed medical journal."[26] Dr. Curfman concluded: "[T]hese two reports together do a serious disservice to medicine and the health of the public."[27]

[25] Letter from Rita F. Redburg, M.D., MSc., Chief Editor, Archives of Internal Medicine, to Henry A. Waxman, Ranking Member, House Committee on Energy and Commerce (July 17, 2011).

[26] *Id.*

[27] Letter from Gregory D. Curfman, M.D., Executive Editor, New England Journal of Medicine, to Henry A. Waxman, Ranking Member, House Committee on Energy and Commerce (July 15, 2011).