FY 2018

PERFORMANCE REPORT TO CONGRESS

for the

Prescription Drug User Fee Act

Acting Commissioner's Report

I am pleased to present to Congress the Food and Drug Administration's (FDA or the Agency) Fiscal Year (FY) 2018 Prescription Drug User Fee Act (PDUFA) performance report. This report marks the 26th year of PDUFA and the 1st year of PDUFA VI (FY 2018 through FY 2022).

This report presents updated data on FDA's progress in meeting FY 2017 performance goals, preliminary data on meeting FY 2018 review performance goals, and other commitments under PDUFA VI as of September 30, 2018.

One of the key programs continuing under PDUFA VI is the Enhanced Review Transparency and Communication for New Molecular Entity (NME) New Drug Applications (NDAs) and Original Biologics License Applications (BLAs) Program (the Program). As of September 30, 2018, FDA has received 355 applications through the Program since its inception on October 1, 2012, which involves more communication and transparency between the applicant and the FDA review team during review of the marketing application. The FY 2017 Program cohort is closed, with 100 percent of applications acted on within the goal date. The FY 2018 Program cohort has received 75 applications to date. While most of these applications are still under review and within their PDUFA goal date, all applications that received a first cycle action by September 30, 2018, were acted on within the goal date.

We are committed to meeting all PDUFA performance goals related to human drug review. In FY 2018, the Agency engaged in sustained efforts to recruit and hire new talent for the human drug review program to better enable FDA to meet increasing demands on the program, particularly in the area of meeting management goals. Moving forward into FY 2019, FDA will continue to enhance the program's staffing in addition to strengthening our efforts to improve program performance while maintaining a focus on ensuring that safe, effective, and high-quality new drugs and biologics are reviewed in an efficient and predictable time frame.

Norman E. Sharpless, M.D.
Acting Commissioner of Food and Drugs

Acronyms

BLA – Biologics License Application

CBER – Center for Biologics Evaluation and Research

CDER – Center for Drug Evaluation and Research

EMA – European Medicines Agency

EOP – End of Phase

ETASU – Elements to Assure Safe Use

FAERS – FDA Adverse Event Reporting System

FDA – Food and Drug Administration

FDARA – FDA Reauthorization Act of 2017

FDASIA – Food and Drug Administration Safety and Innovation Act

FY – Fiscal Year (October 1 to September 30)

ICH – International Conference on Harmonization of Technical Requirements for Registration of Pharmaceuticals for Human Use

IND – Investigational New Drug

NDA – New Drug Application

NIH – National Institutes of Health

NME – New Molecular Entity

OND – Office of New Drugs

OPQ – Office of Pharmaceutical Quality

OSE – Office of Safety and Epidemiology

PDUFA – Prescription Drug User Fee Act

PEPFAR – President's Emergency Plan for AIDS Relief

PFDD – Patient-Focused Drug Development

PMC – Postmarketing Commitment

PMR – Postmarketing Requirement

PRISM – Post-licensure Rapid Immunization Safety Monitoring

REMS – Risk Evaluation and Mitigation Strategy

VAERS – Vaccine Adverse Event Reporting System

Executive Summary

The Prescription Drug User Fee Act (PDUFA) was enacted in 1992, and it authorized the Food and Drug Administration (FDA or the Agency) to collect user fees from pharmaceutical and biotechnology companies for the review of certain human drug and biological products. In return, FDA commits to certain review performance goals, procedural and processing goals, and other commitments that are part of the Agency's agreement with regulated industry.

PDUFA must be reauthorized by Congress every 5 years. The fifth re-authorization (known as PDUFA VI) occurred on August 18, 2017, when the President signed into law the FDA Reauthorization Act of 2017 (FDARA). As directed by Congress, FDA developed proposed enhancements for PDUFA VI in consultation with drug industry representatives, patient and consumer advocates, health care professionals, and other public stakeholders. These discussions led to the current performance goals for the FY 2018-2022 period, which are detailed in a document commonly known as the "PDUFA Commitment Letter."[1]

This report summarizes FDA's performance in meeting PDUFA goals and commitments for FY 2017 and FY 2018, the fifth year under PDUFA V and the first year under PDUFA VI. Specifically, it updates performance data for submissions received in FY 2017 (initially reported in the FY 2017 PDUFA performance report)[2] and presents preliminary data on FDA's progress in meeting FY 2018 goals. Updates on FDA's accomplishments related to additional PDUFA VI commitments for FY 2018 and historical review trend data are also included. Appendices include details of FY 2017 and FY 2018 performance, review cycle data on all original new drug applications (NDAs) and biologics license applications (BLAs) approved during FY 2018, the number and characteristics of applications filed by review division, and definitions of key terms used in this report. Descriptions of the various submission types are included on page 4.

Achievements in FY 2018

In FY 2017, 58 applications were received through the modified review program (the Program) for new molecular entity (NME) NDAs and original BLAs. As of September 30, 2018, 100 percent of these applications were acted on within goal. During FY 2018, 75 applications were received and will be reviewed under the Program. As of September 30, 2018, 28 of these applications had been reviewed and acted on, with all reviews completed on time. The remaining 47 applications are pending within their PDUFA goal dates. Quality metrics related to the FY 2017 Program applications are included in this report.

[1] www.fda.gov/downloads/ForIndustry/UserFees/PrescriptionDrugUserFee/UCM511438.pdf
[2] www.fda.gov/AboutFDA/ReportsManualsForms/Reports/UserFeeReports/PerformanceReports/ucm2007449.htm

The estimated[3] median approval times for priority NDA and BLA applications received in FY 2017 decreased slightly, while standard approval times also decreased slightly compared to estimated median approval times in FY 2016. The preliminary data show that the percentage of priority and standard applications filed in FY 2017 and approved during the first review cycle were 85 percent and 61 percent, respectively.

Review Performance

The FY 2017 cohort had a workload of 2,983 goal closing actions. FDA met or exceeded the 90-percent performance level for 11 of 12 review performance goals.

As of September 30, 2018, FDA had completed 1,773 actions for the FY 2018 cohort. FDA is currently meeting or exceeding 11 of 12 review performance goals for FY 2018. With 1,239 submissions currently under review and still within the PDUFA goal date, FDA has the potential to meet or exceed 11 of 12 review performance goals for FY 2018.

Procedural and Processing Performance

FDA's workload for activities related to procedural and processing goals and commitments (i.e., meeting management, procedural responses, and procedural notifications) for the FY 2017 cohort totaled 9,785. FDA met or exceeded the 90-percent performance level for 13 of 18 procedural and processing goals, while the remaining 5 goals were met with 69 percent or higher on-time performance.

FDA is currently meeting or exceeding 8 of 19 procedural and processing goals for the FY 2018 cohort. With 1,071 submissions currently under review and still within the PDUFA goal date, FDA has the potential to meet or exceed 8 of 19 procedural and processing goals for FY 2018, with the potential to meet 3 out of the remaining 11 goals that could exceed 85 percent on-time performance.

Additional PDUFA VI Commitments

During FY 2018, FDA made significant progress implementing other important PDUFA VI commitments, including enhancing patient input and integrating it into regulatory decision making, enhancing regulatory science and use of real-world evidence, expediting drug development, enhancing benefit-risk assessment in regulatory decision making, enhancing regulatory decision tools to support drug development and review, enhancing and modernizing the FDA drug safety system, and improving the efficiency of human drug review through required electronic submissions and standardization of electronic drug application data. These achievements, as well as information about FDA's information technology accomplishments, are included in this report.

[3] Median approval time is estimated because an application can receive an approval after multiple review cycles, thus impacting median approval time for all applications in a given receipt cohort. Some applications may be approved several years after their original receipt.

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Introduction

On August 18, 2017, the President signed the FDA Reauthorization Act of 2017 (FDARA) into law, which included the reauthorization of the Prescription Drug User Fee Act (PDUFA) for FY 2018 through FY 2022, known as PDUFA VI. PDUFA VI continues to provide FDA with a consistent source of funding to help maintain a predictable and efficient review process for human drugs and biologics. In return for additional resources, FDA agreed to certain review performance goals, such as reviewing and acting on NDA and BLA submissions within predictable timeframes.

Since the enactment of PDUFA I in 1992, FDA has used PDUFA resources to significantly reduce the time it takes to evaluate new drugs and biologics without compromising its rigorous standards for demonstration of safety, efficacy, and quality of new drugs and biologics before approval. The efficiency gains under PDUFA have revolutionized the drug review process in the United States and enabled FDA to ensure more timely access to innovative and important new therapies for patients.

More information on the history of PDUFA is available on the FDA website.[4]

Information Presented in This Report

This report presents PDUFA performance and workload information for two different types of goals: (1) review of applications and other submissions pertaining to human drugs and biologics and (2) meeting management and other procedural goals related to responses and notifications in the human drug review process. PDUFA workload information for these goals is included in the tables that follow. Significant components of the PDUFA workload that are not captured by PDUFA goals and are therefore not presented in this report include review of investigational new drug (IND) applications, labeling supplements, annual reports, and the ongoing monitoring of drug safety in the postmarket setting.

PDUFA performance information related to achieving the two types of goals includes reviews of submissions pending from the previous fiscal year as well as reviews of submissions received during the current fiscal year. This report presents final performance for the FY 2017 cohort of submissions based on actions completed in FY 2017 and FY 2018. In addition, it includes preliminary performance for the FY 2018 cohort of submissions that had actions completed or due for completion in FY 2018. Final performance for the FY 2018 cohort will be presented in the FY 2019 PDUFA performance report and will include actions for submissions still pending within the PDUFA goal date as of September 30, 2018.

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

- The following terminology is used throughout this document:
  - *Application* means a new, original application.
  - *Supplement* means a supplement to an approved application.

[4] www.fda.gov/AboutFDA/ReportsManualsForms/Reports/UserFeeReports/PerformanceReports/ucm2007449.htm

- *Resubmission* means a resubmitted application or supplement in response to a complete response, approvable, not approvable, or tentative approval letter
- *NME* refers only to NMEs that are submitted for approval under NDAs (not BLAs).
- *Submission* applies to all of the above.
- *Action* refers to an FDA decision on any of the above, including an approval, a tentative approval, a complete response, or withdrawal of the submission by the sponsor.

- Under PDUFA VI, the preliminary counts of NMEs in workload tables for the current fiscal year may not reflect final determination of NME status. FDA often receives multiple submissions for the same NME (e.g., different dosage forms). All such submissions are initially designated as NMEs, and once FDA approves the first of the multiple submissions, the others will be designated as non-NMEs and workload numbers will be appropriately updated in later years.

- The data presented in this report do not include biosimilar INDs or BLAs. These data are presented in the annual Biosimilars User Fee Act (BsUFA) performance reports located on the FDA website.[5]

- FDA only files applications that are sufficiently complete to permit a substantive review. The Agency makes a filing decision within 60 days of an original application's receipt. FDA's review of an application begins once the application is received. For NME NDAs and original BLAs reviewed under the Program (see the PDUFA VI Commitment Letter[6] for more information), the PDUFA clock begins after the conclusion of the 60-day filing period. For all other submissions, the PDUFA clock begins upon FDA's receipt of the application.

- FDA reports PDUFA performance data annually for each fiscal year receipt cohort (defined as submissions filed from October 1 to September 30 of the following year). In each fiscal year, FDA receives submissions that will have associated goals due in the following fiscal year. In these cases, FDA's performance will be reported in subsequent fiscal years, either after the Agency takes an action or when the goal becomes overdue, whichever comes first.

- Submission types (e.g., responses to clinical holds) with shorter (e.g., 30 day) review-time goals tend to have a larger percentage of reviews completed by the end of the fiscal year, and their preliminary performance is a more reliable indicator of their final performance. However, submission types (e.g., standard NME NDA/BLA) with longer (e.g., within 10 months of the 60-day filing date) review-time goals tend to have a smaller percentage of reviews completed, and their preliminary performance is a less reliable

[5] www.fda.gov/AboutFDA/ReportsManualsForms/Reports/UserFeeReports/PerformanceReports/ucm384244.htm
[6] www.fda.gov/downloads/ForIndustry/UserFees/PrescriptionDrugUserFee/UCM511438.pdf

indicator of their final performance.

- Final performance for FY 2017 submissions is shown as the percentage of submissions that were reviewed within the specified goal timeline. Submission types with 90 percent or more submissions reviewed by the goal date are shown as having met the goal.

- Preliminary performance for FY 2018 submissions is shown as the percentage of submissions reviewed on time as of September 30, 2018, excluding actions pending within the PDUFA goal date. Submission types with 90 percent or more submissions reviewed by the goal date are shown as currently meeting the goal. The highest possible percent of reviews that may be completed on time (highest possible performance) if all non-overdue pending reviews are completed within goal is also shown.

- FY 2018 workload and performance figures include applications that are identified as *undesignated*, which means they are still within the 60-day filing date and have not yet had a review designation, standard or priority, made.

- For resubmitted applications, the applicable performance goal is determined by the fiscal year in which the resubmission is received, rather than the year in which the original application was submitted.

- Unless otherwise noted, all performance data are as of September 30, 2018.

- Definitions of key terms used throughout this report can be found in Appendix G.

