FY 2016

PERFORMANCE REPORT TO CONGRESS

for the

Medical Device User Fee Amendments

Commissioner's Report

I am pleased to present the Food and Drug Administration's (FDA or the Agency) Fiscal Year (FY) 2016 Performance Report to Congress for the Medical Device User Fee Amendments (MDUFA). The enactment of the third authorization of MDUFA in 2012 (MDUFA III) reauthorized medical device user fees for 5 additional years (FY 2013 through FY 2017). This is the fourteenth report on medical device user fee review performance, and the fourth report to reflect the more challenging goals set under MDUFA III.

Reauthorization of the medical device user fee program has helped to expedite the availability of innovative new products to market by boosting the Agency's medical devices regulatory review capacity through hiring new staff. MDUFA III represents a commitment between the U.S. medical device industry and FDA to increase the efficiency of regulatory processes in order to reduce the total time it takes to make decisions on safe and effective medical devices.

FDA's performance continued to be strong during FY 2016, the fourth year of MDUFA III. Preliminary data for performance goals through September 30, 2016, including completed and pending reviews, indicate that FDA has met, or has the potential to meet, all 18 of the performance goals for which FDA received submissions in FY 2016. In FY 2015, FDA is currently exceeding all of 18 performance goals on which actions have been taken. With 73 submissions still pending within the MDUFA III goal date, representing 1 percent of the total cohort, FDA has the potential to meet or exceed all applicable performance goals for FY 2015. The steps FDA is taking to continue to improve predictability, consistency, and transparency in the device review process are listed on FDA's website.[1]

We believe the actions that FDA has taken and plans to take under MDUFA III will have a positive impact on the device review process. These completed and planned actions demonstrate our continued commitment to strengthening our medical device review programs, providing predictable device review processes, and increasing the efficiency with which medical devices are developed and made available to patients.

Robert M. Califf, M.D.
Commissioner of Food and Drugs

[1] www.fda.gov/aboutfda/centersoffices/officeofmedicalproductsandtobacco/cdrh/cdrhreports/ucm239448.htm

Acronyms

BLA – Biologics License Application

CBER – Center for Biologics Evaluation and Research

CDRH – Center for Devices and Radiological Health

CLIA – Clinical Laboratory Improvement Amendments

DICE – Division of Industry and Consumer Education

ELP – Experiential Learning Program

FDA – Food and Drug Administration

FDASIA – Food and Drug Administration Safety and Innovation Act

FY – Fiscal Year (October 1 to September 30)

GMP – Good Manufacturing Practice

IDE – Investigational Device Exemption

IMDRF – International Medical Device Regulators Forum

IR – Interactive Review

MDUFA – Medical Device User Fee Amendments

NSE – Not Substantially Equivalent

PMA – Premarket Approval Application

RCP – Reviewer Certification Program

RTA – Refuse to Accept

SE – Substantially Equivalent

SI – Substantive Interaction

Executive Summary

On July 9, 2012, the President signed into law the Food and Drug Administration Safety and Innovation Act (FDASIA), which included the reauthorization and expansion of the Medical Device User Fee Amendments (MDUFA) for 5 additional years (Fiscal Year (FY) 2013 through FY 2017, referred to as MDUFA III).

This report presents updated data on FDA's success in meeting FY 2015 review performance goals and preliminary data on meeting FY 2016 review performance goals and commitments under MDUFA III as of September 30, 2016.

FY 2015 Performance

As of September 30, 2016, FDA had completed actions in 18 of the 21 goal categories for FY 2015. FDA is currently exceeding all of these 18 performance goals. With 73 submissions still pending within the MDUFA III goal date, representing 1 percent of the total cohort, FDA has the potential to meet or exceed all applicable performance goals for FY 2015. Of the 18 goal categories where an action was taken, 16 will exceed their performance goals and the other 2 goal categories' performances are still pending.

FY 2016 Performance

As of September 30, 2016, preliminary data shows FDA completed actions in 14 of the 21 goal categories for FY 2016. FDA is currently exceeding all 14 performance goals where actions were taken. With 1,982 submissions still pending within the MDUFA III goal date, representing 28 percent of the total cohort, FDA has the potential to meet or exceed all 18 applicable performance goals with completed or pending actions for FY 2016.

MDUFA III Process Improvements

Under MDUFA III, FDA committed to a variety of process improvements. Major process improvement accomplishments during FY 2016 include:

- In FY 2016, the Center for Devices and Radiological Health (CDRH) review staff received training on best practices for interactive review (IR) during the review of 510(k) submissions.
- During FY 2016, CDRH provided 524 learning events that addressed: reviewer training; new scientific technologies; law, regulation, guidance updates; leadership and professional development.

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Introduction

On July 9, 2012, the President signed into law the Food and Drug Administration Safety and Innovation Act (FDASIA), which included the reauthorization and expansion of the Medical Device User Fee Amendments (MDUFA) for 5 additional years (fiscal year (FY) 2013 through FY 2017, referred to as MDUFA III). MDUFA III authorizes the Food and Drug Administration (FDA or the Agency) to collect user fees for the review of medical device premarket applications, reports, and other submissions, and for establishment registration. In return, FDA committed with industry to meet certain shared outcome review performance goals and commitments. [2]

Some of the notable changes to MDUFA III include: FDA's facilitation of earlier, more transparent, and predictable interactions with industry; more rigorous premarket review performance goals; and outcome goals that are shared by both industry and FDA. Additional information on the history of MDUFA I and MDUFA II can be found on FDA's website.[3]

Performance Presented in This Report

In any given year, FDA performance includes reviews of submissions pending from previous fiscal years and submissions received during the current fiscal year. This report presents updated performance information for FY 2015 MDUFA III cohort submissions and preliminary performance for FY 2016 MDUFA III cohort submissions.[4]

The following information refers to FDA performance presented in this report.

- Only performance goals with specific target percentages (e.g., 80 percent) are presented in this report. Information on performance goals without target percentages can be found in the MDUFA III Quarterly Performance Reports located on FDA's website.[5]

- Review performance statistics are based on a fiscal year receipt cohort. Until all submissions in a cohort receive a final decision, or are sufficiently complete for FDA to determine whether the performance goal was met, a preliminary performance assessment is provided for that cohort. The MDUFA III cohort performance for each submission type is therefore subject to change until that cohort is closed.

- FDA MDUFA III decisions for Original Premarket Approval Application (PMAs) and Panel-Track Supplements are placed in six categories: approval, approvable, approvable pending current good manufacturing practice (GMP) inspection, not approvable, acceptance of withdrawal, or denial. The decision categories for 180-day PMA Supplements are approval, approvable, approvable pending current GMP inspection, and not approvable. Decision categories for Real-Time PMA Supplements are approval, approvable, and not approvable. The decisions for 510(k) Submissions are substantially equivalent (SE) or not substantially equivalent (NSE). Decisions for Clinical Laboratory Improvement Amendments (CLIA) Waiver by Applications are withdrawn, approval, or denial. The decision categories for BLAs are complete response

[2] www.fda.gov/downloads/MedicalDevices/NewsEvents/WorkshopsConferences/UCM295454.pdf
[3] www.fda.gov/ForIndustry/UserFees/MedicalDeviceUserFee/ucm20081521.htm
[4] www.fda.gov/ForIndustry/UserFees/MedicalDeviceUserFee/ucm452527.htm
[5] www.fda.gov/ForIndustry/UserFees/MedicalDeviceUserFee/ucm452535.htm

and approval. Biologics License Applications (BLAs) have many application categories: Priority Original, Standard Original, Priority Efficacy Supplements, Standard Efficacy Supplements, Manufacturing Supplements Requiring Prior Approval, Class 1 Original BLA and BLA Efficacy Supplement Resubmissions, and Class 2 Original BLA and BLA Efficacy Supplement Resubmissions.

- The Original PMAs, Panel-Track Supplements, and Premarket Report Applications performance section includes PMAs that are filed for priority review (previously referred to as expedited).

- Submissions that were closed without an FDA MDUFA III decision are not included in the MDUFA III cohort and, therefore, are not included in the statistics used to measure MDUFA III performance. However, the total number of submissions received is noted in the workload tables when the number differs from the number of MDUFA cohort submissions. Examples of this include when applications do not meet the acceptance criteria or are withdrawn by a sponsor.

- As agreed upon with industry, all references to *FDA days* are those calendar days when a submission is considered to be under review by FDA. FDA days begin on the date of receipt of the submission or of the amendment to the submission that enables the submission to be accepted or filed.

- Review-time goals are defined as the time period identified in number of calendar days or FDA days for when individual submissions are to have an interaction or be acted on. An on-time review indicates that action was completed within the number of days specified by the review-time goal.

- Performance is based on the number of submissions reviewed *on time* (acted on within goal) or *overdue* (acted on past the performance goal or pending past the performance goal) and is presented as on-time performance percentage.