Submission Types Included in This Report

- **NDA** – When the sponsor of a new drug believes that enough evidence on the drug's safety and effectiveness has been obtained to meet FDA's requirements for marketing approval, the sponsor submits to FDA a new drug application (NDA). The application must contain data from specific technical viewpoints for review, including chemistry, pharmacology, medical, biopharmaceutics, and statistics. If the NDA is approved, the product may be marketed in the United States.
- **NME** – A new molecular entity (NME) is an active ingredient that contains no active moiety that has been previously approved by FDA in an application submitted under section 505 of the Federal Food, Drug, and Cosmetic Act or has been previously marketed as a drug in the United States.
- **BLA** – A biologics license application (BLA) is a submission that contains specific information on the manufacturing processes, chemistry, pharmacology, clinical pharmacology, and the clinical effects of a biological product. If the information provided meets FDA requirements, the application is approved, and a license is issued allowing the firm to market the product.
- **Resubmission** – A resubmitted original application or supplement is a complete response to an FDA action letter that addresses all identified deficiencies.
- **Supplement** – A supplement is an application to allow a company to make changes in a product that already has an approved NDA or to seek FDA approval for new uses of an approved drug. The Center for Drug Evaluation and Research (CDER) must approve all major NDA changes (in packaging or ingredients, for instance) to ensure the conditions originally set for the product are still met.
- **Source:** www.fda.gov/Drugs/InformationOnDrugs/ucm079436.htm

PDUFA Review Goals

Review Workload: FY 2013 to FY 2018

In the table below, preliminary workload numbers from FY 2018 are compared to the previous 5-year averages for original NDAs and BLAs, resubmissions, and supplements. FDA noted a large increase in the number of Original Priority NMEs and BLAs and Priority NDA and BLA Efficacy Supplements in FY 2018. Other submission types, notably Original Priority non-NME NDAs and Class 2 Resubmitted NDAs and BLAs, all showed substantial increases in workload in FY 2018.

Definitions of Class 1 and Class 2 resubmissions and other terms are found in Appendix G. The data presented in this section represent receipts by FDA of the submission types listed in the table.

Workload for Applications and Submissions

Submission Type	FY 13	FY 14	FY 15	FY 16	FY 17*	FY 18	FY 13 to FY 17 5-Year Average	FY 18 Compared to 5-Year Average
Original Priority NMEs and BLAs	19	28	25	23	31	51	25	+104%
Original Standard NMEs and BLAs	35	21	32	24	22	23	27	-15%
Original Priority non-NME NDAs	8	10	9	12	24	20	13	+54%
Original Standard non-NME NDAs	76	72	84	72	81	64	77	-17%
Class 1 Resubmitted NDAs and BLAs	11	7	7	5	8	9	8	+13%
Class 2 Resubmitted NDAs and BLAs	38	35	37	31	49	50	38	+32%
Priority NDA and BLA Efficacy Supplements	29	40	52	54	78	109	51	+114%
Standard NDA and BLA Efficacy Supplements	123	165	136	145	173	147	148	-1%
Class 1 Resubmitted NDA and BLA Efficacy Supplements	2	7	0	3	3	3	3	0%
Class 2 Resubmitted NDA and BLA Efficacy Supplements	10	10	11	11	11	10	11	-9%
NDA and BLA Manufacturing Supplements requiring prior approval	873	776	765	842	968	1,020	845	+21%
NDA and BLA Manufacturing Supplements not requiring prior approval	1,542	1,392	1,614	1,475	1,540	1,506	1,513	0%

* FY 2017 numbers were changed to reflect updates to data presented in the FY 2017 PDUFA performance report.

Final FY 2017 Review Performance

Final FY 2017 review goal performance is presented in the table below. Final performance for submission types that met the goal (90 percent or more actions completed by the goal date) is shown in bold text. Applications reviewed under the Program have review goals starting from the 60-day filing date, while other submissions have goals starting from the submission receipt date. FDA met or exceeded the 90 percent performance level for 11 out of 12 review performance goals in FY 2017. More detailed information on performance is available in Appendix A.

Submission Type	Goal: Act on 90 Percent Within	Total	FY 2017 Performance
Original Priority NMEs and BLAs	6 months of filing date	31 of 31 on time	**100%**
Original Standard NMEs and BLAs	10 months of filing date	22 of 22 on time	**100%**
Original Priority non-NME NDAs	6 months	24 of 24 on time	**100%**
Original Standard non-NME NDAs	10 months	79 of 80 on time	**99%**
Class 1 Resubmitted NDAs and BLAs	2 months	7 of 8 on time	88%
Class 2 Resubmitted NDAs and BLAs	6 months	47 of 49 on time	**96%**
Priority NDA and BLA Efficacy Supplements	6 months	78 of 78 on time	**100%**
Standard NDA and BLA Efficacy Supplements	10 months	161 of 169 on time	**95%**
Class 1 Resubmitted NDA and BLA Efficacy Supplements	2 months	3 of 3 on time	**100%**
Class 2 Resubmitted NDA and BLA Efficacy Supplements	6 months	11 of 11 on time	**100%**
NDA and BLA Manufacturing Supplements requiring prior approval	4 months	937 of 968 on time	**97%**
NDA and BLA Manufacturing Supplements not requiring prior approval	6 months	1,507 of 1,540 on time	**98%**

Preliminary FY 2018 Review Performance

Preliminary FY 2018 review goal performance is presented in the table below.

- The progress (the number of reviews completed or pending overdue) and the total number of submissions received for each submission type are shown in the second column. Current performance for submission types with a greater proportion of reviews completed will be more representative of final performance. These data include the number of submissions reviewed *on time* (acted on by the PDUFA goal date) or *overdue* (acted on past goal or pending past the goal date) and the final *percent on time* (final performance with no actions pending within the PDUFA goal date). Appendix B contains additional information on the completed reviews.
- Applications reviewed under the Program have review goals starting from the 60-day filing date, while other submissions have goals starting from the submission receipt date.
- Current performance for submission types that are meeting the performance goal (90 percent or more reviews completed by the goal date) as of September 30, 2018, is shown in bold text. FDA is currently meeting or exceeding the 90 percent performance level for 11 of 12 review performance goals.
- If all non-overdue pending submissions are reviewed on time, FDA will achieve the performance presented in the Highest Possible Final Performance column. FDA has the potential to meet or exceed the 90 percent performance level for 11 out of 12 review performance goals.

Submission Type	Progress*	Goal: Act on 90 Percent Within	FY 2018 Current Performance	Highest Possible Final Performance
Original Priority NMEs and BLAs	22 of 50 complete	6 months of filing date	**100%**	100%
Original Standard NMEs and BLAs	1 of 23 complete	10 months of filing date	**100%**	100%
Original Priority non-NME NDAs	10 of 12 complete	6 months	**100%**	100%
Original Standard non-NME NDAs	12 of 64 complete	10 months	**100%**	100%
Class 1 Resubmitted NDAs and BLAs	8 of 9 complete	2 months	88%	89%
Class 2 Resubmitted NDAs and BLAs	26 of 50 complete	6 months	**96%**	98%
Priority NDA and BLA Efficacy Supplements	53 of 77 complete	6 months	**100%**	100%
Standard NDA and BLA Efficacy Supplements	44 of 147 complete	10 months	**98%**	99%
Class 1 Resubmitted NDA and BLA Efficacy Supplements	2 of 3 complete	2 months	**100%**	100%
Class 2 Resubmitted NDA and BLA Efficacy Supplements	5 of 10 complete	6 months	**100%**	100%
NDA and BLA Manufacturing Supplements requiring prior approval	638 of 1,020 complete	4 months	**96%**	98%
NDA and BLA Manufacturing Supplements not requiring prior approval	952 of 1,506 complete	6 months	**98%**	99%

* Does not include undesignated applications in total. Undesignated applications have only pending status.

PDUFA Procedural and Processing Goals and Commitments

Procedural and Processing Workload: FY 2013 to FY 2018

The FY 2018 procedural and processing workload, which includes activities related to meeting management, procedural responses, and procedural notifications, is compared to the previous 5-year averages in the table below. The marked upward trend of meeting management workload during PDUFA V continued into PDUFA VI in FY 2018.

A new category of Type B meeting, Type B (EOP)[7], was created under PDUFA VI. Therefore, when comparing FY 2018 data to previous years' data, it is important to include both Type B meeting categories for FY 2018. This new category also included a new meeting metric, Type B (EOP) Preliminary Response. Meeting type definitions and other terms can be found in Appendix G. The table shows updated final FY 2017 performance as well as presents new reporting required under PDUFA VI.

Meeting Management, Procedural Responses, and Procedural Notifications Workload

Submission/Request Type	FY 13	FY 14	FY 15	FY 16	FY 17*	FY 18	FY 13 to FY 17 5-Year Average	FY 18 Compared to 5-Year Average
Type A Meeting Requests	140	160	121	135	175†	223†	146	+53%
Type B Meeting Requests	1,394	1,467	1,664	1,738	1,850	1,571	1,623	-3%
Type B (EOP) Meeting Requests	--	--	--	--	--	334	--‡	--‡
Type C Meeting Requests	932	995	1,237	1,372	1,391	1,364	1,185	+15%
Type A Meetings Scheduled	118	145	107	123	159	203†	130	+56%
Type B Meetings Scheduled	1,189	1,154	1,204	1,183	1,293	927	1,205	-23%
Type B (EOP) Meetings Scheduled	--	--	--	--	--	315	--‡	--‡
Type C Meetings Scheduled	611	543	603	596	660	635	603	+5%
Type A Written Response	--	--	--	--	--	7	--‡	--‡
Type B Written Response	153	249	382	469	482	565	347	+63%
Type B (EOP) Written Response	--	--	--	--	--	15	--‡	--‡
Type C Written Response	281	393	546	658	652	657	506	+30%
Type B (EOP) Preliminary Response	--	--	--	--	--	289	--‡	--‡
Meeting Minutes	1,486	1,503	1,517	1,500	1,679	1,521	1,537	-1%
Responses to Clinical Holds	161	148	161	232	193	202	179	+13%
Major Dispute Resolutions	25	33	15	17	20	23	22	+5
Special Protocol Assessments	222	201	231	215	173	161	208	-23%

[7] End of Phase (EOP)

Submission/Request Type	FY 13	FY 14	FY 15	FY 16	FY 17*	FY 18	FY 13 to FY 17 5-Year Average	FY 18 Compared to 5-Year Average
Review of Proprietary Names Submitted During IND Phase	161	170	178	158	176	159	169	-6%
Review of Proprietary Names Submitted with NDA/BLA	224	209	213	202	255	226	221	+2%

* FY 2017 numbers were changed to reflect updates to data presented in the FY 2017 PDUFA performance report.
‡ Due to changing reporting requirements, no past-year average is presented for this area.

Final FY 2017 Procedural and Processing Performance

The table below presents final performance for FY 2017 submissions in meeting goals related to meeting management, procedural responses, and procedural notifications. Final performance for submission types that met the goal (90 percent or more reviews completed by the goal date) is shown in bold text. FDA exceeded the 90 percent performance level for 13 of 18 procedural and processing goals in FY 2017. More detailed information on performance is available in Appendix A.

Submission/Request Type	Goal: 90 Percent	Total	FY 2017 Performance
Type A Meeting Requests	Respond within 14 days	158 of 175 on time	**90%**
Type B Meeting Requests	Respond within 21 days	1700 of 1850 on time	**92%**
Type C Meeting Requests	Respond within 21 days	1278 of 1391 on time	**92%**
Type A Meetings Scheduled	Schedule within 30 days	119 of 159 on time	75%
Type B Meetings Scheduled	Schedule within 60 days	895 of 1293 on time	69%
Type C Meetings Scheduled	Schedule within 75 days	506 of 660 on time	77%
Type B Written Response	Respond within 60 days	371 of 482 on time	77%
Type C Written Response	Respond within 75 days	551 of 652 on time	85%
Meeting Minutes	Issue within 30 days after meeting date	1557 of 1679 on time	**93%**
Responses to Clinical Holds	Respond within 30 days	180 of 193 on time	**93%**
Major Dispute Resolutions	Respond within 30 days	19 of 20 on time	**95%**
Special Protocol Assessments	Respond within 45 days	165 of 173 on time	**95%**
Review of Proprietary Names Submitted During IND Phase	Review within 180 days	175 of 176 on time	**99%**
Review of Proprietary Names Submitted with NDA/BLA	Review within 90 days	252 of 255 on time	**99%**
First-Cycle Filing Review Notifications: NDAs and BLAs	Notify within 74 days	149 of 155 on time	**96%**

Submission/Request Type	Goal: 90 Percent	Total	FY 2017 Performance
First-Cycle Filing Review Notifications: Efficacy Supplements	Notify within 74 days	152 of 160 on time	**95%**
Notification of Planned Review Timelines: NDAs and BLAs	Notify within 74 days	153 of 155 on time	**99%**
Notification of Planned Review Timelines: Efficacy Supplements	Notify within 74 days	156 of 157 on time	**99%**

Meeting Planned Review Timeline Target Dates

FDA has committed to inform applicants of the planned timeline for feedback related to labeling and postmarketing requirements (PMRs) and postmarketing commitments (PMCs). This timeline is included in a letter sent within 14 days of the 60-day filing date (known as a 74-day letter).

FDA committed to report performance in meeting the planned review timelines for communication of labeling comments and PMR/PMC requirements/requests, although there is no specific performance goal. This commitment includes reporting on the number and percentage of applications for which the planned target dates for communication of labeling comments and PMRs/PMCs were met. If FDA receives a major amendment after issuing the 74-day letter, the target date included is no longer applicable. For FY 2017, 64 percent of NDAs and BLAs and 68 percent of Efficacy Supplements met their target dates. FY 2018 cohort performance will not be included, as this reporting is no longer required under PDUFA VI.

Final FY 2017 Cohort Performance

Application Type	Number of 74-Day Letters with Timelines	Target Date Inapplicable	Target Date Met*	Target Date Not Met	Withdrawn	Percent of Applications Target Date Met
NDAs and BLAs	153**	4	95	53	0	**64%**†
Efficacy Supplements	156	6	101	48	1	**68%**

* Target dates for 10 NDAs/BLAs and 1 efficacy supplement were met by communicating deficiencies.

† FY 2017 numbers were changed to reflect updates to data presented in the FY 2017 PDUFA performance report.

** One application received a complete response letter after the 74 Day Letter was issued and prior to the Labeling/PMR/PMC Discussion Goal. This was included in the count for letters with timelines but not the count for disposition of the target date.

Preliminary FY 2018 Procedural and Processing Performance

The table below presents preliminary performance for FY 2018 submissions in achieving goals related to meeting management, procedural responses, and procedural notifications as outlined under PDUFA VI.

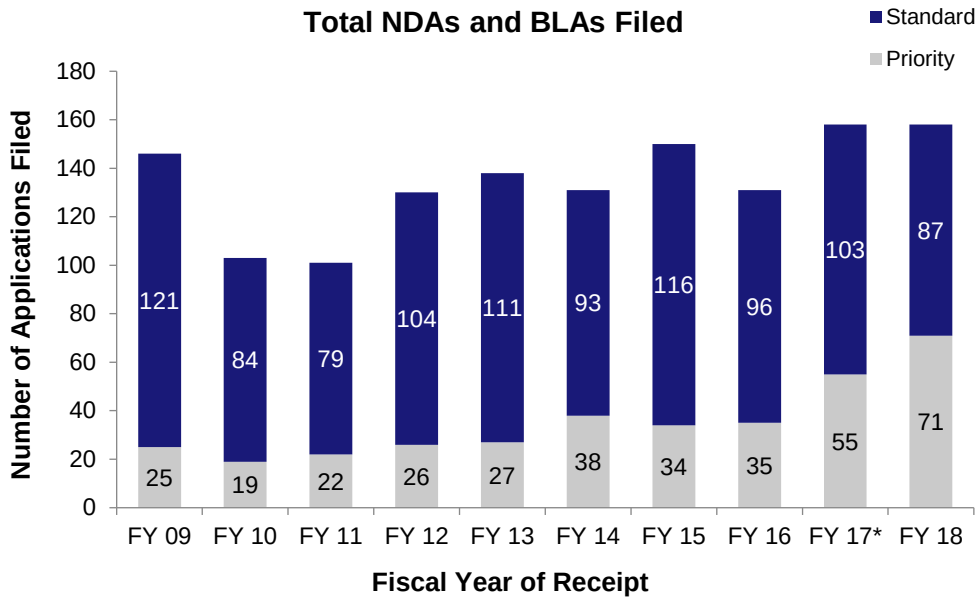
- The progress (the number of review activities completed or pending overdue) and the total number of submissions received for each submission type are shown in the second column. These data include the number of submissions reviewed *on time* (acted on by the PDUFA goal date) or *overdue* (acted on past goal or pending past the goal date) and the final *percent on time* (final performance with no actions pending within the PDUFA goal date). More detailed information on the completed review activities is available in Appendix B.
- Current performance for submission types that are meeting the performance goal (90 percent or more reviews completed by the goal date) as of September 30, 2018, is shown in bold text. FDA is currently meeting or exceeding the 90 percent performance level for 8 of 19 procedural and processing goals. If all pending submissions are reviewed on time, FDA has the potential to meet 8 of 19 goals, as seen in the Highest Possible Final Performance column.

Submission/Request Type	Progress	Goal: 90 Percent	FY 2018 Current Performance	Highest Possible Final Performance
Type A Meeting Requests	167 of 223 complete	Respond within 14 days	80%	85%
Type B Meeting Requests	1550 of 1571 complete	Respond within 21 days	**90%**	90%
Type B (EOP) Meeting Requests	331 of 334 complete	Respond within 14 days	79%	79%
Type C Meeting Requests	1334 of 1364 complete	Respond within 21 days	**91%**	92%
Type A Meetings Scheduled	136 of 203 complete	Schedule within 30 days	68%	79%
Type B Meetings Scheduled	883 of 927 complete	Schedule within 60 days	62%	64%
Type B (EOP) Meetings Scheduled	306 of 315 complete	Schedule within 70 days	75%	75%
Type C Meetings Scheduled	596 of 635 complete	Schedule within 75 days	74%	75%
Type A Written Response	6 of 7 complete	Respond within 30 days	67%	71%
Type B Written Response	495 of 565 complete	Respond within 60 days	77%	80%
Type B (EOP) Written Response	12 of 15 complete	Respond within 70 days	58%	67%
Type C Written Response	541 of 657 complete	Respond within 75 days	86%	88%
Preliminary response for Type B (EOP) Meetings	227 of 289 complete	Issue within 5 days prior to meeting date	85%	88%

Submission/Request Type	Progress	Goal: 90 Percent	FY 2018 Current Performance	Highest Possible Final Performance
Meeting Minutes	1101 of 1521 complete	Issue within 30 days after meeting date	**91%**	93%
Responses to Clinical Holds	190 of 202 complete	Respond within 30 days	**94%**	95%
Major Dispute Resolutions	22 of 23 complete	Respond within 30 days	**100%**	100%
Special Protocol Assessments	148 of 161 complete	Respond within 45 days	**95%**	96%
Review of Proprietary Names Submitted During IND Phase	86 of 159 complete	Review within 180 days	**99%**	99%
Review of Proprietary Names Submitted with NDA/BLA	194 of 226 complete	Review within 90 days	**99%**	100%

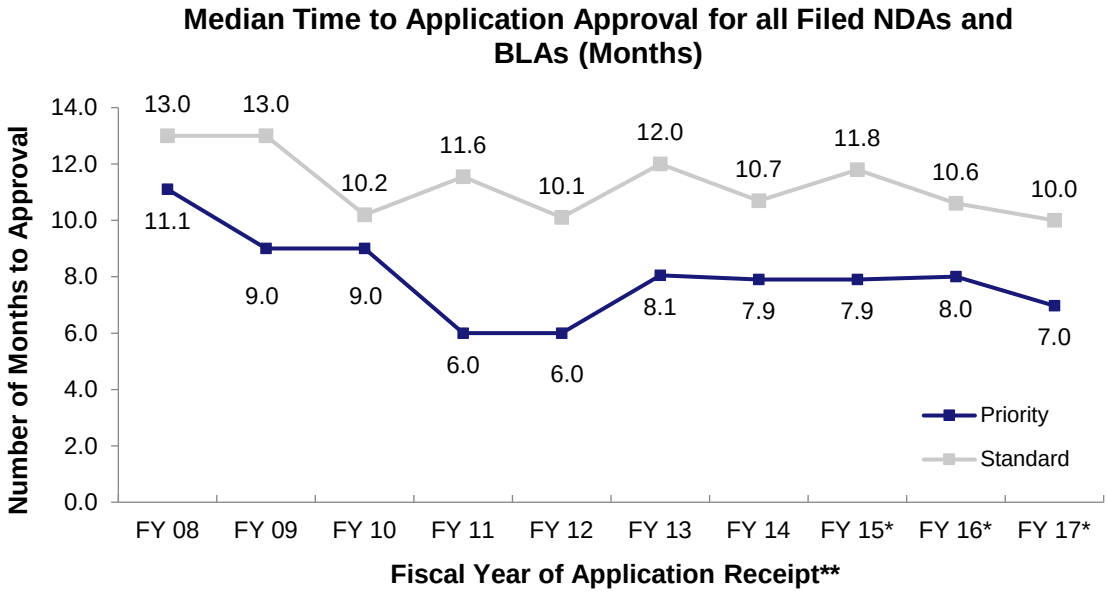
PDUFA Trend Graphs

The number of NDAs and BLAs filed from FY 2009 to FY 2018 is presented in the graph below. The total number of all original applications of NDAs and BLAs filed in FY 2018 was the same as the number filed in FY 2017, and the total number of priority applications filed reached a new high in FY 2018.



* FY 2017 numbers were changed to reflect updates to data presented in the FY 2017 PDUFA performance report.

The median total time to approval for priority and standard applications received from FY 2008 through FY 2017 is presented in the graph below.[8] Data represented in the graph is updated based on the approvals reported in Appendix C. FY 2018 data are too preliminary to estimate the median approval time.

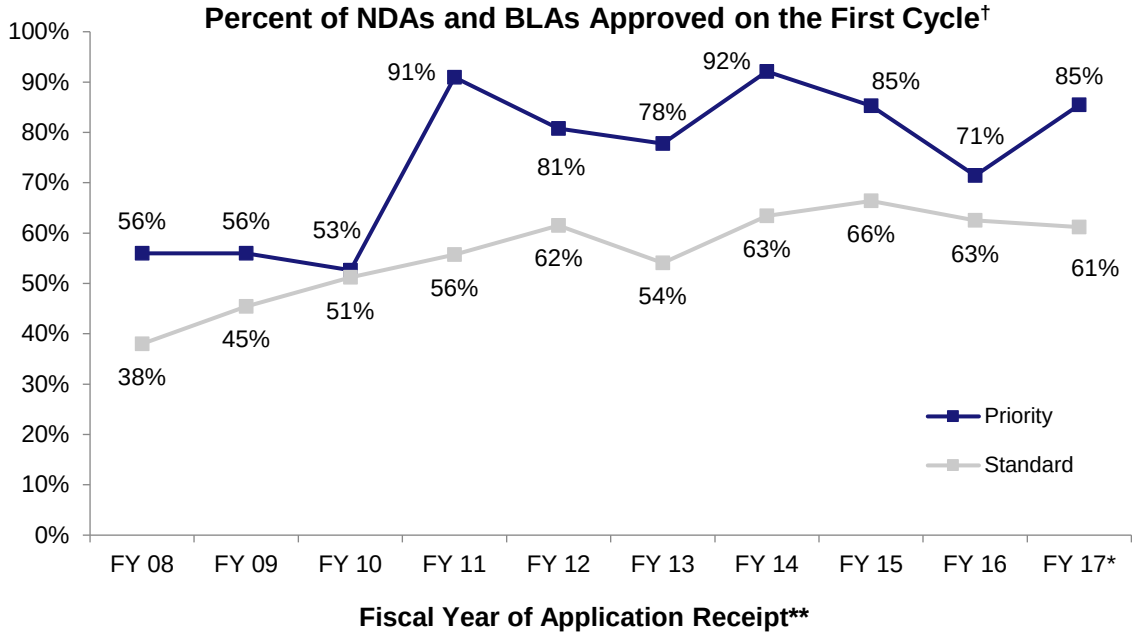


* The median approval times for the three most recent years are estimated.

** Data represented in this graph are based on the approvals reported in Appendix C.

[8] The total time for applications that are approved on the first cycle includes only FDA response time. Applications that are approved after multiple review cycles include both FDA and sponsor time. Median total approval time is the median of all application times for a given cohort, including applications that have gone through multiple review cycles.

The graph below depicts the percentages of priority and standard NDAs and BLAs approved in the first review cycle for the receipt cohorts from FY 2008 to FY 2017. These data are based on the approvals reported in Appendix C. The percentage of standard applications in first-cycle approvals slightly decreased in FY 2016 and FY 2017. For the FY 2017 cohort, which is still preliminary, 61 percent of standard applications were approved on the first cycle. First-cycle approvals for approved priority applications increased in FY 2017, with 85 percent of approved priority applications being approved on the first cycle. The FY 2018 data are too preliminary to estimate the percent of first-cycle approvals.



* First cycle approvals are still possible for FY 2017 standard applications, so the data are preliminary.
† Data were changed to reflect updates to the data presented in the FY 2017 PDUFA performance report.
** Data represented in this graph are based on the approvals reported in Appendix C.

Additional PDUFA VI Commitments

Under Section VI of the PDUFA VI Commitment Letter, FDA committed to report its progress on the specific commitments identified in the following sections of the Commitment Letter:[9]

- Section I.I: Enhancing Regulatory Science and Expediting Drug Development
- Section I.J: Enhancing Regulatory Decision Tools to Support Drug Development and Review
- Section I.K: Enhancement and Modernization of the FDA Drug Safety System
- Section II: Enhancing Management of User Fee Resources
- Section IV: Information Technology Goals

Section I of FDARA further requires FDA to report on the Agency's performance under PDUFA VI.