- The on-time performance percentage refers to the percent of reviews where FDA met a review-time goal for a given type of submission. FDA's on-time performance percentage for a given type of submission is used to determine whether FDA met or exceeded the MDUFA III performance goals.

- When determining FDA performance, calculated percentages are rounded to the nearest whole number up to 99 percent. Percentages above 99 percent, but below 100 percent, are always rounded down to 99 percent.

- *Filing status* refers to whether the review committee has made a determination that the application is administratively and scientifically complete and contains adequate content, presentation, and organization of information.

- MDUFA review-time goals range from 60 days to 330 days. To meet MDUFA review performance goals, FDA must meet the various review-time goals from 80 to 95 percent of the time, depending on the particular goal.

- Preliminary performance for FY 2016 submissions is shown as the percentage of submissions reviewed on time as of September 30, 2016, excluding any that have not

yet reached their due date. The highest possible percent of reviews that may be completed on time is shown as the *highest possible performance*.

- Unless otherwise noted, all performance data are as of September 30, 2016.

Submission Types Included in This Report

- **PMA** - An application providing scientific and medical data to demonstrate a reasonable assurance that a Class III medical device is safe and effective for its intended use.
- **Premarket Report for Reprocessed Single Use Devices** - A type of premarket application required for high-risk devices originally approved for a single use (that is, use on a single patient during a single procedure) that a manufacturer has reprocessed for additional use.
- **Panel-Track PMA Supplement** - A supplemental application to an approved PMA or premarket report that requests approval of a significant change in design or performance of the device, or a new indication for use of the device, and for which clinical data are generally necessary to provide a reasonable assurance of safety and effectiveness.
- **180-Day PMA Supplement** - A supplemental application to an approved PMA or premarket report that typically requests approval of a significant change in aspects of a device, such as its design, specifications, or labeling, when demonstration of reasonable assurance of safety and effectiveness either does not require new clinical data or requires only limited clinical data.
- **Real-Time PMA Supplement** - A supplement to an approved premarket application or premarket report that requests approval of a minor change to the device software, sterilization, or labeling, and for which the applicant has requested and the agency has granted a meeting or similar forum to jointly review and determine the status of the supplement.
- **Premarket Notification (510(k))** - A premarket submission made to FDA to demonstrate that a device to be marketed is at least as safe and effective, that is, substantially equivalent, to a legally marketed device that is not subject to the PMA review process. Sponsors must compare their device to one or more similar legally marketed devices and support their substantial equivalency claims.
- **CLIA Waiver** - A categorization issued by FDA allowing a laboratory test to be performed by laboratories with a CLIA Certificate of Waiver.
- **CLIA Waiver by Application** – An application providing data to demonstrate a laboratory test is so simple and accurate as to render the likelihood of erroneous results by the user negligible
- **Dual 510(k) and CLIA Waiver by Application** – a single premarket submission to demonstrate that a laboratory test is substantially equivalent to a legally marketed device that is not subject to the PMA review process and is so simple and accurate as to render the likelihood of erroneous results by the user negligible. OR - A single premarket submission meeting both the definitions of a premarket notification 510(k) and a CLIA waiver by application
- ***De Novo* Classification process** – There are two options for de novo classification for new devices of low to moderate risk that are not substantially equivalent to an existing class I or class II device and for which general or general and special controls are sufficient to ensure a reasonable assurance of safety and effectiveness.
    - Option 1: Any sponsor who receives an NSE determination in response to a 510(k) submission may, within 30 days of receipt of the NSE determination, submit a de novo request for FDA to make a risk-based evaluation for classification of the device into Class I or II.
    - Option 2: Any sponsor who determines that there is no legally marketed device upon which to base a determination of substantial equivalence may submit a de novo request for FDA to make a risk-based classification of the device into Class I or II, without first submitting a 510(k) and receiving an NSE determination.
- **BLA** - An application submitted when an applicant wishes to obtain marketing approval for a biological product. A priority BLA is a product that would, if approved, involve a significant improvement in the safety or effectiveness of the treatment, diagnosis, or prevention of a serious or life-threatening disease. A non-priority BLA is considered a standard BLA.
- **BLA Supplement** - A supplemental application to an approved BLA requesting approval of a change to a licensed biological product. When the change has the substantial potential to affect the safety or effectiveness of the product, FDA approval is required prior to product distribution. A supplement to an approved application proposing to make one or more changes to a product, it's manufacturing, or its labeling that necessitates the submission of data from significant studies is considered an Efficacy Supplement.
- **BLA Resubmission and BLA Efficacy Supplement Resubmission** - A resubmission used to respond to a letter from FDA indicating that the information was deficient. For Class 1 resubmissions, the new information may include matters related to product labeling, safety updates, and other minor clarifying information. For Class 2 resubmissions, the new information could warrant presentation to an advisory committee or a re-inspection of the manufacturer's device establishment.
- **Investigational Device Exemption (IDE)**: A device, including a transitional device that is the object of an investigation. IDE refers to the regulations under 21 CFR 812. An approved IDE means that the Institutional Review Board (and FDA for significant risk devices) has approved the sponsor's study application and all the requirements under 21 CFR 812 are met.

Sources:

BLAs – www.fda.gov/Drugs/InformationOnDrugs/ucm079436.htm

PMAs – www.fda.gov/MedicalDevices/DeviceRegulationandGuidance/HowtoMarketYourDevice/PremarketSubmissions/PremarketApprovalPMA/default.htm

MDUFA III Performance Goals and Commitments

The following tables present 21 goal timelines and the target percentage of submissions required to meet the goal for all the various submission types for each year from FY 2013 through FY 2017. Many of the performance goal targets progressively increase to account for new hires being brought on board and trained during the first 4 years of MDUFA III.

Performance Goals and Commitment Targets

Submission Type	Review-Time Goal	FY 13	FY 14	FY 15	FY 16	FY 17
PMAs, Panel-Track PMA Supplements, and Premarket Reports						
Substantive Interaction for PMA filed submissions	90 calendar days	65%	75%	85%	95%	95%
Decision for PMAs filed submissions with no Advisory Committee input	180 FDA days	70%	80%	80%	90%	90%
Decision for PMAs filed submissions with Advisory Committee input	320 FDA days	50%	70%	80%	80%	90%
180-Day PMA Supplements						
Substantive Interaction for 180-Day Supplements	90 calendar days	65%	75%	85%	95%	95%
Decision for 180-Day Supplements	180 FDA days	85%	90%	90%	95%	95%
Real-Time PMA Supplements						
Decision for Real-Time Supplements	90 FDA days	90%	90%	95%	95%	95%
510(k) Premarket Notifications						
Substantive Interaction for 510(k) Submissions	60 calendar days	65%	75%	85%	95%	95%
Decision for 510(k) Submissions	90 FDA days	91%	93%	95%	95%	95%
CLIA Waiver by Applications						
Substantive Interaction for CLIA Waiver by Applications	90 calendar days	95%	95%	95%	95%	95%
Decision for CLIA Waiver by Applications with no Advisory Committee input	180 FDA days	95%	95%	95%	95%	95%
Decision for CLIA Waiver by Applications with Advisory Committee input	330 FDA days	95%	95%	95%	95%	95%
Dual 510(k) and CLIA Waivers by Application Submissions						
Substantive Interaction for Dual 510(k) and CLIA Waiver by Applications	90 calendar days	95%	95%	95%	95%	95%
Decision for Dual 510(k) and CLIA Waiver by Applications with no Advisory Committee input	210 FDA days	90%	90%	90%	90%	90%
Decision for Dual 510(k) and CLIA Waiver by Applications with Advisory Committee input	330 FDA days	95%	95%	95%	95%	95%

Performance Goals and Commitment Targets (continued)

Submission Type	Review-Time Goal	FY 13	FY 14	FY 15	FY 16	FY 17
BLAs						
Priority Original BLAs	6 calendar months	90%	90%	90%	90%	90%
Standard Original BLAs	10 calendar months	90%	90%	90%	90%	90%
BLA Manufacturing Supplements Requiring Prior Approval	4 calendar months	90%	90%	90%	90%	90%
Priority BLA Efficacy Supplements	6 calendar months	90%	90%	90%	90%	90%
Standard BLA Efficacy Supplements	10 calendar months	90%	90%	90%	90%	90%
Class 1 Original BLA and BLA Efficacy Supplement Resubmissions	2 calendar months	90%	90%	90%	90%	90%
Class 2 Original BLA and BLA Efficacy Supplement Resubmissions	6 calendar months	90%	90%	90%	90%	90%

FY 2015 Updated Review Performance

The table below presents updated FY 2015 MDUFA performance. Further details can be found in the MDUFA III Quarterly Performance Reports posted on FDA's website.[6] Updates on previous years' review performance are provided in Appendix C.