FDA and industry designed these enhancements to improve the efficiency of drug development and the human drug review process. The progress reports in this section detail the work FDA performed in FY2018 on commitments in Sections I.I-K of PDUFA VI. FDA is also including updates on accomplishments under Section II: Enhancing Management of User Fee Resources and Section IV: Information Technology Goals. The Section II progress reports are duplicated in the FY2018 PDUFA VI financial report. Each accomplishment includes a reference to a specific section of the Commitment Letter. External references are also provided to published guidances, meeting summaries, and other pertinent public information.

FDA is dedicated to the goals outlined in these sections of the Commitment Letter. Where applicable, for each section, additional information is included on other activities FDA has conducted that are not specifically required but further the goals outlined in the Commitment Letter.

[9] www.fda.gov/downloads/ForIndustry/UserFees/PrescriptionDrugUserFee/UCM511438.pdf

Section I.I: Enhancing Regulatory Science and Expediting Drug Development

Commitment Title	FY 2018 Accomplishments
I.I.1 Promoting Innovation Through Enhanced Communication Between FDA and Sponsors During Drug Development	• FDA hired a contractor to perform a third-party assessment of communication between FDA and sponsors during drug development. The contractor initiated the assessment in July 2018 (I.I.1.a).
I.I.2 Ensuring Sustained Success of Breakthrough Therapy Program	• Under the Breakthrough Therapy (BT) Program[10], FDA: o Received 158 BT Designation Requests o Granted 71 BT Designation Requests. o Approved 19 original and 20 supplemental marketing applications for BT Designated products.[11] o Increased OND BT Program-specific FTEs/FY2018 hires to support the continued success of the BT Program. • Under the Regenerative Medicine Advanced Therapies (RMAT) Program, FDA:[12] o Processed 47 Designation Requests, the highest number since program inception in 2016. o Granted 16 RMAT Designation Requests.
I.I.3 Early Consultation on the Use of New Surrogate Endpoints	• FDA is offering Type C meetings to sponsors intending to use a biomarker as a new surrogate endpoint (I.I.3).
I.I.4 Advancing Drug Development of Drugs for Rare Diseases	• The CDER Rare Disease Program[13] held planning meetings with the Center for Biologics Evaluation and Research (CBER) to coordinate efforts in documenting FDA's progress in advancing development of drugs for rare diseases through reviewer training and stakeholder engagement opportunities (I.I.4). • The CDER Rare Diseases Program developed an implementation plan to integrate Rare Diseases Program Staff expertise into review teams for relevant applications (I.I.4). • The CDER Rare Diseases Program has begun tracking IND and NDA meetings involving Rare Disease and Orphan Products (I.I.4). • CBER developed an implementation plan for the Center's Rare Disease Coordinating Committee for activities concerning consideration of regulatory flexibility by review offices in the review of biologics for rare diseases (I.I.4). • European Medicines Agency (EMA)/FDA Rare Disease Cluster meetings were held monthly in FY2018 to discuss rare disease-related protocol assistance and product topics to facilitate alignment across scientific evaluation requirements and drug development. • CBER initiated tracking of rare disease-related outreach activities in FY2018. In FY2018, CBER staff participated in 115 outreach activities intended to support development of biologics

[10] www.fda.gov/RegulatoryInformation/LawsEnforcedbyFDA/SignificantAmendmentstotheFDCAct/FDASIA/ucm329491.htm
[11] Note: BTD Approvals are tracked and posted on the FDA.gov website by calendar year. However, the BT approval numbers included in this PDUFA report are reflective of the 2018 fiscal year.
[12] The RMAT Program expedites development and review for designated regenerative medicine PDUFA products and is often used in lieu of requesting BT designation. www.fda.gov/BiologicsBloodVaccines/CellularGeneTherapyProducts/ucm537670.htm
[13] www.fda.gov/AboutFDA/CentersOffices/OfficeofMedicalProductsandTobacco/CDER/ucm221248.htm

	for rare diseases. These activities included presentations at external meetings (61%), publications (21%), and posters/abstracts (18%) (I.I.4). • In August 2018, CBER co-hosted a 2-day public workshop about gene therapy for rare diseases with the National Center for Advancing Translational Sciences, NIH (1.1.4).[14] • CBER issued three rare disease-related draft guidance documents regarding development of gene therapy products (I.I.4).[15][16][17] • CDER issued a draft guidance regarding early drug development for rare diseases and the role of pre-IND meetings (I.I.4).[18] • The CDER Rare Diseases Program in cooperation with CBER has been involved in the development of many disease area focused guidances with the review teams to ensure consistency of scientific and regulatory approaches. This involvement continues to advance and facilitate the drug approval process (1.1.4). • The CDER Rare Diseases Program in collaboration with CBER held an internal one-day training for FDA review staff on emerging topics in rare diseases with programmatic updates and presentations on applying flexible review approaches (1.1.4). • The CDER Rare Diseases Program (RDP) continued to support the Data Analysis Search Host (DASH) database, which provides rapid access to comprehensive scientific and regulatory data that is not otherwise available from a single source. This data supports analyses of rare and common diseases, NME drug and therapeutic biologic actions, and major efficacy supplements (new indications and/or new populations). The database has improved FDA's understanding of the impact of expedited development programs, informed the expedited programs and the common issues in rare diseases drug development guidances, and supported staff training. The database has proven to be an invaluable resource for evaluation of the impact of the RDP (1.1.4).
I.I.5 Advancing Development of Drug-Device and Biologic-Device Combination Products Regulated by CBER and CDER	• FDA continues to expand hiring and enhance training staff to develop the capacity and capability to review combination products effectively across the centers (I.I.5.a). • FDA completed a lean process map for FDA's combination product review process to help inform and improve FDA's work flow as it pertains to the inter-center consultation process (I.I.5.b.i). • The Combination Product Policy Council at FDA published a charter, and numerous Staff Manual Guides (SMGs) and procedures have been published or revised, including SMG 4103 and revised SMG 4101 (I.I.5.b.iii). • FDA began tracking the Inter-Center Consult (ICC) workload and timelines (I.I.5.b.ii).

[14] ncats.nih.gov/pubs/features/gene-therapy-workshop
[15] www.fda.gov/downloads/BiologicsBloodVaccines/GuidanceComplianceRegulatoryInformation/Guidances/CellularandGeneTherapy/UCM610801.pdf
[16] www.fda.gov/downloads/BiologicsBloodVaccines/GuidanceComplianceRegulatoryInformation/Guidances/CellularandGeneTherapy/UCM610802.pdf
[17] www.fda.gov/downloads/BiologicsBloodVaccines/GuidanceComplianceRegulatoryInformation/Guidances/CellularandGeneTherapy/UCM610803.pdf
[18] www.fda.gov/downloads/Drugs/GuidanceComplianceRegulatoryInformation/Guidances/UCM623293.pdf

	• CBER and CDER have substantially expanded training related to the development, review, and approval of combination products (I.I.5.f), including center specific and cross-center opportunities. • FDA completed and published a draft guidance regarding the submission procedures for human factors protocols entitled "Contents of a Complete Submission for Threshold Analyses and Human Factors Submissions to Drug and Biologic Applications: Draft Guidance for Industry and Staff" (I.I.5.e).[19] • FDA has hired a contractor to perform a third-party assessment of the current state and practices for combination drug product review. The contractor initiated the assessment and has begun data collection (I.I.5.g). • FDA has hired a contractor for development and implementation of the Inter-Center Consult Request (ICCR) Information Technology (IT) enhancements. Development of a new software platform for the ICCR was initiated in summer 2018 (I.I.5.g). • FDA has hired a contractor to provide recommendations on an internal audit framework for combination product review and regulation (I.I.5.g). • FDA has published a proposed list of alternative or streamlined mechanisms for complying with the current good manufacturing practices (CGMP) requirements for combination products.
I.I.6 Enhancing Use of Real World Evidence for Use in Regulatory Decision-Making	• FDA held a public workshop on September 17, 2017, in partnership with the Duke -Margolis Center for Health Policy to gather stakeholder input regarding the use of "real world" evidence in regulatory decision-making[20] and supported a three-series workshop titled "Examining the Impact of Real-World Evidence on Medical Product Development" (I.I.6.a). • FDA continues to evaluate the need for additional meetings (I.I.6.a). • FDA is engaged in several pilot projects aimed at addressing concerns and consideration in the use of RWE for regulatory decision making, including: o Fitness for Use of Electronic Health Records as Source Data for Clinical Research o Effectiveness Research with RWD to Support FDA's Regulatory Decision Making o FDA-Catalyst IMPAC AFib (I.I.6.b.)

[19] www.fda.gov/ucm/groups/fdagov-public/@fdagov-drugs-gen/documents/document/ucm621902.pdf
[20] healthpolicy.duke.edu/events/public-workshop-framework-regulatory-use-real-world-evidence

Section I.J: Enhancing Regulatory Decision Tools to Support Drug Development and Review

Commitment Title	FY 2018 Accomplishments
I.J.1 Enhancing the Incorporation of the Patient's Voice in Drug Development and Decision-Making	• FDA conducted a public workshop, titled "Collecting Comprehensive and Representative Input," to convene a discussion on methodological approaches that a person seeking to collect patient experience data for submission to FDA to inform regulatory decision making may use (I.J.1.b.i). • FDA developed a glossary of standardized nomenclature and terminology and presented it for public comment at the public workshop (I.J.1.b.i). • FDA published a draft guidance titled "Patient-Focused Drug Development: Collecting Comprehensive and Representative Input."[21] This guidance is the first of a series of four methodological guidance documents that FDA committed to develop to address in a stepwise manner how to collect and submit information from patients and caregivers for medical product development and regulatory decision making. FDA opened a public docket to collect feedback on the draft guidance, which will inform the development of guidance (I.J.1.b.i). • FDA began piloting a website, "External Resources and Other Information related to Patient Experiences," that provides links to certain publicly available external reports and resources relating to patient experience data. This webpage is intended to facilitate public discussion of patient-focused drug development and evaluation (I.J.1.c).[22] • FDA had a 2-day public workshop on October 15, 2018, through October 16, 2018, titled "Patient-Focused Drug Development Guidance: Methods to Identify What is Important to Patients and Select, Develop or Modify Fit-for-Purpose Clinical Outcome Assessments" to convene a discussion on methodological approaches that may be used to identify what is most important to patients and caregivers with respect to burden of disease, burden of treatment, and the benefits and risks in the management of the patient's disease; and best practices for selecting, developing or modifying fit-for-purpose Clinical Outcome Assessments (COAs) to measure the patient experience in clinical trials (I.J.1.b.ii-iii).
I.J.2 Enhancing the Benefit-Risk Assessment in Regulatory Decision-Making	• On March 30, 2018, FDA published a PDUFA VI implementation plan, entitled "Benefit-Risk Assessment in Human Drug Review" on the FDA website.[23] This Plan included a report on the progress made during PDUFA V, a summary of the third-party evaluation of the Benefit-Risk Framework implementation conducted in FY2017, and a plan for continued implementation of the Benefit-Risk Framework in FYs 2018-19 (I.J.2.a).[24] • In FY2018, CDER continued implementation of FDA's Benefit-Risk Framework as part of new drug review documentation for NDA and BLA actions, including all NMEs and original BLAs as well as supplemental NDAs and BLAs where benefit-risk assessment is applicable. To facilitate adoption, CDER offered bi-monthly trainings and individual reviewer support (I.J.2.a).

[21] www.fda.gov/downloads/Drugs/GuidanceComplianceRegulatoryInformation/Guidances/UCM610442.pdf
[22] www.fda.gov/Drugs/DevelopmentApprovalProcess/ucm579400.htm
[23] www.fda.gov/downloads/ForIndustry/UserFees/PrescriptionDrugUserFee/UCM602885.pdf
[24] www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/ucm602999.htm

	• In FY2018, CBER completed FDA's Benefit-Risk Framework as part of the clinical review documentation of BLAs and BLA supplements. The Benefit-Risk Framework continues to be addressed in CBER's internal training courses (I.J.2.a). • In October 2017, FDA participated in a meeting convened by Duke-Margolis Center for Health Policy on advancing structured benefit-risk assessment in FDA's drug review.[25] Participants included FDA regulatory decision makers and methodological experts, industry stakeholders, academic researchers, and health systems stakeholders. • In September 2018, CBER led a workshop for the Interagency Risk Assessment Consortium.
I.J.3 Advancing Model-Informed Drug Development	• FDA will develop its regulatory science and review expertise and capacity in model-informed drug development (MIDD) approaches. o FDA performed an environmental assessment of hiring needs and gaps and developed a plan for hiring MIDD specialists in the CDER Office of Clinical Pharmacology and the CBER Office of Biostatistics and Epidemiology (I.J.3.a) o FDA developed and conducted a CDER-wide continuing education program to increase staff competency on MIDD approaches in drug development and regulatory review. CBER provided MIDD training for CBER reviewers o OND Division Tours: The MIDD team met with RPMs from 9 OND divisions to explain the MIDD meeting pilot and discuss opportunities for collaborations. CBER MIDD team met with reviewers to provide an MIDD pilot program overview and discuss opportunities for MIDD approaches o CDER CPMS meeting: The MIDD team met with OND RPM leadership to discuss the MIDD meeting pilot on August 9, 2018 • FDA convened a series of workshops to identify best practices for MIDD. o FDA conducted a public workshop on MIDD in oncology drug development in February 2018. The transcripts from this meeting are publicly available (I.J.3.b)[26] • FDA developed a two-sequence plan to develop MIDD-relevant guidances. In sequence one, existing MIDD guidances in need of revision are revised and/or finalized. In sequence two, internal and external stakeholders are engaged to determine whether new MIDD-related guidances are needed (I.J.3.d) • FDA utilized the FRN mechanism to proactively solicit input from the public prior to revising the guidance, "Guidance for Industry: Exposure-Response Relationships — Study Design, Data Analysis, and Regulatory Applications," a seminal MIDD guidance[27] • Starting in FY2018, FDA launched a pilot program for MIDD approaches. In April 2018, FDA launched the MIDD Meeting Pilot Program (I.J.3.c):

[25] The Duke-Margolis Center for Health Policy convened this meeting under a cooperative agreement with FDA. Information on this meeting is available at healthpolicy.duke.edu/events/advancing-structured-benefit-risk-assessment-fda-review.
[26] www.fda.gov/downloads/Drugs/NewsEvents/UCM608174.pdf
[27] www.federalregister.gov/documents/2018/04/06/2018-07028/exposure-response-analysis-in-drug-development-and-regulatory-decision-making

	○ FDA published a *Federal Register* notice with eligibility criteria and submission procedures for the pilot program[28] ○ FDA developed a process for triaging pilot applications, managing communications with sponsors, regulatory review of meeting materials, and knowledge management ○ FDA instituted the MIDD Selection Committee with members from CDER Office of New Drugs (OND), Office of Clinical Pharmacology (OCP), the Office of Budget (OB), and CBER ○ CDER received seven MIDD meeting requests and granted six over the first two quarters of the MIDD Pilot Program ○ CDER conducted and completed internal and initial sponsor meetings for the inaugural quarter of meeting requests, and ○ CDER completed and disseminated preliminary comments and initial meeting minutes for granted meetings from the inaugural quarter. • FDA established an outward-facing presence for MIDD-related activities via website/videos.[29]
I.J.4 Enhancing Capacity to Review Complex Innovative Designs I.J.5 Enhancing Capacity to Support Analysis Data Standards for Product Development and Review	• FDA conducted a staffing needs assessment and identified necessary software and computing needs to review complex adaptive trial designs (I.J.4.a). • In August 2018, FDA launched a pilot program for select applications using complex adaptive and highly innovative trial designs with the publication of a *Federal Register* notice. The pilot grants participating sponsors early access to meetings with FDA. FDA has defined eligibility criteria, developed submission procedures, and identified members for the review committees of the pilot (I.J.4.b).[30] • FDA conducted a public meeting to discuss the use of adaptive designs in clinical trials in March 2018 (I.J.4.c).[31] • FDA developed and published a draft guidance regarding the use of adaptive designs in clinical trials in September 2018 (I.J.4.d).[32] • FDA started researching options for involvement in external public workshops regarding data standards in clinical trials (I.J.5.d).
I.J.6 Enhancing Drug Development Tools Qualification Pathway for Biomarkers	• FDA began identifying staffing needs for biomarker qualification review (I.J.6.a). • CDER developed grant funding criteria and appropriated $2.5 million to the Critical Path Institute. FDA developed a tracking system to monitor and assess the progress of grant projects. • In partnership with NIH, FDA published an online glossary (the BEST Resource) detailing standard biomarker taxonomy (I.J.6.c).[33] • FDA held a public meeting on Drug Development Tools (DDTs) on December 11, 2018 (I.J.6.b). FDA began revisions to the DDT process guidance and is in the early stages of drafting of a guidance regarding evidentiary standards for biomarkers (I.J.6.d).

[28] www.federalregister.gov/documents/2018/04/17/2018-08010/pilot-meetings-program-for-model-informed-drug-development-approaches
[29] www.fda.gov/Drugs/DevelopmentApprovalProcess/DevelopmentResources/ucm600311.htm
[30] www.fda.gov/Drugs/DevelopmentApprovalProcess/DevelopmentResources/ucm617212.htm
[31] www.fda.gov/Drugs/NewsEvents/ucm587344.htm
[32] www.fda.gov/downloads/Drugs/GuidanceComplianceRegulatoryInformation/Guidances/UCM201790.pdf
[33] www.ncbi.nlm.nih.gov/books/NBK338448/

Section I.K: Enhancement and Modernization of the FDA Drug Safety System

Commitment Title	FY 2018 Accomplishments
I.K.1 Advancing Postmarketing Drug Safety Evaluation Through Expansion of the Sentinel System and Integration into FDA Pharmacovigilance Activities I.K.2 Timely and Effective Evaluation and Communication of Postmarketing Safety Findings Related to Human Drugs	• CBER launched the Biologics Effectiveness and Safety (BEST) initiative, an expansion of the CBER Sentinel Program, to estimate rates of adverse events and conduct safety assessments of biological products. The rollout included a BEST Sentinel Industry Day in February 2018, along with the 10th Annual Sentinel Initiative Public Workshop. • CDER is developing a module to train review staff on the use of the Sentinel System in human drug reviews (I.K.1). • CDER established a working group that developed and delivered recommendations for implementing the new postmarketing safety framework (I.K.2.a). • The Safety First Implementation Team drafted a revised Mannual of Policies and Procedures (MAPP) document, established a workgroup to plan the pilot (recruitment, training, Access database, and evaluation and communication plans), trained pilot participants, and has begun piloting a postmarketing safety signals tracking system (I.K.2.a). • FDA created a working group to update existing policies and procedures regarding notification to sponsors and the public of postmarketing safety signals (I.K.2.b).

Section II: Enhancing Management of User Fee Resources

Commitment Title	FY 2018 Accomplishments
II.A Resource Capacity Planning and Modernized Time Reporting	• FDA worked with a third-party contractor to assess FDA's options in the design and development of a capacity planning function and modernized time reporting. As a result of that work, FDA published the "Resource Capacity Planning & Modernized Time Reporting Implementation Plan" in March 2018 (II.A.1).[34] • FDA established a resource capacity team and started staffing the team.
II.B Financial Transparency and Efficiency	• FDA hired an independent contractor to conduct the evaluation of FDA's management of user fee resources during FY2018. FDA expects the results from the assessment will be published in FY 2019 (II.B.1). • FDA published a report titled "Five-Year Financial Plan for PDUFA" in March 2018. The report details FDA's expected financial position during PDUFA VI (II.B.2).[35]

[34] www.fda.gov/downloads/ForIndustry/UserFees/UCM602884.pdf
[35] www.fda.gov/downloads/AboutFDA/ReportsManualsForms/Reports/UserFeeReports/UserFeeFiveYearFinancialPlans/UCM603106.pdf

Section III: Improving FDA Hiring and Retention of Review Staff

Commitment Title	FY 2018 Accomplishments
III.A Completion of Modernization of the Hiring System Infrastructure and Augmentation of System Capacity	• FDA is working with HHS to deploy the Position-Based Management System in the Enterprise Human Capital Management System. • FDA went live with a position classification system in June 2017 and expanded to more users through December 2017. • FDA transitioned from using individual announcements that are posted for a limited period to common vacancy announcements with open continuous posting to maximize the opportunity for qualified applicants to apply for positions in key scientific and technical disciplines.
III.B Augmentation of Hiring Staff Capacity and Capability	• FDA awarded a 5-year, multi-award contract on 7/7/2017 to provide HR support services for FDA.
III.C Complete Establishment of a Dedicated Function to Ensure Needed Scientific Staffing for Human Drug Review Program	• FDA established a new scientific staffing function focused on continued recruitment, staffing, and retention of scientific, technical, and professional staff.
III.D Set Clear Goals for Human Drug Review Program Hiring	• FDA's FY 2018 hiring goal was for 71 FTEs, and 63 FTEs were onboarded (89 percent of PDUFA VI hiring goals).[36]
III.E Comprehensive and Continuous Assessment of Hiring and Retention	• The report of the initial assessment, prepared by a contractor, was published on November 15, 2017, and the public meeting to present the findings of that report was held on November 30, 2017. The interim assessment planning is underway and on schedule.

[36] www.fda.gov/ForIndustry/UserFees/PrescriptionDrugUserFee/ucm604305.htm

Section IV: Information Technology Goals

Goal	FY 2018 Accomplishments
Improve the Predictability and Consistency of PDUFA Electronic Submission Processes	• FDA published targets for, and to measure, Electronic Submissions Gateway (ESG) availability overall (including scheduled downtime) and during business hours (8 a.m. to 8 p.m. Eastern Time). ESG availability is defined for the purposes of the Commitment Letter as "the ability for an external user to complete a submission from each entry point to its delivery to the appropriate FDA Center." • Final Submission upload status to sender-designated contact (e.g., successfully processed or rejected) became operational. • FDA posted current ESG operational status on its public website. • FDA published submission instructions to use in the event of an ESG service disruption.
Enhance Transparency and Accountability of FDA Electronic Submission and Data Standards Activities	• FDA held a public meeting on electronic submissions and data standards on July 10, 2018. • FDA held quarterly meetings with industry. • FDA posted a Data Standards Action Plan quarterly. • FDA posted updates to the FDA Data Standards Catalog.

Additional PDUFA VI Review Program Reporting

Hiring and Placement of New PDUFA VI Staff at FDA

FY 2018 hiring and placement of new staff at FDA under PDUFA VI is reported on a quarterly basis and posted on FDA's PDUFA performance webpage.[37] Starting in FY 2020, FDA will report its progress in hiring new staff to support new initiatives in the annual PDUFA financial report, as per the PDUFA VI Commitment Letter.

Program Quality Metrics

The tables below provide information on FY 2017 applications that had a completed first action reviewed under the Program as of September 30, 2018. These counts capture the Program milestones completed for applications received in the listed fiscal year. Program quality metrics are no longer required under PDUFA VI, and therefore only FY 2017 metrics are reported.

Quality System Metric	FY 2017
Applications Filed with a First Action	58
Pre-NDA/BLA Meetings Held	52
Applications with Agreement on Complete Application	43
Applications with Agreement on Late Component Submission	19
74-Day Letters Issued	57
Mid-Cycle Communications	56
Primary Reviews Completed	299
Secondary Reviews Completed	70
Late Cycle Meeting Packages	55
Late Cycle Meetings Held	49
Discipline Review Letters Issued	1

Disciplines Referenced in Discipline Review Letters

	FY 2017
Clinical	0
Clinical Pharmacology	0
Nonclinical	0
Quality	1
Statistical	0

[37] www.fda.gov/ForIndustry/UserFees/PrescriptionDrugUserFee/ucm604305.htm

Appendices

Appendix A: Final FY 2017 Cohort Performance Detail

The following tables detail the final performance for the FY 2017 cohort of submissions. These data include the number of submissions reviewed *on time* (acted on by the PDUFA goal date) or *overdue* (acted on past goal or pending past the goal date) and the final *percent on time* (final performance with no actions pending within the PDUFA goal date). The performance data presented here have been updated from the preliminary performance information reported in the FY 2017 PDUFA performance report.

Review Goal Performance

Products Reviewed Under the PDUFA NME Review Program

The table below represents NME NDAs and original BLAs that were reviewed under the NME NDA and Original BLA Program (the Program). Applications that were received as NME NDAs may not retain that status upon final action. For example, this can occur when an applicant submits two separate applications for the same NME at the same time or a second application while the first application is still under review. Both applications would be reviewed under the Program, though upon approval of either application as an NME, the second one would no longer be considered an NME. However, since both applications were reviewed under the Program, they are included in this table. In addition, although the Program only applies to NME NDAs and original BLAs, there is the potential that when there are multiple applications for the same NME, the second NME application could convert to an efficacy supplement upon approval of the first NME application. Because these applications would be reviewed under the Program, they are included as efficacy supplements in the table below. Furthermore, some applications that were submitted as original BLAs under existing FDA guidance may not be considered novel products to which the Program is targeted. In such cases, these original BLAs were not reviewed in the Program. For the reasons described in this paragraph, the figures in the table below may differ from the figures provided under the original application counts used for performance goal tracking elsewhere in this report.

There are no performance goals associated specifically with the Program, though each Program application falls under other performance goals according to its application type. As of September 30, 2018, 100 percent of FY 2017 cohort applications in the Program were reviewed within their PDUFA goal timelines.

Products Reviewed Under PDUFA V Program

Application Type (Final Designation)	Filed	On Time	Overdue	Pending Within Goal
Priority NDAs and BLAs	33	33	0	0
Standard NDAs and BLAs	22	22	0	0
Priority Efficacy Supplements*	3	3	0	0
Standard Efficacy Supplements*	0	0	0	0
Total Program Performance	58	58	0	0

* Some applications that are submitted as NME NDAs may be considered efficacy supplements at the time of approval.

Original Applications

Original Application Type	Goal: Act on 90 Percent Within	Filed	On Time	Overdue	Percent on Time
Priority NMEs & BLAs	6 months of filing date	31	31	0	100%
Standard NMEs & BLAs	10 months of filing date	22	22	0	100%
Priority Non-NME NDAs	6 months	24	24	0	100%
Standard Non-NME NDAs	10 months	81	79	1	99%*

* One NDA is pending within goal as of September 30, 2018.