- *Review Progress* presents the number of submissions that had actions taken before the end of FY 2016, plus submissions pending but overdue as of September 30, 2016, whether or not they met the MDUFA goal date.
- *Current Performance* presents the percentage of actions that FDA completed within the review-time goal. Performance for submission types that are meeting or exceeding the goal as of September 30, 2016, is shown in bold text. Of the 21 goal categories, 18 received submissions for the FY 2015 cohort. Actions were taken in all 18 of these categories, and FDA is currently exceeding all 18 performance goals, with the potential to meet or exceed all 18 performance goals. Appendix A contains additional information on the completed reviews.
- *Highest Possible Performance* represents the scenario where all non-overdue pending submissions are reviewed on time.

As of September 30, 2016, FDA had completed actions in 18 of the 21 goal categories. FDA is currently exceeding all of these 18 performance goals. With 73 submissions still pending within the MDUFA III goal date, representing 1 percent of the total cohort, FDA has the potential to meet or exceed all applicable performance goals for FY 2015. Of the 18 categories where an action was taken, 16 will definitely exceed their performance goals and the other 2 categories' performances are still pending.

FY 2015 Updated Review Performance Percentages

Submission Type	Review Progress	Performance Goal	Current Performance	Highest Possible Performance
PMA, Panel-Track PMA Supplements, and Premarket Reports				
Substantive Interaction	71 of 71 complete	85%	**94%**	94%
Decision with no Advisory Committee input	60 of 66 complete	80%	**97%**	97%
Decision with Advisory Committee input	4 of 5 complete	80%	**100%**	100%
180-Day PMA Supplements				
Substantive Interaction	197 of 198 complete	85%	**94%**	94%
Decision	184 of 196 complete	90%	**100%**	100%
Real-Time PMA Supplements				
Decision	325 of 325	95%	**98%**	98%
510(k) Premarket Notifications				
Substantive Interaction	3,526 of 3,529 complete	85%	**98%**	98%
Decision	3,151 of 3,199 complete	95%	**97%**	97%
CLIA Waiver by Applications				

[6] www.fda.gov/ForIndustry/UserFees/MedicalDeviceUserFee/ucm452527.htm

Substantive Interaction	11 of 11 complete	95%	**100%**	100%
Decision with no Advisory Committee input	10 of 11 complete	95%	**100%**	100%
Decision with Advisory Committee input	0 of 0 complete	95%	--*	**--**

FY 2015 Updated Review Performance Percentages (continued)

Submission Type	Review Progress	Goal Percentage	Current Performance	Highest Possible Performance
Dual 510(k) and CLIA Waiver by Applications				
Substantive Interaction	3 of 3 complete	95%	**100%**	100%
Decision with no Advisory Committee input	2 of 3 complete	90%	**100%**	100%
Decision with Advisory Committee input	0 of 0 complete	95%	--*	**--**
BLAs				
Priority Original BLAs	2 of 2 complete	90%	**100%**	100%
Standard Original BLAs	2 of 2 complete	90%	**100%**	100%
BLA Manufacturing Supplements Requiring Prior Approval	19 of 19 complete	90%	**100%**	100%
Priority BLA Efficacy Supplements	0 of 0 complete	90%	--*	--
Standard BLA Efficacy Supplements	1 of 1 complete	90%	**100%**	100%
Class 1 Original BLA and BLA Efficacy Supplement Resubmissions	1 of 1 complete	90%	**100%**	100%
Class 2 Original BLA and BLA Efficacy Supplement Resubmissions	16 of 16 complete	90%	**100%**	100%

* No actions were taken in FY 2015, so no performance can be reported.

FY 2016 Preliminary Review Performance

The table below presents preliminary FY 2016 MDUFA performance. Further details can be found in the MDUFA III Quarterly Performance Reports posted on FDA's website.[7]

- *Review Progress* presents the number of submissions that had actions taken in FY 2016 plus submissions pending but overdue as of September 30, 2016, whether or not they met the MDUFA goal date.
- *Current Performance* presents the percentage of actions that FDA completed within the review-time goal. Performance for submission types that are meeting or exceeding the goal as of September 30, 2016, is shown in bold text. Of the 21 goal categories, 18 received submissions in FY 2016. Actions were taken in 14 of these categories, and FDA is currently exceeding all 14 performance goals, with the potential to meet or exceed all 18 performance goals. Appendix B contains additional information on the completed reviews.
- *Highest Possible Performance* represents the scenario where all non-overdue pending submissions are reviewed on time.

As of September 30, 2016, preliminary data shows FDA completed actions in 14 of the 21 goal categories. FDA is currently exceeding all 14 performance goals where actions were taken. With 1,982 submissions still pending within the MDUFA III goal date, representing 28 percent of the total cohort, FDA has the potential to meet or exceed all 18 applicable performance goals with completed or pending actions for FY 2016.

FY 2016 Preliminary Review Performance Percentages

Submission Type	Review Progress	Performance Goal	Current Performance	Highest Possible Performance
PMA, Panel-Track PMA Supplements, and Premarket Reports				
Substantive Interaction	46 of 67 complete	95%	**98%**	99%
Decision with no Advisory Committee input	24 of 66 complete	90%	**100%**	100%
Decision with Advisory Committee input	0 of 1 complete	80%	--*	100%
180-Day PMA Supplements				
Substantive Interaction	174 of 209 complete	95%	**98%**	98%
Decision	106 of 204 complete	95%	**98%**	99%
Real-Time PMA Supplements				
Decision	268 of 324 complete	95%	**99%**	99%
510(k) Premarket Notifications				
Substantive Interaction	2,747 of 3,104 complete	95%	**96%**	96%
Decision	1,721 of 3,030 complete	95%	**98%**	99%
CLIA Waiver by Applications				
Substantive Interaction	3 of 9 complete	95%	**100%**	100%
Decision with no Advisory Committee input	2 of 9 complete	95%	**100%**	100%
Decision with Advisory Committee input	0 of 0 complete	95%	--*	--

[7] www.fda.gov/ForIndustry/UserFees/MedicalDeviceUserFee/ucm452535.htm

FY 2016 Preliminary Review Performance Percentages (continued)

Submission Type	Review Progress	Goal Percentage	Current Performance	Highest Possible Performance
Dual 510(k) and CLIA Waiver by Applications				
Substantive Interaction	1 of 1 complete	95%	**100%**	100%
Decision with no Advisory Committee input	1 of 1 complete	90%	**100%**	100%
Decision with Advisory Committee input	0 of 0 complete	95%	--*	**--**
BLAs				
Priority Original BLAs	1 of 1 complete	90%	**100%**	100%
Standard Original BLAs	0 of 26 complete	90%	--*	100%
BLA Manufacturing Supplements Requiring Prior Approval	35 of 46 complete	90%	**100%**	100%
Priority BLA Efficacy Supplements	0 of 0 complete	90%	--*	--
Standard BLA Efficacy Supplements	0 of 1 complete	90%	**_***	100%
Class 1 Original BLA and BLA Efficacy Supplement Resubmissions	0 of 2 complete	90%	--*	100%
Class 2 Original BLA and BLA Efficacy Supplement Resubmissions	8 of 18 complete	90%	**100%**	100%

* No actions were taken in FY 2016, so no performance can be reported.

MDUFA Review Workloads: FY 2011 through FY 2016

The table below compares the review workloads for the period FY 2011 to FY 2016. Workload in FY 2016 was equal to or greater than the previous 5-year average for 9 of the 13 workload categories where submissions were received in FY 2016 and had data to calculate a 5-year average. Submission types with reduced workloads include 510(k) Premarket Notifications, Standard BLA Efficacy Supplements, and Class 1 original BLA and BLA Efficacy Supplement Resubmissions. In comparison, submission types with increased workloads include PMAs, Panel-Track PMA Supplements, and Premarket Reports, 180 Day PMA Supplements, Real-Time PMA Supplements, Standard Original BLAs, BLA Manufacturing Supplements Requiring Prior Approval, and Class 2 Original BLA and BLA Efficacy Supplement Resubmissions.