Resubmitted Original Applications

Resubmitted Application Type	Goal: Act on 90 Percent Within	Filed	On Time	Overdue	Percent on Time
Class 1	2 months	8	7	1	88%
Class 2	6 months	49	47	2	96%

Efficacy Supplements

Efficacy Supplement Type	Goal: Act on 90 Percent Within	Filed	On Time	Overdue	Percent on Time
Priority	6 months	78	78	0	100%
Standard	10 months	173	161	8	95%*

* Four efficacy supplements are pending within goal as of September 30, 2018.

Resubmitted Efficacy Supplements

Resubmitted Efficacy Supplement Type	Goal: Act on 90 Percent Within	Received	On Time	Overdue	Percent on Time
Class 1	2 months	3	3	0	100%
Class 2	6 months	11	11	0	100%

Manufacturing Supplements

Manufacturing Supplement Type	Goal: Act on 90 Percent Within	Filed	On Time	Overdue	Percent on Time
Prior Approval Required	4 months	968	937	31	97%
Prior Approval Not Required	6 months	1,540	1,507	33	98%

Procedural and Processing Goal Performance

Meeting Management

Type	Goal: 90 Percent	Received*	On Time	Overdue	Percent on Time
Type A Meeting Requests	Respond within 14 days	175	158	17	90%
Type B Meeting Requests	Respond within 21 days	1,850	1,700	150	92%
Type C Meeting Requests	Respond within 21 days	1,391	1,278	113	92%
Type A Meetings Scheduled†	Schedule within 30 days	159	119	40	75%
Type B Meetings Scheduled	Schedule within 60 days	1,293	895	398	69%
Type C Meetings Scheduled	Schedule within 75 days	660	506	154	77%
Type B Written Response	Respond within 60 days	482	371	111	77%
Type C Written Response	Respond within 75 days	652	551	101	85%
Meeting Minutes	Issue within 30 days after meeting date	1,679	1,557	122	93%

* Not all meeting requests are granted; therefore, the number of meetings scheduled may differ from the number of meeting requests received. Not all scheduled meetings are held; therefore, the number of meeting minutes may differ from the number of meetings scheduled.

Responses to Clinical Holds

Goal	Received	On Time	Overdue	Percent on Time
Respond to 90 percent within 30 days	193	180	13	93%

Major Dispute Resolutions

Goal	Responses*	On Time	Overdue	Percent on Time
Respond to 90 percent within 30 days	20	19	1	95%

* This figure represents the number of FDA-generated 30-day responses to requests for review that have been received. It is not representative of the number of unique appeals received that have been reviewed, as there may be more than one response to an original appeal.

Special Protocol Assessments

Goal	Received	On Time	Overdue	Percent on Time
Respond to 90 percent within 45 days	173	165	8	95%

Special Protocol Assessment Resubmissions

SPAs with Resubmissions	Applications with 1 Resubmission	Applications with 2 Resubmissions	Applications with 3 Resubmissions	Total Resubmissions
33	28	4	1	39

Drug/Biological Product Proprietary Names

Submission Type	Goal: 90 Percent	Received	On Time	Overdue	Percent on Time
Submitted During IND Phase	Review within 180 days	176	175	1	99%
Submitted with NDA/BLA	Review within 90 days	255	252	3	99%

First-Cycle Filing Review Notifications

Notification Type	Goal: 90 Percent	Filed	On Time	Overdue	Percent on Time
NDAs and BLAs	Issue within 74 days	155	149	6	96%
Efficacy Supplements	Issue within 74 days	160	152	8	95%

Notification of Planned Review Timelines

Application Type	Applications Filed*	In 74-Day Letter	Not In 74-Day Letter	Percent In 74-Day Letters
NDAs and BLAs	155	153	2	99%
Efficacy Supplements	157†	156	1	99%

* The number of original applications filed in any given year may not match the number of first-cycle notifications due to the status of an application at the time the data are reported.

† Three efficacy supplements were never issued 74-day letters and were not included in calculations of final performance.

Appendix B: Preliminary FY 2018 Cohort Performance Detail

The following detailed performance information for FY 2018 cohort submissions includes the number of submissions filed, reviewed *on time* (acted on by the PDUFA goal date), and *overdue* (acted on past goal or pending past the goal date). The number of submissions not yet acted on but still pending within the PDUFA goal date (*pending within goal*) is also provided, along with the highest possible percent of reviews that may be completed on time.

Review Goal Performance

Products Reviewed Under the PDUFA NME Review Program

The table below represents NME NDAs and original BLAs that were reviewed under the NME NDA and Original BLA Program (the Program). Applications that were received as NME NDAs may not retain that status upon final action. For example, this can occur when an applicant submits two separate applications for the same NME at the same time or while the first application is still under review. Both applications would be reviewed under the Program, though upon approval of either application as an NME, the second one would no longer be considered an NME. However, since both applications were reviewed under the Program, they are included in this table for Program analysis. In addition, although the Program only applies to NME NDAs and original BLAs, there is the potential that when there are multiple applications for the same NME, the second NME application could convert to an efficacy supplement upon approval of the first NME application, if it is the same applicant and application. Because these applications would be reviewed under the Program, they are included as efficacy supplements in the table below. Furthermore, some applications that were submitted as original BLAs under existing FDA guidance may not be considered novel products to which the Program is targeted. In such cases, these original BLAs were not reviewed in the Program. For the reasons described in this paragraph, the figures in the table below may differ from the figures provided under the original application counts used for performance goal tracking elsewhere in this report.

There are no performance goals associated specifically with the Program, though each Program application falls under other performance goals according to its application type. As of September 30, 2018, all FY 2018 cohort applications in the Program are being reviewed within their PDUFA goal timelines.

Products Reviewed Under PDUFA Program

Application Type (Final Designation)	Filed	On Time	Overdue	Pending Within Goal
Priority NDAs and BLAs	50	24	0	26
Standard NDAs and BLAs	22	2	0	20
NDAs and BLAs Review Priority Undesignated*	1	0	0	1
Priority Efficacy Supplements†	2	2	0	0
Standard Efficacy Supplements†	0	0	0	0
Efficacy Supplements Review Priority Undesignated	0	--	--	--
Total Program Performance	75	28	0	47

* These applications have not reached the 60-day filing date and have not yet received a review priority designation.
† Some applications that are submitted as NME NDAs may be considered efficacy supplements at the time of approval.

Original Applications

Application Type	Goal: Act on 90 Percent Within	Filed	On Time	Overdue	Pending Within Goal	Current Percent on Time	Highest Possible Percent on Time
Priority NMEs & BLAs	6 months of filing date	50	22	0	28	100%	100%
Standard NMEs & BLAs	10 months of filing date	23	1	0	22	100%	100%
Priority Non-NME NDAs	6 months	12	10	0	2	100%	100%
Standard Non-NME NDAs	10 months	64	12	0	52	100%	100%
Review Priority Undesignated*	N/A	9	--	--	9	--	--
Total		158	45	0	113	--	--

* These applications have not reached the 60-day filing date and have not yet received a review priority designation.

Resubmitted Original Applications

Resubmitted Application Type	Goal: Act on 90 Percent Within	Received	On Time	Overdue	Pending Within Goal	Current Percent on Time	Highest Possible Percent on Time
Class 1	2 months	9	7	1	1	88%	89%
Class 2	6 months	50	25	1	24	96%	98%

Efficacy Supplements

Efficacy Supplement Type	Goal: Act on 90 Percent Within	Filed	On Time	Overdue	Pending Within Goal	Current Percent on Time	Highest Possible Percent on Time
Priority	6 months	77	53	0	24	100%	100%
Standard	10 months	147	43	1	103	98%	99%
Review Priority Undesignated*	N/A	32	--	--	32	--	--

* These applications have not reached the 60-day filing date and have not yet received a review priority designation.

Resubmitted Efficacy Supplements

Resubmitted Efficacy Supplement Type	Goal: Act on 90 Percent Within	Received	On Time	Overdue	Pending Within Goal	Current Percent on Time	Highest Possible Percent on Time
Class 1	2 months	3	2	0	1	100%	100%
Class 2	6 months	10	5	0	5	100%	100%

Manufacturing Supplements

Manufacturing Supplement Type	Goal: Act on 90 Percent Within	Filed	On Time	Overdue	Pending Within Goal	Current Percent on Time	Highest Possible Percent on Time
Prior Approval Required	4 months	1,020	613	25	382	96%	98%
Prior Approval Not Required	6 months	1,506	933	19	554	98%	99%
Review Priority Undesignated	N/A	0	--	--	--	--	--

Procedural and Processing Goal Performance

Meeting Management

Type	Goal: 90 Percent	Received*	On Time	Overdue	Pending Within Goal	Current Percent on Time	Highest Possible Percent on Time
Type A Meeting Requests†	Respond within 14 days	223	134	33	56	80%	85%
Type B Meeting Requests	Respond within 21 days	1,571	1,396	154	21	90%	90%
Type B (EOP) Meeting Requests	Respond within 14 days	334	261	70	3	79%	79%
Type C Meeting Requests	Respond within 21 days	1,364	1,219	115	30	91%	92%
Type A Meetings Scheduled†	Schedule within 30 days	203	93	43	67	68%	79%
Type B Meetings Scheduled	Schedule within 60 days	927	547	336	44	62%	64%
Type B (EOP) Meetings Scheduled	Schedule within 70 days	315	228	78	9	75%	75%
Type C Meetings Scheduled	Schedule within 75 days	635	440	156	39	74%	75%
Type A Written Response	Respond within 60 days	7	4	2	1	67%	71%
Type B Written Response	Respond within 70 days	565	381	114	70	77%	80%
Type B (EOP) Written Response	Respond within 75 days	15	7	5	3	58%	67%
Type C Written Response	Respond within 30 days	657	464	77	116	86%	88%

Type	Goal: 90 Percent	Received*	On Time	Overdue	Pending Within Goal	Current Percent on Time	Highest Possible Percent on Time
Preliminary response for Type B (EOP) Meetings	Issue within 5 days prior to meeting date	289	193	34	62	85%	88%
Meeting Minutes	Issue within 30 days after meeting date	1,521	998	103	420	91%	93%

* Not all meeting requests are granted; therefore, the number of meetings scheduled may differ from the number of meeting requests received. Not all scheduled meetings are held; therefore, the number of meeting minutes may differ from the number of meetings scheduled.

† Some meeting requests and subsequent scheduling of meetings are for requests where the type cannot be initially determined. There were 80 undesignated meetings included as Type A meeting requests and scheduled in the table above. Performance in all categories will change once designations are made for these requests and scheduling and will be updated in the FY 2019 PDUFA performance report.

Responses to Clinical Holds

Goal	Received	On Time	Overdue	Pending Within Goal	Current Percent on Time	Highest Possible Percent on Time
Respond to 90 percent within 30 days	202	179	11	12	94%	95%

Major Dispute Resolutions

Goal	Responses*	On Time	Overdue	Pending Within Goal	Current Percent on Time	Highest Possible Percent on Time
Respond to 90 percent within 30 days	23	22	0	1	100%	100%

* This figure represents the number of FDA-generated 30-day responses to requests for review that have been received. It is not representative of the number of unique appeals received that have been reviewed, as there may be more than one response to an original appeal.

Special Protocol Assessments

Goal	Received	On Time	Overdue	Pending Within Goal	Current Percent on Time	Highest Possible Percent on Time
Respond to 90 percent within 45 days	161	143	6	12	96%	96%

Special Protocol Assessment Resubmissions

SPAs with Resubmissions	Applications with 1 Resubmission	Applications with 2 Resubmissions	Applications with 3 Resubmissions	Applications with 4 Resubmissions	Total Resubmissions
28	22	5	0	1	36

Drug/Biological Product Proprietary Names

Submission Type	Goal: 90 Percent	Received	On Time	Overdue	Pending Within Goal	Current Percent on Time	Highest Possible Percent on Time
Proprietary Names Submitted During IND Phase	Review within 180 days	159	85	1	73	99%	99%
Proprietary Names Submitted with NDA/BLA	Review within 90 days	226	193	1	32	99%	100%

Appendix C: List of Approved Applications

This appendix includes the detailed review histories of the NDA and BLA submissions approved under PDUFA VI in FY 2018. Approvals are grouped by priority designation and submission year and listed in order of total approval time. Approval time is presented in months and includes each review cycle's time with FDA, time with the sponsor, and the total time on that application.

Review histories of NDA and BLA submissions approved prior to FY 2018 can be found in the appendices of the earlier PDUFA performance reports available at: www.fda.gov/AboutFDA/ReportsManualsForms/Reports/UserFeeReports/PerformanceReports/ucm2007449.htm

Please note: When determining total time, FDA calculates the number of months and rounds to the nearest tenth. Therefore, when cycle times are added, rounding discrepancies can occur.

Because months consist of varying numbers of days, FDA uses the average number of days in a month to calculate review time in months. Therefore, a submission may appear overdue even though it was approved on the goal date. For example, the submission *PREVYMIS (letermovir)* on page C-4 was received on 03/08/2017 and had an 8-month review goal date of 11/08/2017 as it was reviewed under the Program and had priority review. FDA approved the submission on the goal date, but because FDA uses the average number of days in a month to calculate months, the time taken to review the submission is reported as 8.1 months and the review appears overdue.