Workload by Submission Type

Submission Type	FY11	FY 12	FY 13	FY 14	FY 15	FY 16	FY 11 to FY 15 5-Year Average	FY 16 Compared to 5-Year Average
PMAs, Panel-Track PMA Supplements, and Premarket Reports*								
PMAs, Panel-Track PMA Supplements, and Premarket Reports – Total Accepted	52	38	45	49	73	71	51	+ 39%
PMAs, Panel-Track PMA Supplements, and Premarket Reports – MDUFA Cohort	52	38	45	48	71	67	50	+ 34%
180-Day PMA Supplements								
180-Day PMA Supplements – Total Accepted	156	223	188	179	203	213	189	+ 13%
180-Day PMA Supplements – MDUFA Cohort	139	203	177	172	196	204	177	+ 15%
Real-Time PMA Supplements								
Real-Time PMA Supplements – Total Accepted	246	308	311	341	340	329	309	+ 6%
Real-Time PMA Supplements – MDUFA Cohort	236	297	301	333	325	324	298	+ 9%
510(k) Premarket Notifications								
510(k) Premarket Notifications – Total Accepted§	3,877	4,045	3,913	3,668	3,625	3,204	3,825	- 16%
510(k) Premarket Notifications – MDUFA Cohort	3,231	3,392	3,383	3,196	3,199	3,030	3,280	- 8%
***De Novo* Requests**								
De Novo Requests†	--	--	48	42	60	54	-- ‡	--
CLIA Waiver by Applications								
CLIA Waiver by Applications – Receipts†	--	--	3	14	11	9	-- ‡	--
Dual 510(k) and CLIA Waiver by Applications								
Dual 510(k) and CLIA Waiver by Applications – Receipts†	--	--	0	1	3	1	-- ‡	--

* New reporting requirement combines Original PMAs and Expedited PMAs and represents the receipt cohort.
† Total Receipts and MDUFA cohort are equal.
‡ Due to changing reporting requirements, no 5-year average is available.
§ Submissions received on or before September 30, 2016, but that are accepted after this date will increase the counts of accepted submissions and affect the workload comparisons. The numbers of accepted submissions for FYs 2015 and 2016 are likely to increase.

Workload by Submission Type (continued)

Submission Type	FY 11	FY 12	FY 13	FY 14	FY 15	FY 16	FY 11 to FY 15 5-Year Average	FY 16 Compared to 5-Year Average
BLAs*								
Priority Original BLAs*	0	0	0	0	2	1	0	--
Standard Original BLAs*	1	13	9	10‡	2	26	7	+ 271%
BLA Manufacturing Supplements Requiring Prior Approval*	37	28	20	6	19	46	22	+109%
Priority BLA Efficacy Supplements*	0	0	0	0	0	0	0	-- †
Standard BLA Efficacy Supplements*	1	1	0	17	1	1	4	- 75%
Class 1 Original BLA and BLA Efficacy Supplement Resubmissions*	0	5	10	6	1	2	4	- 50%
Class 2 Original BLA and BLA Efficacy Supplement Resubmissions*	4	1	0	2	16	28	4	+ 600%

* Total Receipts and MDUFA cohort are equal.
† The percent change cannot be calculated as no submissions were received in FY 2016 or 5 year average is zero.
‡The FY 2014 report showed 12, but two were placeholders for lot release

Report on Additional MDUFA III Performance Commitments

Under MDUFA III, FDA made several commitments related to the medical device review process in addition to performance goals. These commitments include maintaining performance in areas not covered by explicit performance goals, applying the interactive review program, using informal and formal meetings to advance medical device reviews, providing quarterly reports on performance, continuing to focus on reviewer training, and developing guidance documents. Additional information on these commitments is included in Appendix E.

Total Time to Final Decision

FDA committed to report the average total time to final decision once decisions were made for 95 percent of the PMA cohort and 99 percent of the 510(k) cohort. The PMA and 510(k) cohort calculations are based on the methodology prescribed in the MDUFA III commitment letter. The average total time to decision for the FY 2013 PMA cohort is 350 days. The average total time for the FY 2014 cohort is 330 days. At this point in time, the threshold for closure of the FY 2015 and FY 2016 PMA cohorts has not been met. The average total time to decision for the FY 2013 510(k) cohort is 124 total days. The average total time to decision for the FY 2014 510(k) cohort is 125 days. FDA has not met the decision threshold for the FY 2015 and FY 2016 510(k) cohorts. Once the required percentage of each open cohort has been reached, FDA will report the average time to final decision in future reports.

MDUFA III Shared Outcome Goal
Total Time to Decision (Days)

Submission Type	FY 13	FY 14	FY 15	FY 16	FY 17
PMAs					
Performance Goal	395	395	390	390	385
Current Performance	350	330	*	*	--
510(k)					
Performance Goal	135	135	130	130	124
Current Performance	124	125	*	*	--

* As of September 30, 2016, FY 2015 and FY 2016 cohorts have not met the decision threshold to calculate performance

Training

As part of the MDUFA III agreement, CDRH committed to applying user fee revenue to supplement: management training for Branch Chiefs and Division Directors, MDUFA III training for all staff, a Reviewer Certification Program (RCP) for new CDRH reviewers, and specialized training to provide continuous learning for all staff. During FY 2016, CDRH provided 524 learning events that addressed: reviewer training; new scientific technologies; law, regulation, and guidance updates; and leadership and professional development. In addition, CDRH enhanced the RCP curriculum training addressing Regulatory Basics, Standards, and the Medical Device Ecosystem. CDRH also developed and delivered a Patient Reported Outcome

(PRO) and a Patient Preference Information (PPI) science training curriculum for staff. In FY 2016, a total of 114 CDRH review staff participated in RCP training. CDRH continued to expand the Experiential Learning Program (ELP), through which academia, industry, and clinical facilities host FDA review staff to provide real-world experience with regulated products. In FY 2016, 410 medical device review staff participated in ELP, visiting a total of 49 sites. CDRH also hosted four Vendor Days to provide staff with an opportunity to interact with industry and gain experience with regulated products. More information on CDRH training is available on the FDA website.[8]

The Center for Biologics Evaluation and Research (CBER) provided training for medical device reviewers by providing a three-day Medical Device Reviewer Training Course. Additionally, the three-session training on 510(k) review developed and presented in 2015 was provided on-line thus completing the training of all reviewers involved in 510(k) reviews. Seven Device Review Update sessions were held covering topics including labeling for 510(k) devices, the Expanded Access Program, Q-Submissions, Interactive Review, the Final Rule on use of symbols in labeling for medical devices, Comparison of INDs to IDEs, and guidance updates.

[8] www.fda.gov/medicaldevices/deviceregulationandguidance/overview/medicaldeviceuserfeeandmodernizationactmdufma/ucm109210.htm#

Process Improvement Accomplishments

FDA's accomplishments for the process improvement commitments agreed to by FDA for MDUFA III are summarized below. Please see Appendix E for details about the process improvement commitments.

Performance Area	Process Improvement Agreements	MDUFA III Accomplishments
Submission Acceptance Criteria	Implement revised submission acceptance criteria.	• 510(k) Refuse to Accept (RTA) policy guidance update issued August 4, 2015 and implemented on October 1, 2015. • Link: www.fda.gov/ucm/groups/fdagov-public/@fdagov-meddev-gen/documents/document/ucm315014.pdf • The RTA criteria for 510(k) and PMA is a checklist of objective criteria for screening out submissions that lack basic requirements. If a submission is refused for acceptance, the review clock does not start until FDA receives a revised submission that meets the established acceptance criteria. This approach provides a more efficient strategy for ensuring that safe and effective medical devices are cleared for marketing as quickly as possible. • Link: www.fda.gov/downloads/medicaldevices/deviceregulationandguidance/guidancedocuments/ucm313794.pdf
Interactive Review	Continue to incorporate an interactive review process to provide for, and encourage, informal communication between FDA and applicants to facilitate timely completion of the review process based on accurate and complete information.	• In FY 2016, CDRH and CBER review staff received training on best practices for interactive review during the review of 510(k) submissions. The training focused on how and when to use interactive review during each phase of the 510(k) review process. The training introduced the new policies and practices on the use of interactive review during the RTA review. The training provided guidelines on how staff can use their discretion to determine whether to work interactively during the RTA review to resolve issues efficiently rather than issuing an RTA decision and discussed the suggested time frame to allow sponsors to respond. Staff was also encouraged to utilize interactive review during the pre-Substantive Interaction (SI) review phase. The training discussed examples of the types of questions that should be communicated during the pre-Substantive Interaction window, such as requesting information to ensure the complete understanding of the device. Staff was given instructions on the procedures for requesting information interactively and guidelines on the timing of requests. The training also focused on appropriate documentation of Interactive Review (IR) for the administrative record. The training was intended to create a more consistent approach to the use of IR. • Final guidance was issued in April 2014 ("Types of Communication during the Review of Medical Device Submissions") and FDA has implemented process and policy improvements consistent with the interactive review section of the MDUFA III commitment letter. • Link: www.fda.gov/downloads/medicaldevices/deviceregulationandguidance/guidancedocuments/ucm341948.pdf

Performance Area	Process Improvement Agreements	MDUFA III Accomplishments
Guidance Document Development	Apply user fees (as resources permit) to improve the process of developing, reviewing, tracking, issuing, and updating guidance documents.	• CDRH FY 2016 Proposed Guidance Development as well as a listing of final guidance documents for retrospective review can be found at the following link: http://www.fda.gov/MedicalDevices/DeviceRegulationandGuidance/GuidanceDocuments/ucm467223.htm • CDRH has also developed "leapfrog" guidances to provide initial recommendations regarding the type of information that would be appropriate in the review of emerging technologies. These guidances seek early stakeholder feedback prior to publication of the draft guidance. In FY 2016, CDRH updated or issued a number of leapfrog guidances, including: "Premarket Studies of Implantable Minimally Invasive Glaucoma Surgical (MIGS) Devices" (http://www.fda.gov/ucm/groups/fdagov-public/@fdagov-meddev-gen/documents/document/ucm433165.pdf); "Radiation Biodosimetry Devices" (http://www.fda.gov/downloads/MedicalDevices/DeviceRegulationandGuidance/GuidanceDocuments/UCM427866.pdf); "Clinical Considerations for Investigational Device Exemptions (IDEs) for Neurological Devices Targeting Disease Progression and Clinical Outcomes" (www.fda.gov/ucm/groups/fdagov-public/@fdagov-meddev-gen/documents/document/ucm489111.pdf) and "Medical Devices and Clinical Trial Design for the Treatment or Improvement in the Appearance of Fungally-Infected Nails" (www.fda.gov/downloads/MedicalDevices/DeviceRegulationandGuidance/GuidanceDocuments/UCM431312.pdf).
Third Party Review	Support the third party review program and to work with interested parties to strengthen and improve the current program (as resources permit) while also establishing new procedures to improve transparency.	• The number of Third Party submissions decreased slightly from 85 in FY 2015 to 80 in FY 2016. The median FDA review time for closed submissions that have been reviewed by a Third Party remained consistent from 26 days in FY 2015 and 26.5 days in FY 2016.