Terms and Coding Used in Tables

Action Codes:

AE = Approvable
AP = Approved
CR = Complete Response
NA = Not Approvable
TA = Tentative Approval
WD = Withdrawn

▲ Denotes Class 1 Resubmission (2 month review-time goal)

△ Denotes Class 2 Resubmission (6 month review-time goal)

◊ Expedited review and TA of an NDA by FDA for fixed dose combinations and co-packaged antiretroviral medications as part of the President's Emergency Plan for AIDS Relief (PEPFAR)

♦ Application reviewed under the Program with review goals starting from the 60-day filing date, rather than the submission date

♯ Major amendment was received, which extended the action goal date by 3 months [Note: Under PDUFA VI, a major amendment can be received anytime during the review cycle and extend the goal date by 3 months. If the review cycle occurred prior to FY 2013, the major amendment must have been received within 3 months of the action due date to extend the action goal date by 3 months].

Table 1: FY 2018 Priority NDA and BLA Approvals (by FY of Receipt)

Proprietary Name (established name)	Applicant	NME (Y/N)	Review Cycle	Cycle Time (mos.)	Cycle Result	Total Time (mos.)	Goal Met
Submitted in FY 2018							
Atropine	Rafa Laboratories Ltd.	N	First	0.4	AP	0.4	Y
Erleada (Apalutamide)	Janssen Biotech Inc.	Y	First	4.2	AP	4.2	Y♦
Dolutegravir, Lamivudine, and Tenofovir Disoproxil Fumarate	Hetero Labs Ltd. Unit III	N	First	5.6	TA	5.6	Y◊
Lopinavir and Ritonavir	Mylan Laboratories Ltd.	N	First	5.7	TA	5.7	Y◊
Orkambi (Lumacaftor/Ivacaftor)	Vertex Pharmaceuticals Inc.	N	First	6.0	AP	6.0	Y
Arikayce (Amikacin Liposome Inhalation Suspension)	Insmed Inc.	N	First	6.1	AP	6.1	Y
Tibsovo (Ivosidenib)	Agios Pharmaceuticals Inc.	Y	First	6.9	AP	6.9	Y♦
Diacomit (Stiripentol)	Biocodex S.A.	N[38]	First	7.0	AP	7.0	Y♦
Libtayo (Cemiplimab-Rwlc)	Regeneron Pharmaceuticals, Inc.	Y	First	7.0	AP	7.0	Y♦
Mulpleta (Lusutrombopag)	Shionogi Inc.	Y	First	7.1	AP	7.1	Y♦
Tpoxx (Tecovirimat)	Siga Technologies Inc.	Y	First	7.2	AP	7.2	Y♦
Lumoxiti (Moxetumomab Pasudotox-Tdfk)	Astrazeneca A.B.	Y	First	7.5	AP	7.5	Y♦
Copiktra (Duvelisib)	Verastem Inc.	Y	First	7.6	AP	7.6	Y♦
Omegaven (Fish Oil Triglycerides)	Fresenius Kabi USA LLC	Y	First	7.8	AP	7.8	Y♦
Galafold (Migalastat)	Amicus Therapeutics US Inc.	Y	First	7.9	AP	7.9	Y♦
Epidiolex (Cannabidiol)	GW Research Ltd.	Y	First	7.9	AP	7.9	Y♦
Krintafel (Tafenoquine)	GlaxoSmithKline Intellectual Property Development Ltd. England	Y	First	7.9	AP	7.9	Y♦
Takhzyro (Lanadelumab-Flyo)	Dyax Corp.	Y	First	7.9	AP	7.9	Y♦
Vizimpro (Dacomitinib)	Pfizer Inc.	Y	First	7.9	AP	7.9	Y♦
Diacomit (Stiripentol)	Biocodex S.A.	Y	First	8.0	AP	8.0	Y♦
Zemdri (Plazomicin)	Achaogen Inc.	Y	First	8.0	AP	8.0	Y♦
Oxervate (Cenegermin-Bkbj)	Dompe Farmaceutici S.P.A.	Y	First	8.0	AP	8.0	Y♦
Moxidectin	Medicines Development for Global Health	Y	First	8.0	AP	8.0	Y♦

[38] The applicant submitted two NDAs for the same moiety but different dosage forms (capsule vs. suspension), and only one retains the NME designation upon approval; in this case, the NDA for the capsule form retained the NME designation.

Proprietary Name (established name)	Applicant	NME (Y/N)	Review Cycle	Cycle Time (mos.)	Cycle Result	Total Time (mos.)	Goal Met
Onpattro (Patisiran)	Alnylam Pharmaceuticals Inc.	Y	First	8.0	AP	8.0	Y♦
Xerava (Eravacycline)	Tetraphase Pharmaceuticals Inc.	Y	First	8.0	AP	8.0	Y♦
Azedra (Iobenguane I 131)	Progenics Pharmaceuticals Inc.	N	First	9.0	AP	9.0	Y♯
Poteligeo (Mogamulizumab-Kpkc)	Kyowa Kirin Inc.	Y	First	10.1	AP	10.1	Y♦♯
Ajovy (Fremanezumab-Vfrm)	Teva Branded Pharmaceutical Products R&D Inc.	Y	First	10.9	AP	10.9	Y♦♯
Submitted in FY 2017							
Calquence (Acalabrutinib)	Astrazeneca UK Ltd.	Y	First	4.6	AP	4.6	Y♦
Hemlibra (Emicizumab-Kxwh)	Genentech Inc.	Y	First	4.8	AP	4.8	Y♦
Imbruvica (Ibrutinib)	Pharmacyclics LLC.	N	First	5.6	AP	5.6	Y
Juluca (Dolutegravir and Rilpivirine)	ViiV Healthcare Co.	N	First	5.7	AP	5.7	Y
Giapreza (Angiotensin II)	La Jolla Pharma LLC.	Y	First	5.8	AP	5.8	Y♦
Firvanq (Vancomycin Hydrochloride)	RXMTM Therapeutics LLC. A Wholly Owned Sub of Cutispharma Inc	N	First	6.0	AP	6.0	Y
Dolutegravir, Emtricitabine, and Tenofovir Alafenamide Tablet	Mylan Laboratories Ltd.	N	First	6.0	TA	6.0	Y◊
Tekturna (Aliskiren)	Noden Pharma DAC	N	First	6.0	AP	6.0	Y
Sincalide	MAIA Pharmaceuticals Inc.	N	First	6.0	TA	6.0	Y
Sublocade (Buprenorphine)	Indivior Inc.	N	First	6.1	AP	6.1	Y
Yescarta (Axicabtagene Ciloleucel)	Kite Pharma Inc.	Y	First	6.6	AP	6.6	Y
Luxturna (Voretigene Neparvovec)	Spark Therapeutics Inc.	Y	First	7.1	AP	7.1	Y
Symdeko (Tezacaftor/Ivacaftor)	Vertex Pharmaceuticals Inc.	Y	First	7.5	AP	7.5	Y♦
Lucemyra (Lofexidine)	US Worldmeds LLC.	Y	First	7.6	AP	7.6	Y♦
Biktarvy (Bictegravir, Emtricitabine, and Tenofovir Alafenamide)	Gilead Sciences Inc.	Y	First	7.9	AP	7.9	Y♦
Mepsevii (Vestronidase Alfa-Vjbk)	Ultragenyx Pharamceutical Inc.	Y	First	8.0	AP	8.0	Y♦
Crysvita (Burosumab-Twza)	Ultragenyx Pharamceutical Inc.	Y	First	8.0	AP	8.0	Y♦
Doptelet (Avatrombopag)	Akarx Inc.	Y	First	8.0	AP	8.0	Y♦

Proprietary Name (established name)	Applicant	NME (Y/N)	Review Cycle	Cycle Time (mos.)	Cycle Result	Total Time (mos.)	Goal Met
Arakoda (Tafenoquine)	60 Degrees Pharmaceuticals LLC.	N[39]	First	8.0	AP	8.0	Y♦
Prevymis (Letermovir)	Merck Sharp and Dohme Corp.	Y	First	8.1	AP	8.1	Y♦
Prevymis (Letermovir)	Merck Sharp and Dohme Corp.	N[40]	First	8.1	AP	8.1	Y♦
Trogarzo (Ibalizumab)	Theratechnologies Inc.	Y	First	10.1	AP	10.1	Y♦ ♯
Palynziq (Pegvaliase-Pqpz)	Biomarin Pharmaceutical Inc.	Y	First	10.8	AP	10.8	Y♦ ♯
Orilissa (Elagolix Sodium)	Abbvie Inc.	Y	First	11.0	AP	11.0	Y♦ ♯
Submitted in FY 2016							
Siklos (Hydroxyurea)	Addmedica S.A.S.	N	First	6.4	CR	6.4	Y♯
			Sponsor	4.6		11.0	
			Second	5.7	AP	16.7	YΔ
Symfi Lo (Efavirenz, Lamivudine and Tenofovir Disoproxil Fumarate)	Mylan Pharmaceuticals Inc.	N	First	5.9	TA	5.9	Y◊
			Sponsor	4.5		10.4	
			Second	6.4	AP	16.8	NΔ◊
Atazanavir and Ritonavir	Cipla Ltd.	N	First	5.8	CR	5.8	Y◊
			Sponsor	6.4		12.2	
			Second	6.0	TA	18.2	YΔ◊
Lutathera (Lutetium Lu 177 Dotatate)	Advanced Accelerator Applications USA Inc.	Y	First	7.7	CR	7.7	Y♦
			Sponsor	7.2		14.9	
			Second	6.1	AP	21.0	YΔ
Altafluor Benox (Fluorescein Sodium and Benoxinate Hydrochloride Ophthalmic Solution)	Altaire Pharmaceuticals Inc.	N	First	6.0	CR	6.0	Y
			Sponsor	12.2		18.2	
			Second	5.6	AP	23.8	YΔ
Apadaz (Acetaminophen and Benzhydrocodone)	Kempharm Inc.	N	First	6.1	CR	6.1	N
			Sponsor	14.4		20.5	
			Second	6.1	AP	26.6	YΔ
Andexxa (Coagulation Factor Xa (Recombinant), Inactivated-Zhzo)	Portola Pharmaceuticals	*Y*	First	8.0	CR	8.0	Y
			Sponsor	11.6		19.6	
			Second	9.0	AP	28.5	YΔ♯
Submitted in FY 2013							
Jynarque (Tolvaptan)	Otsuka Pharmaceutical Co. Ltd.	N	First	5.9	CR	5.9	Y
			Sponsor	49.9		55.8	
			Second	6.0	AP	61.8	YΔ

[39] Non-NME NDA reviewed under the PDUFA V Program. At time of receipt, the active ingredient Tafenoquine had never been approved in the United States, allowing for NME designation; however, at time of approval, Tafenoquine had already been approved for marketing in another application, causing this application to lose its NME designation.
[40] The applicant submitted two NDAs for the same moiety but different dosage forms (tablet vs. injection), and only one retains the NME designation upon approval; in this case, the NDA for the tablet form retained the NME designation.

Proprietary Name (established name)	Applicant	NME (Y/N)	Review Cycle	Cycle Time (mos.)	Cycle Result	Total Time (mos.)	Goal Met
Submitted in FY 2009							
Symfi (Efavirenz, Lamivudine and Tenofovir Disoproxil Fumarate)	Mylan Laboratories Ltd.	N	First	6.1	TA	6.1	Y◊
			Sponsor	96.7		102.8	
			Second	6.0	AP	108.8	YΔ◊
Submitted in FY 2008							
Cimduo (Lamivudine and Tenofovir Disoproxil Fumarate)	Mylan Laboratories Ltd.	N	First	6.0	TA	6.0	Y◊
			Sponsor	107.7		113.7	
			Second	6.0	AP	119.7	YΔ◊

Table 2: **FY 2018 Standard NDA and BLA Approvals (by FY of Receipt)**

Proprietary Name (established name)	Applicant	NME (Y/N)	Review Cycle	Cycle Time (mos.)	Cycle Result	Total Time (mos.)	Goal Met
Submitted in FY 2018							
Tiglutik (Riluzole)	Italfarmaco S.P.A.	N	First	9.6	AP	9.6	Y
Altreno (Tretinoin)	Dow Pharmaceutical Sciences Inc.	N	First	9.9	AP	9.9	Y
Seizalam (Midazolam Injection)	Meridian Medical Technologies Inc.	N	First	9.9	AP	9.9	Y
Inveltys (Loteprednol Etabonate Ophthalmic Suspension)	Kala Pharmaceuticals Inc.	N	First	10.0	AP	10.0	Y
Sympazan (Clobazam)	Aquestive Therapeutics	N	First	10.0	TA	10.0	Y
Cequa (Cyclosporine Ophthalmic Solution)	Sun Pharma Global FZE	N	First	10.0	AP	10.0	Y
Tigecycline	Amneal Pharmaceuticals LLC.	N	First	10.0	AP	10.0	Y
Pifeltro (Doravirine)	Merck Sharp and Dohme Corp a Sub of Merck and Co. Inc.	Y	First	10.2	AP	10.2	Y♦
Delstrigo (Doravirine, Lamivudine, and Tenofovir Disoproxil Fumarate)	Merck Sharp and Dohme Corp. a Sub of Merck and Co. Inc.	N[41]	First	10.2	AP	10.2	Y♦
Submitted in FY 2017							
Sinuva (Mometasone Furoate)	Intersect ENT Inc.	N	First	9.1	AP	9.1	Y
Rhopressa (Netarsudil Ophthalmic Solution)	Aerie Pharmaceuticals Inc.	Y	First	9.7	AP	9.7	Y♦
Eskata (Hydrogen Peroxide)	Aclaris Therapeutics Inc.	N	First	9.7	AP	9.7	Y
Lumify (Brimonidine Tartrate)	Bausch and Lomb Inc.	N	First	9.8	AP	9.8	Y
Bivalirudin in 0.9% Sodium Chloride	Baxter Healthcare Corp.	N	First	9.8	AP	9.8	Y
Symtuza (Darunavir, Cobicistat, Emtricitabine, and Tenofovir Alafenamide)	Janssen Products LP.	N	First	9.8	AP	9.8	Y
Balcoltra (Levonorgestrel and Ethinyl Estradiol Tablets and Ferrous Bisglycinate Tablets)	Avion Pharmaceuticals LLC.	N	First	9.9	AP	9.9	Y

[41] The applicant submitted two NDAs for the same new moiety (doravirine), but one of the NDAs is in combination with currently marketed drug Delstrigo (doravirine, lamivudine, and tenofovir disoproxil fumarate). Only one retains the NME designation upon approval; in this case, the NDA for doravirine alone retained the NME designation.