Performance Area	Process Improvement Agreements	MDUFA III Accomplishments
Patient Safety and Risk Tolerance	Fully implement final guidance on the factors to consider when making benefit-risk determinations in medical device premarket review.	• FDA issued draft guidance in July 2014 on 'Benefit-Risk Factors to Consider When Determining Substantial Equivalence in Premarket Notifications [510(k)] with Different Technological Characteristics' • Link: www.fda.gov/MedicalDevices/DeviceRegulationandGuidance/GuidanceDocuments/ucm282958.htm • FDA issued final guidance in April 2015 on "Balancing Premarket and Postmarket Data Collection for Devices Subject to Premarket Approval." • Link: www.fda.gov/downloads/medicaldevices/deviceregulationandguidance/guidancedocuments/ucm393994.pdf://www.fda.gov/downloads/medicaldevices/deviceregulationandguidance/guidancedocuments/ucm393994.pdf • FDA issued draft guidance in June 2015 on 'Factors to Consider When Making Benefit-Risk Determinations for Medical Device Investigational Device Exemptions (IDEs) • Link: www.fda.gov/ucm/groups/fdagov-public/@fdagov-meddev-gen/documents/document/ucm451440.pdf • FDA issued draft guidance in May 2015 on 'Patient Preference Information – Submission, Review in PMAs, HDE Application and *De Novo* Requests, and Inclusion in Device Labeling' • Link: www.fda.gov/ucm/groups/fdagov-public/@fdagov-meddev-gen/documents/document/ucm446680.pdf • CDRH launched the Patient Engagement Advisory Committee in September 2015 as part of the Patient Preference Initiative • Link: www.fda.gov/AdvisoryCommittees/CommitteesMeetingMaterials/PatientEngagementAdvisoryCommittee/default.htm
Low Risk Medical Device Exemptions	By the end of FY 2015, FDA intends to issue a final guidance on exemption criteria from premarket notification for low risk medical devices.	• The draft guidance "Intent to Exempt Certain Class II and Class I Reserved Medical Devices from Premarket Notification Requirements" issued and was announced in the Federal Register on August 1, 2014. The final guidance issued on July 1, 2015, with a revision on August 14, 2015. The guidance is final and being implemented at this time. • Link: www.fda.gov/ucm/groups/fdagov-public/@fdagov-meddev-gen/documents/document/ucm407292.pdf • Exemptions through the regulatory process may require a panel meeting, rulemaking, or issuance of administrative order.
Emerging Diagnostics	FDA will work with industry to develop a transitional In Vitro Diagnostics approach for the regulation of emerging diagnostics.	• CDRH held a series of meetings with industry regarding emerging diagnostics. At CDRH's suggestion, Industry developed a proposal that applies the principles included in the CDRH guidance "Balancing Premarket and Postmarket Data Collection for Devices Subject to Premarket Approval" to both PMAs and de novo applications for emerging diagnostics. Using Industry's proposal as a guide, FDA agreed to pilot four emerging diagnostics proposed by industry (1 in each IVD division); industry submitted a list of three proposals and FDA confirmed they would be accepted for the pilot. One proposal was subsequently withdrawn by the sponsor prior to any submission. Two were the subject of Pre-Submission meetings with FDA but never piloted in a marketing application.

Performance Area	Process Improvement Agreements	MDUFA III Accomplishments

Independent Assessment of the Premarket Review Process	Participate, with the device industry, in a comprehensive assessment of the process for the review of device applications.	• A third party consulting firm assessed the Devices Program's review process, management systems, IT infrastructure, workload management tools, reviewer training programs and staff turnover.
		• CDRH's Plan of Action was released in June 2014.
		• Link: www.fda.gov/downloads/medicaldevices/deviceregulationandguidance/overview/mdufaiii/ucm400674.pdf
		• The Final Report on Findings and Recommendations, released in June 2014, affirms that the Devices Program is on a path to meeting many of the challenges that were flagged in the months leading up to the enactment of MDUFA III, including such topics as sponsor communication, IT infrastructure, reviewer training, reviewer attrition, and submission quality.
		• Final report link: www.fda.gov/downloads/medicaldevices/deviceregulationandguidance/overview/mdufaiii/ucm400676.pdf
		• Phase 2 of this contract was awarded in July 2014.
		• CDRH released its final Plan of Action on December 2014 www.fda.gov/downloads/MedicalDevices/DeviceRegulationandGuidance/Overview/MDUFAIII/UCM426392.pdf
		  • FDA has completed Stage 1 for 7 of the 11 recommendations identified in Booz Allen Hamilton's MDUFA II/III Evaluation, including all 4 projects under the Quality Management recommendation. All Stage 1 actions were met by December 2015.
		  • Resources permitting, FDA will continue to implement Stage 2 actions.

Appendices

Appendix A: FY 2015 Updated Review Performance Details

The following table provides additional performance detail on FY 2015 applications worked on under the MDUFA III performance goals, otherwise known as the MDUFA Cohort [A]. When calculating Current Performance [E], the numerator is the number reviewed On Time [B] divided by Total MDUFA Cohort [A] minus all submissions Pending within Goal [D]. Therefore, Current Performance [E] = [B] / ([A] - [D]).

Highest Possible Performance represents the scenario where all pending applications are reviewed within their goal dates. [F] is calculated by adding all of the reviews Pending within Goal [D] to those already reviewed On Time [B] divided by the Total MDUFA Cohort [A]. Therefore, Highest Possible Performance [F] = ([B] + [D]) / [A].

FY 2015 Updated Review Performance Details

Submission Type	Total MDUFA Cohort [A]	On Time [B]	Overdue [C]	Pending within Goal [D]	Current Performance [E]	Highest Possible Performance [F]
PMA, Panel-Track PMA Supplements, and Premarket Reports						
Substantive Interaction	71	67	4	0	94%	94%
Decision with no Advisory Committee input	66	58	2	6	97%	97%
Decision with Advisory Committee input	5	4	0	1	100%	100%
180-Day PMA Supplements						
Substantive Interaction	198	186	11	1	94%	94%
Decision	196	184	0	12	100%	100%
Real-Time PMA Supplements						
Decision	325	320	5	0	98%	98%
510(k) Premarket Notifications						
Substantive Interaction	3,529	3,441	85	3	98%	98%
Decision	3,199	3,055	96	48	97%	97%
CLIA Waiver by Applications						
Substantive Interaction	11	11	0	0	100%	100%
Decision with no Advisory Committee input	11	10	0	1	100%	100%
Decision with Advisory Committee input	0	0	0	0	--*	--
Dual 510(k) and CLIA Waiver by Applications						
Substantive Interaction	3	3	0	0	100%	100%
Decision with no Advisory Committee input	3	2	0	1	100%	100%
Decision with Advisory Committee input	0	0	0	0	--*	--

* No actions were completed in FY 2015; therefore no performance can be reported.

FY 2015 Updated Review Performance Details (continued)

Submission Type	Total MDUFA Cohort [A]	On Time [B]	Overdue [C]	Pending within Goal [D]	Current Performance [E]	Highest Possible Performance [F]
BLAs						
Priority Original BLAs	2	2	0	0	100%	100%
Standard Original BLAs	2	2	0	0	100%	100%
BLA Manufacturing Supplements Requiring Prior Approval	19	19	0	0	100%	100%
Priority BLA Efficacy Supplements	0	0	0	0	--*	--
Standard BLA Efficacy Supplements	1	1	0	0	100%	100%
Class 1 Original BLA and BLA Efficacy Supplement Resubmissions	1	1	0	0	100%	100%
Class 2 Original BLA and BLA Efficacy Supplement Resubmissions	16	16	0	0	100%	100%

* No actions were completed in FY 2015; therefore no performance can be reported.

Appendix B: FY 2016 Preliminary Review Performance Details

The following table provides additional performance detail on FY 2016 applications worked on under the MDUFA III performance goals, otherwise known as the MDUFA Cohort [A]. When calculating Current Performance [E], the numerator is the number reviewed On Time [B] divided by Total MDUFA Cohort [A] minus all submissions Pending within Goal [D]. Therefore, Current Performance [E] = [B] / ([A] - [D]).

Highest Possible Performance represents the scenario where all pending applications are reviewed within their goal dates. [F] is calculated by adding all of the reviews Pending within Goal [D] to those already reviewed On Time [B] divided by the Total MDUFA Cohort [A]. Therefore, Highest Possible Performance [F] = ([B] + [D]) / [A].

FY 2016 Preliminary Review Performance Details

Submission Type	Total MDUFA Cohort [A]	On Time [B]	Overdue [C]	Pending within Goal [D]	Current Performance [E]	Highest Possible Performance [F]
PMA, Panel-Track PMA Supplements, and Premarket Reports						
Substantive Interaction	67	45	1	21	98%	99%
Decision with no Advisory Committee input	66	24	0	42	100%	100%
Decision with Advisory Committee input	1	0	0	1	--*	100%
180-Day PMA Supplements						
Substantive Interaction	209	170	4	35	98%	98%
Decision	204	104	2	98	98%	99%
Real-Time PMA Supplements						
Decision	324	267	1	56	99%	99%
510(k) Premarket Notifications						
Substantive Interaction	3,104	2,647	100	357	96%	97%
Decision	3,030	1,680	41	1,309	98%	99%
CLIA Waiver by Applications						
Substantive Interaction	9	3	0	6	100%	100%
Decision with no Advisory Committee input	9	2	0	7	100%	100%
Decision with Advisory Committee input	0	0	0	0	--*	*
Dual 510(k) and CLIA Waiver by Applications						
Substantive Interaction	1	1	0	0	100%	100%
Decision with no Advisory Committee input	1	1	0	0	100%	100%
Decision with Advisory Committee input	0	0	0	0	--*	*

* No actions were completed in FY 2016; therefore no performance can be reported.

FY 2016 Preliminary Review Performance Details (continued)

Submission Type	Total MDUFA Cohort [A]	On Time [B]	Overdue [C]	Pending within Goal [D]	Current Performance [E]	Highest Possible Performance [F]
BLAs						
Priority Original BLAs	1	1	0	0	100%	100%
Standard Original BLAs	26	0	0	26	--*	100%
BLA Manufacturing Supplements Requiring Prior Approval	46	35	0	11	100%	100%
Priority BLA Efficacy Supplements	0	0	0	0	--*	--*
Standard BLA Efficacy Supplements	1	0	0	1	--*	100%
Class 1 Original BLA and BLA Efficacy Supplement Resubmissions	2	0	0	2	--*	100%
Class 2 Original BLA and BLA Efficacy Supplement Resubmissions	28	8	0	20	100%	100%

* No actions were completed in FY 2016; therefore no performance can be reported.

Appendix C: MDUFA III Updates on Previous Years' Review Performance

The following table provides additional performance detail on applications worked on prior to FY 2014, under the MDUFA III performance goals, otherwise known as the MDUFA Cohort [A]. When calculating Current Performance [E], the numerator is the number reviewed On Time [B] divided by Total MDUFA Cohort [A] minus all submissions pending within Goal [D]. Therefore, Current Performance [E] = [B] / ([A] - [D]).

Highest Possible Performance represents the scenario where all pending applications are reviewed within their goal dates. [F] is calculated by adding all of the reviews Pending within Goal [D] to those already reviewed On Time [B] divided by the Total MDUFA Cohort [A]. Therefore, Highest Possible Performance [F] = ([B] + [D]) / [A].

FY 2013 Updated Review Performance Details

Submission Type	Total MDUFA Cohort [A]	On Time [B]	Overdue [C]	Pending within Goal [D]	Current Performance [E]	Highest Possible Performance [F]
PMA, Panel-Track PMA Supplements, and Premarket Reports						
Substantive Interaction	45	41	4	0	91%	91%
Decision with no Advisory Committee input	27†	25	2	0	93%	93%
Decision with Advisory Committee input	18	15	1	2	94%	94%
180-Day PMA Supplements						
Substantive Interaction	184	171	13	0	93%	93%
Decision	177	172	5	0	97%	97%
Real-Time PMA Supplements						
Decision	301	299	2	0	99%	99%
510(k) Premarket Notifications						
Substantive Interaction	3,765	3,537	228	0	94%	94%
Decision	3,383	3,315	68	0	98%	98%
CLIA Waiver by Applications						
Substantive Interaction	3	2	1	0	67%	67%
Decision with no Advisory Committee input	3	3	0	0	100%	100%
Decision with Advisory Committee input	0	0	0	0	--*	--
Dual 510(k) and CLIA Waiver by Applications						
Substantive Interaction	0	0	0	0	--*	--
Decision with no Advisory Committee input	0	0	0	0	--*	--
Decision with Advisory Committee input	0	0	0	0	--*	--

* No submissions were received in FY 2013; therefore no performance can be reported.
† One application was switched from No Advisory Committee input to Advisory Committee input.

FY 2013 Updated Review Performance Details (continued)

Submission Type	Total MDUFA Cohort [A]	On Time [B]	Overdue [C]	Pending within Goal [D]	Current Performance [E]	Highest Possible Performance [F]
BLAs						
Priority Original BLAs	0	0	0	0	--*	--
Standard Original BLAs	9	9	0	0	100%	100%
BLA Manufacturing Supplements Requiring Prior Approval	20	20	0	0	100%	100%
Priority BLA Efficacy Supplements	0	0	0	0	--*	--
Standard BLA Efficacy Supplements	0	0	0	0	--*	--
Class 1 Original BLA and BLA Efficacy Supplement Resubmissions	10	10	0	0	100%	100%
Class 2 Original BLA and BLA Efficacy Supplement Resubmissions	0	0	0	0	--*	--

* No submissions were received in FY 2013; therefore no performance can be reported.

FY 2014 Updated Review Performance Details

Submission Type	Total MDUFA Cohort [A]	On Time [B]	Overdue [C]	Pending within Goal [D]	Current Performance [E]	Highest Possible Performance [F]
PMA, Panel-Track PMA Supplements, and Premarket Reports						
Substantive Interaction	48	46	2	0	96%	96%
Decision with no Advisory Committee input	42	41	1	0	98%	98%
Decision with Advisory Committee input	6	6	0	0	100%	100%
180-Day PMA Supplements						
Substantive Interaction	177	168	9	0	95%	95%
Decision	172	172	0	0	100%	100%
Real-Time PMA Supplements						
Decision	333	329	4	0	99%	99%
510(k) Premarket Notifications						
Substantive Interaction	3,557	3,451	106	0	97%	97%
Decision	3,196	3,137	53	6	98%	98%
CLIA Waiver by Applications						
Substantive Interaction	14	14	0	0	100%	100%
Decision with no Advisory Committee input	14	14	0	0	100%	100%
Decision with Advisory Committee input	0	0	0	0	--*	--
Dual 510(k) and CLIA Waiver by Applications						
Substantive Interaction	1	1	0	0	100%	100%
Decision with no Advisory Committee input	1	1	0	0	100%	100%
Decision with Advisory Committee input	0	0	0	0	--*	--

* No actions were completed in FY 2014; therefore no performance can be reported.

FY 2014 Updated Review Performance Details (continued)

Submission Type	Total MDUFA Cohort [A]	On Time [B]	Overdue [C]	Pending within Goal [D]	Current Performance [E]	Highest Possible Performance [F]
BLAs						
Priority Original BLAs	0	0	0	0	--*	--
Standard Original BLAs	10†	10	0	0	100%	100%
BLA Manufacturing Supplements Requiring Prior Approval	6	6	0	0	100%	100%
Priority BLA Efficacy Supplements	0	0	0	0	--*	--
Standard BLA Efficacy Supplements	17	17	0	0	100%	100%
Class 1 Original BLA and BLA Efficacy Supplement Resubmissions	6	6	0	0	100%	100%
Class 2 Original BLA and BLA Efficacy Supplement Resubmissions	2	2	0	0	100%	100%

* No actions were completed in FY 2014; therefore no performance can be reported.
† The 2014 report showed 12, but two were placeholders for lot release

Appendix D: FY 2015-2016 Regulatory Science Progress Report: Executive Summary

FDA is charged with determining the safety, quality, and efficacy of new drugs, biologics, and medical devices[9] of increasing diversity and complexity. This responsibility shapes our scientific research portfolio, which seeks to develop the methods, tools, and standards needed to support evaluation of these products throughout their life cycle. Through guidance to industry, scientific publications, and open discussions at FDA-sponsored workshops and other forums, these methods, tools, and standards become valuable scientific resources in the public domain and furnish medical product developers with clear pathways and expectations as they generate the evidence to support their products. FDA is also responsible for the oversight of manufacturing quality throughout the lifecycle of medical products. In addition, the Agency plays a critical role in protecting the United States from emerging public health threats. These additional regulatory responsibilities are also important drivers of our research agenda. To address them, in fiscal years 2015 and 2016 we made significant progress in a number of areas:

Refining non-clinical predictive models to support the evaluation of medical products

FDA researchers developed and/or refined a wide variety of computational tools that now support nonclinical evaluation of medical products. These tools included sophisticated models to predict the carcinogenic effects of certain drug ingredients based on their structural attributes, computational phantoms[10] to evaluate medical imaging devices, and mechanistically informed pharmacokinetic models to help predict drug exposures in populations where clinical data is difficult to obtain. Genetic and transplantation approaches were used to create animal models that may more closely predict human response to medical products, and novel physical methods and procedures were developed to support the evaluation of bioequivalence[11] of generic versions of locally acting drugs, like those acting in the skin or airways.

Improving clinical evaluation

To support clinical evaluation of medical products, our statisticians helped design master protocols to efficiently evaluate therapies for treating defined subsets of cancer patients. Through a carefully designed pathway to foster biomarker development and adoption,[12] we have qualified new biomarkers to guide treatment decisions and to predict disease progression. A long-term research effort to improve prediction of cardiovascular risks contributed to the recommendation by the International Conference on Harmonization[13] that the costly "thorough

[9] These products include generic drugs, and increasingly, combination products.
[10] Computational phantoms are mathematical representations of the human body that can be used to predict the effects of medical devices, such as exposure to radiation.
[11] Bioequivalence is the absence of a significant difference in the rate and extent to which the active ingredient or active moeity in pharmaceutical equivalents or pharmaceutical alternatives becomes available at the site of drug action when administered at the same molar dose under similar conditions in an appropriately designed study. 21 CFR 314.3(b). One of the requirements for approval of a generic drug is that the generic drug must be bioequivalent to the innovator drug.
[12] The Biomarker Qualification Program.
[13] The International Council for Harmonisation of Technical Requirements for Pharmaceuticals for Human Use (ICH) was established to allow FDA and its counterparts in the European Union and Japan to achieve greater harmonization in the regulation of medical products.

QT" clinical study (used to evaluate most drug candidates) could be replaced with electrocardiogram-based measurements performed during early-phase clinical studies.

Ensuring product quality

Our medical product centers continued to address scientific issues related to new technologies critical for product manufacturing, characterization of complex products, quality standards, post-approval monitoring of product quality, and understanding the complex interactions of regulated products with biological systems. We collaborated with the Biomedical Advanced Research and Development Authority (BARDA) to leverage continuous manufacturing to minimize domestic vulnerability to chemical, biologic, and radiologic threats, and we spearheaded creation of a 3-D printing facility to understand factors contributing to the quality and performance of implantable medical devices, drugs, and combination products made with this new technology. We developed automated approaches for predicting critical properties of human stem cell preparations, such as their ability to contribute to bone growth.

Advancing capabilities for the post-marketing surveillance of medical products

Exceeding our commitments to develop a national electronic system for active medical product surveillance, we expanded the Sentinel[14] system to include data from Medicare patients, and we developed new systems and tools for safety signal detection and interpretation. We worked with diverse stakeholders in the medical device ecosystem to further the development of a National Evaluation System for health Technology (NEST) that will increase access to and use of real-world evidence to support regulatory decisions.

Guidance to industry and promoting scientific collaboration

We shared our research with the medical product industry by publishing guidance documents[15] on a number of scientific topics—for example, how to test for Zika virus in blood and biologic products, how to formulate and validate reprocessing instructions for reusable medical devices, and how to evaluate abuse-deterrent properties of opioids. Our research contributed to the development of consensus standards, providing medical product developers with clearer pathways to developing evidence for product approval. We sponsored public workshops to foster scientific exchanges[16] with stakeholders representing industry, government, the academic community, and the public, and conducted or participated in numerous training activities, professional and scientific meetings, and workshops to help our staff integrate new scientific knowledge into review and regulatory practice. We expanded the number of our public-private partnerships to advance drug development, for example by inaugurating the International Neonatal Consortium, whose purpose is to forge a predictable regulatory path for evaluating therapies for neonates.

Improving our readiness to respond to health crises

[14] Launched as part of FDA's implementation of the Food and Drug Administration Amendments Act of 2007 (FDAAA), Sentinel is the FDA's national electronic system for monitoring of the safety of FDA-regulated medical products.
[15] www.fda.gov/RegulatoryInformation/Guidances/default.htm
[16] www.fda.gov/newsevents/meetingsconferencesworkshops/default.htm

The medical product centers supported the regulatory public health response to the threats of Ebola virus and Zika virus through development of tools, reference materials, and publication of science-based guidance to support rapid development of new medical products to diagnose, treat, or prevent diseases caused by these pathogens. Research efforts on other threats, such as pandemic influenza virus, continued to advance.

Enhancing scientific infrastructure and coordination

In the past two years, we enhanced information technology tools that support scientific review of regulatory applications. Following the success of the award-winning JumpStart service that allows reviewers to organize, manage, and verify the quality of the clinical data in product applications, FDA initiated Kickstart, a service that delivers individual training and user-driven support and analysis for non-clinical data. To make possible the secure deposition, retrieval, and analysis of the vast next generation sequencing data that will support personalized medicine, we continued to enhance our high performance scientific computing environments, enabling storage of regulatory data. We extended our laboratory capabilities and facilities for mission-critical areas, including advanced manufacturing, analytical methodology, and emerging infectious diseases.

Through organizational and programmatic changes, we have enhanced our ability to identify regulatory science issues and provide critical information for decision making. Within the Center for Drug Evaluation and Research, we created the Office of Pharmaceutical Quality to better align product quality research with review and inspection. Our Center for Biologics Evaluation and Research established a regulatory science council to oversee research activities and revamped its peer review process. The Center for Devices and Radiologic Health piloted a Regulatory Science Research Program Review to facilitate a feedback loop between CDRH reviewers and bench scientists. New programs to enhance scientific interactions with stakeholders, such as the Critical Path Information meetings, saw a surge of interest from stakeholders.

The medical product centers also worked collaboratively to bring new efficiencies to research efforts by creating a unified program for animal research on the White Oak campus. A new shared resources program provided for multi-center funding and governance of large shared equipment and computing resources, [17] and our Challenge Grant programs continued to support innovative projects to advance regulatory science.

A full report, "Regulatory Science Progress Report for FY 2015 and FY 2016," was completed in fulfillment of requirements under FDASIA Section 1124 and summarizes how FDA has advanced regulatory science to support medical product development in this time frame. The full report is available on the FDA website at: www.fda.gov/RegulatoryInformation/Legislation/SignificantAmendmentstotheFDCAct/FDASIA/ucm356316.htm.

[17] One of the first shared resources under this initiative was a 3-D printing facility, jointly funded and managed by the medical product centers, which will allow researchers to better understand the application of this technology to new products and to more effectively develop standards and guidance to facilitate product development.

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Appendix E: MDUFA III Process Improvement Commitments

This section presents selected portions of the MDUFA commitment letter that explain commitments related to process improvements. The complete commitment letter for MDUFA III can be found on FDA's website.[18]

I. Process Improvements

A. Submission Acceptance Criteria

To facilitate a more efficient and timely review process, FDA will implement revised submission acceptance criteria. The Agency will publish guidance outlining electronic copy of submissions (e-Copy) and objective criteria for revised "refuse to accept/refuse to file" checklists. FDA will publish draft and final guidance prior to implementation.

B. Guidance Document Development

FDA will apply user fee revenues to supplement the improvement of the process of developing, reviewing, tracking, issuing, and updating guidance documents. The Agency will continue to develop guidance documents and improve the guidance development process as resources permit, but not to the detriment of meeting the quantitative review timelines and statutory obligations. FDA will update its website in a timely manner to reflect the following:

1. The Agency's review of previously published device guidance documents, including the deletion of guidance documents that no longer represent the Agency's interpretation of, or policy on, a regulatory issue, and notation of guidance documents that are under review by the Agency;
2. A list of prioritized device guidance documents (an "A-list") that the Agency intends to publish within 12 months of the date this list is published each fiscal year; and
3. A list of device guidance documents (a "B-list") that the Agency intends to publish, as the Agency's guidance-development resources permit, each fiscal year.

The Agency will establish a process allowing stakeholders an opportunity to:

1. Provide meaningful comments and/or propose draft language for proposed guidance topics in the "A" and "B" lists;
2. Provide suggestions for new or different guidance documents; and
3. Comment on the relative priority of topics for guidance.

C. Third Party Review

The Agency will continue to support the third party review program and agrees to work with interested parties to strengthen and improve the current program while also establishing new procedures to improve transparency. The Agency will continue to improve the third party review program as resources permit, but not to the detriment of meeting the quantitative review timelines and statutory obligations.

D. Patient Safety and Risk Tolerance

FDA will fully implement final guidance on the factors to consider when making benefit-risk determinations in medical device premarket review. This guidance will focus on factors to consider in the premarket review process, including patient tolerance for risk, magnitude of the benefit, and the availability of other treatments or diagnostic tests. Over the period of MDUFA

[18] www.fda.gov/ForIndustry/UserFees/MedicalDeviceUserFee/ucm452538.htm

III, FDA will meet with patient groups to better understand and characterize the patient perspective on disease severity or unmet medical need. In addition, FDA will increase its utilization of FDA's Patient Representatives as Special Government Employee consultants to CDRH to provide patients' views early in the medical product development process and ensure those perspectives are considered in regulatory discussions. Applicable procedures governing conflicts of interest and confidentiality of proprietary information will be utilized for these consultations.

E. Low Risk Medical Device Exemptions

By the end of FY 2013, FDA will propose additional low risk medical devices to exempt from premarket notification. Within two years of such proposal, FDA intends to issue a final rule exempting additional low risk medical devices from premarket notification.

F. Emerging Diagnostics

FDA will work with industry to develop a transitional In Vitro Diagnostics approach for the regulation of emerging diagnostics.

G. Training

Prior to the commencement of MDUFA III, CDRH will implement its Reviewer Certification Program. FDA commits to holding a minimum of two medical device Vendor Days each year. CDRH will apply user fee revenues to supplement the following training programs:

1) Management training for Branch Chiefs and Division Directors.
2) MDUFA III Training Program for all staff.
3) Reviewer Certification Program for new CDRH reviewers. FDA will publish the curriculum of this program and other course offerings. FDA will consider comments from stakeholders when making updates to courses and determining course offerings.
4) Specialized training to provide continuous learning for all staff.

Appendix F: Definitions of Key Terms

A. Applicant: Applicant means a person who makes any of the following submissions to FDA:

- PMA under section 515;
- a premarket notification under section 510(k);
- an application for an IDE under section 520(g);
- a Pre-Submission;
- a CLIA waiver by application;
- a Dual 510(k) and CLIA waiver by application; or
- a BLA or supplement to a BLA under the Public Health Service Act (PHS) Act.

B. Electronic Copy (eCopy): An electronic copy is an exact duplicate of a paper submission, created and submitted on a CD, DVD, or in another electronic media format that FDA has agreed to accept, accompanied by a copy of the signed cover letter and the complete original paper submission. An electronic copy is not considered to be an electronic submission.

C. FDA Days: FDA Days are those calendar days when a submission is considered to be under review at the Agency for submissions that have been accepted (510(k)) or filed (PMA). FDA Days begin on the date of receipt of the submission or of the amendment to the submission that enables the submission to be accepted (510(k)) or filed (PMA).

D. MDUFA Decisions: Original PMAs: Decisions for Original PMAs are Approval, Approvable, Approvable Pending GMP Inspection, Not Approvable, Withdrawal, and Denial. 180-Day PMA Supplements: Decisions for 180-Day PMA Supplements include Approval, Approvable, and Not Approvable. Real-Time PMA Supplements: Decisions for Real-Time PMA supplements include Approval, Approvable, and not Approvable. 510(k)s: Decisions for 510(k)s are SE or NSE. CLIA Waiver by Applications: Decisions for CLIA Waiver by Applications are Withdrawn, Approval, and Denial. Decisions for BLAs are complete response and approval. BLAs have many application categories: Priority Original, Standard Original, Priority Efficacy Supplements, Standard Efficacy Supplements, Manufacturing Supplements Requiring Prior Approval, Class 1 Original BLA and BLA Efficacy Supplement Resubmissions, and Class 2 Original BLA and BLA Efficacy Supplement Resubmissions. Submissions placed on Application Integrity Program Hold will be removed from the MDUFA cohort.

E. Pre-Submission: A Pre-Submission includes a formal written request from an applicant for feedback from FDA which is provided in the form of a formal written response or, if the manufacturer chooses, a meeting or teleconference in which the feedback is documented in meeting minutes. A Pre-Submission meeting is a meeting or teleconference in which FDA provides its substantive feedback on the Pre-Submission. A Pre-Submission provides the opportunity for an applicant to obtain FDA feedback prior to intended submission of an IDE or marketing application. The request must include specific questions regarding review issues relevant to a planned IDE or marketing application (e.g., questions regarding pre-clinical and clinical testing protocols or data requirements). A Pre-Submission is appropriate when FDA's feedback on specific questions is necessary to guide product development and/or application preparation. The following forms of FDA feedback to applicants are not considered Pre-Submissions; however, if the requested feedback meets the criteria for a Pre-Submission, outlined above, FDA will contact the sponsor, and with the concurrence of the sponsor, may convert the request to a Pre-Submission:

- General information requests initiated through the Division of Industry and Consumer Education (DICE)

- General questions regarding FDA policy or procedures
- Meetings or teleconferences that are intended to be informational only, including, but not limited to, those intended to educate the review team on new device(s) with significant differences in technology from currently available devices, or to update FDA about ongoing or future product development, without a request for FDA feedback on specific questions related to a planned submission
- Requests for clarification on technical guidance documents, especially where contact is recommended by FDA in the guidance document. However, the following requests will generally need to be submitted as a Pre-Submission in order to ensure appropriate input from multiple reviewers and management: recommendations for device types not specifically addressed in the guidance document; recommendations for nonclinical or clinical studies not addressed in the guidance document; requests to use an alternative means to address recommendations specified in a guidance document.
- Phone calls or email messages to reviewers that can be readily answered based on a reviewer's experience and knowledge and do not require the involvement of a broader number of FDA staff beyond the routine involvement of the reviewer's supervisor and more experienced mentors.
- Interactions requested by either the applicant or FDA during the review of a marketing application (i.e., following submission of a marketing application, but prior to reaching an FDA Decision).

F. Substantive Interaction: Substantive Interaction is an email, letter, teleconference, video conference, fax, or other form of communication, such as a request for Additional Information or a Major Deficiency letter, by FDA notifying the applicant of substantive deficiencies identified in initial submission review, or a communication stating that FDA has not identified any deficiencies in the initial submission review and any further minor deficiencies will be communicated through interactive review. An approval or clearance letter issued prior to the Substantive Interaction goal date will qualify as a Substantive Interaction. If substantive issues warranting issuance of an Additional Information or Major Deficiency letter are not identified, interactive review should be used to resolve any minor issues and facilitate an FDA decision. In addition, interactive review will be used where, in FDA's estimation, it leads to a more efficient review process during the initial review cycle (i.e., prior to a Substantive Interaction) to resolve minor issues such as revisions to administrative items (e.g., 510(k) Summary/Statement, Indications for Use statement, environmental impact assessment, financial disclosure statements); a more detailed device description; omitted engineering drawings; revisions to labeling; or clarification regarding nonclinical or clinical study methods or data. Minor issues may still be included in an Additional Information or Major Deficiency letter where related to the resolution of the substantive issues (e.g., modification of the proposed Indications for Use may lead to revisions in labeling and administrative items), or if they were still unresolved following interactive review attempts. Both interactive review and Substantive Interactions will occur on the review clock except upon the issuance of an Additional Information or Major Deficiency Letter which stops the review clock.

G. BLA-related Definitions:

Review and act on – the issuance of a complete response letter after the complete review of a filed complete application. The action letter, if it is not an approval, will set forth in detail the specific deficiencies and, where appropriate, the actions necessary to place the application in condition for approval.

Class 1 resubmitted applications – applications resubmitted after a complete response letter that includes the following items only (or combinations of these items):

(a) Final printed labeling
(b) Draft labeling
(c) Safety updates submitted in the same format, including tabulations, as the original safety submission with new data and changes highlighted (except when large amounts of new information including important new adverse experiences not previously reported with the product are presented in the resubmission)
(d) Stability updates to support provisional or final dating periods
(e) Commitments to perform Phase 4 studies, including proposals for such studies
(f) Assay validation data
(g) Final release testing on the last 1-2 lots used to support approval
(h) A minor reanalysis of data previously submitted to the application (determined by the Agency as fitting the Class 1 category)
(i) Other minor clarifying information (determined by the Agency as fitting the Class 1 category)
(j) Other specific items may be added later as the Agency gains experience with the scheme and will be communicated via guidance documents to industry

Class 2 resubmitted applications – resubmissions that include any other items, including any item that would require presentation to an advisory committee

Department of Health and Human Services
Food and Drug Administration

This report was prepared by FDA's Office of Planning in collaboration with the Center for Biologics Evaluation and Research (CBER) and the Center for Devices and Radiological Health (CDRH). For information on obtaining additional copies contact:

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