Proprietary Name (established name)	Applicant	NME (Y/N)	Review Cycle	Cycle Time (mos.)	Cycle Result	Total Time (mos.)	Goal Met
Zilretta (Triamcinolone Acetonide)	Flexion Therapeutics Inc.	N	First	9.9	AP	9.9	Y
Cinvanti (Aprepitant)	Heron Therapeutics Inc.	N	First	9.9	AP	9.9	Y
Epinephrine	Hospira Inc.	N	First	9.9	TA	9.9	Y
Pemfexy (Pemetrexed)	Eagle Pharmaceuticals Inc.	N	First	9.9	TA	9.9	Y
Impoyz (Clobetasol Propionate)	Encore Dermatology Inc.	N	First	9.9	AP	9.9	Y
Lyrica (Pregabalin)	PF Prism C.V.	N	First	9.9	AP	9.9	Y
Clenpiq (Sodium Picosulfate, Magnesium Oxide, and Anhydrous Citric Acid)	Ferring Pharmaceuticals Inc.	N	First	9.9	AP	9.9	Y
Lymepak (Doxycycline Hyclate)	Chartwell Pharmaceuticals LLC.	N	First	9.9	AP	9.9	Y
Fosaprepitant	Teva Pharmaceuticals USA	N	First	9.9	TA	9.9	Y
Prograf Granules (Tacrolimus)	Astellas Pharma US Inc.	N	First	9.9	AP	9.9	Y
Fulvestrant	Fresenius Kabi USA LLC.	N	First	9.9	TA	9.9	Y
Qbrexza (Glycopyrronium)	Dermira Inc.	N	First	9.9	AP	9.9	Y
Halobetasol Propionate	Therapeutics Inc.	N	First	9.9	AP	9.9	Y
Pemetrexed	Apotex Inc.	N	First	9.9	TA	9.9	Y
Nuplazid (Pimavanserin)	Acadia Pharmaceuticals Inc.	N	First	9.9	AP	9.9	Y
Glyrx-Pf (Glycopyrrolate Injection)	Exela Pharma Sciences LLC.	N	First	9.9	AP	9.9	Y
Dexycu (Dexamethasone)	Eyepoint Pharmaceuticals Inc.	N	First	10.0	AP	10.0	Y
Bydureon Bcise (Exenatide Extended-Release)	AstraZeneca A.B.	N	First	10.0	AP	10.0	Y
Atropine Sulfate	Fresenius Kabi USA LLC.	N	First	10.0	AP	10.0	Y
Lusduna (Insulin Glargine)	Merck Sharp and Dohme Corp. a Sub of Merck and Co. Inc.	N	First	10.0	TA	10.0	Y
Aristada Initio (Aripiprazole Lauroxil)	Alkermes Inc.	N	First	10.0	AP	10.0	Y
Daptomycin	Xellia Pharmaceuticals	N	First	10.0	AP	10.0	Y
Consensi (Amlodipine and Celecoxib)	Kitov Pharmaceuticals Ltd.	N	First	10.0	AP	10.0	Y
Metoprolol Succinate Extended-Release	Sun Pharma Industries Ltd.	N	First	10.0	AP	10.0	Y
Perseris (Risperidone)	Indivior Inc.	N	First	10.0	AP	10.0	Y

Proprietary Name (established name)	Applicant	NME (Y/N)	Review Cycle	Cycle Time (mos.)	Cycle Result	Total Time (mos.)	Goal Met
Prexxartan (Valsartan)	Carmel Biosciences Inc.	N	First	10.0	TA	10.0	Y
			Sponsor	0.1		10.1	
			Second	1.6	AP	11.7	Y▲
Annovera (Segesterone Acetate and Ethinyl Estradiol Vaginal System)	The Population Council Inc.	Y	First	11.8	AP	11.8	Y♦
Vistaseal (Fibrin Sealant (Human))	Instituto Grifols, S.A.	Y	First	11.9	AP	11.9	Y
Ilumya (Tildrakizumab-Asmn)	Sun Pharma Global FZE	Y	First	11.9	AP	11.9	Y♦
Fasenra (Benralizumab)	AstraZeneca A.B.	Y	First	11.9	AP	11.9	Y♦
Braftovi (Encorafenib)	Array Biopharma Inc.	Y	First	11.9	AP	11.9	Y♦
Mektovi (Binimetinib)	Array Biopharma Inc.	Y	First	11.9	AP	11.9	Y♦
(Shingrix) Zoster Vaccine Recombinant, Adjuvanted	GlaxoSmithline Biologicals	Y	First	12.0	AP	12.0	Y
Jivi (Antihemophilic Factor (Recombinant), Pegylated)	Bayer Healthcare LLC.	Y	First	12.0	AP	12.0	Y
Emgality (Galcanezumab)	Eli Lilly and Company	Y	First	12.0	AP	12.0	Y♦
Aimovig (Erenumab-Aooe)	Amgen, Inc.	Y	First	12.0	AP	12.0	Y♦
Tavalisse (Fostamatinib)	Rigel Pharmaceuticals Inc.	Y	First	12.0	AP	12.0	Y♦
Ozempic (Semaglutide)	Novo Nordisk Inc.	Y	First	12.0	AP	12.0	Y♦
Steglatro (Ertugliflozin)	Merck Sharp and Dohme Corp.	Y	First	12.0	AP	12.0	Y♦
Steglujan (Ertugliflozin and Sitagliptin)	Merck Sharp and Dohme Corp.	N[42]	First	12.0	AP	12.0	Y♦
Segluromet (Ertugliflozin and Metformin Hydrochloride)	Merck Sharp and Dohme Corp.	N[43]	First	12.0	AP	12.0	Y♦
Akynzeo (Fosnetupitant and Palonosetron)	Helsinn Healthcare S.A.	Y	First	12.0	AP	12.0	Y♦

[42] The applicant submitted three NDAs for the same new moiety (ertugliflozin), but two of the NDAs are in combination with currently marketed drugs (ertugliflozin vs. ertugliflozin and sitagliptin vs. ertugliflozin and metformin hydrochloride). Only one retains the NME designation upon approval; in this case, the NDA for the ertugliflozin alone form retained the NME designation.

[43] These three NDAs are for the same new moiety (ertugliflozin), but two of the NDAs are in combination with currently marketed drugs (ertugliflozin vs. ertugliflozin and sitagliptin vs. ertugliflozin and metformin hydrochloride). Only one retains the NME designation upon approval; in this case, the NDA for the ertugliflozin alone form retained the NME designation.

Proprietary Name (established name)	Applicant	NME (Y/N)	Review Cycle	Cycle Time (mos.)	Cycle Result	Total Time (mos.)	Goal Met
Yonsa (Abiraterone Acetate)	Sun Pharma Global FZE	N	First	12.1	AP	12.1	Y♯
Plenvu (Polyethylene Glycol (Peg) 3350, Sodium Ascorbate, Sodium Sulfate, Ascorbic Acid, Sodium Chloride, and Potassium Chloride)	Salix Pharmaceuticals Inc.	N	First	12.7	AP	12.7	Y♯
Goprelto (Cocaine Hydrochloride Nasal Solution)	Genus Life Sciences Inc.	N	First	12.7	AP	12.7	Y♯
Osmolex ER (Amantadine)	Osmotica Pharmaceutical	N	First	13.0	AP	13.0	Y♯
Admelog (Insulin Lispro Injection)	Sanofi Aventis US LLC.	N	First	10.0	TA	10.0	Y
			Sponsor	1.3		11.3	
			Second	2.0	AP	13.3	Y▲
Albuminex (Albumin (Human)-Kjda)	Bio Products Laboratory	Y	First	8.5	CR	8.5	
			Sponsor	3.8		12.3	
			Second	6.0	AP	18.3	YΔ♯
Doxercalciferol	Hospira Inc.	N	First	9.5	CR	9.5	Y
			Sponsor	4.4		13.9	
			Second	5.9	AP	19.8	YΔ
Xyosted (Testosterone Enanthate)	Antares Pharma Inc.	N	First	10.0	CR	10.0	Y
			Sponsor	5.3		15.3	
			Second	6.0	AP	21.3	YΔ
Submitted in FY 2016							
Ascor (Ascorbic Acid)	McGuff Pharmaceuticals Inc.	N	First	13.0	AP	13.0	Y♯
Lonhala Magnair (Glycopyrrolate)	Sunovion Respiratory Development Inc.	N	First	9.9	CR	9.9	Y
			Sponsor	0.7		10.6	
			Second	5.7	AP	16.3	YΔ
Xepi (Ozenoxacin)	Ferrer Internacional S.A.	Y	First	12.0	CR	12.0	Y♦
			Sponsor	0.8		12.8	
			Second	4.8	AP	17.6	YΔ
Varubi (Rolapitant)	Tersera Therapeutics LLC.	N	First	10.1	CR	10.1	Y
			Sponsor	3.4		13.5	
			Second	6.0	AP	19.5	YΔ
Abacavir	Micro Labs Ltd. India	N	First	10.0	CR	10.0	Y◊
			Sponsor	7.3		17.3	
			Second	3.2	TA	20.5	YΔ◊
Jornay PM (Methylphenidate Hydrochloride)	Ironshore Pharmaceuticals and Development Inc.	N	First	9.9	CR	9.9	Y
			Sponsor	10.4		20.3	
			Second	2.0	AP	22.3	Y▲

Proprietary Name (established name)	Applicant	NME (Y/N)	Review Cycle	Cycle Time (mos.)	Cycle Result	Total Time (mos.)	Goal Met
Imvexxy (Estradiol Vaginal Inserts)	Therapeuticsmd Inc.	N	First	10.0	CR	10.0	Y
			Sponsor	6.8		16.8	
			Second	6.0	AP	22.8	YΔ
Vancomycin Hydrochloride	Mylan Laboratories Ltd.	N	First	10.0	CR	10.0	Y
			Sponsor	4.7		14.7	
			Second	9.0	AP	23.7	YΔ♯
Hydrocodone Bitartrate and Guaifenesin	ECI Pharmaceuticals LLC.	N	First	10.1	CR	10.1	Y
			Sponsor	8.5		18.6	
			Second	5.8	AP	24.4	YΔ
Bortezomib	Hospira Inc.	N	First	9.9	TA	9.9	Y
			Sponsor	4.4		14.3	
			Second	1.9	CR	16.2	Y▲
			Sponsor	1.6		17.8	
			Third	2.1	CR	19.9	Y▲
			Sponsor	2.7		22.6	
			Fourth	1.9	AP	24.5	Y▲
Olumiant (Baricitinib)	Eli Lilly and Co.	Y	First	14.9	CR	14.9	Y♦ ♯
			Sponsor	7.8		22.7	
			Second	5.9	AP	28.6	YΔ
Cassipa (Buprenorphine and Naloxone)	Teva Pharmaceuticals USA Inc.	N	First	10.0	CR	10.0	Y
			Sponsor	17.2		27.2	
			Second	6.0	AP	33.2	YΔ
Efavirenz	Micro Labs Ltd. India	N	First	9.9	CR	9.9	Y◊
			Sponsor	12.7		22.6	
			Second	6.0	CR	28.6	YΔ◊
			Sponsor	6.7		35.2	
			Third	6.0	TA	41.2	YΔ◊
Submitted in FY 2015							
Vyzulta (Latanoprostene Bunod Ophthalmic Solution)	Bausch and Lomb Inc.	Y	First	12.1	CR	12.1	Y♦
			Sponsor	7.2		19.3	
			Second	5.4	CR	24.7	YΔ♦
			Sponsor	0.3		25.0	
			Third	2.5	AP	27.5	YΔ♦
Tigecycline	Accord Healthcare Inc. USA	N	First	9.7	CR	9.7	Y
			Sponsor	11.9		21.6	
			Second	6.1	AP	27.7	YΔ
Abilify Mycite (Aripiprazole)	Otsuka Pharmaceutical Co. Ltd.	N	First	10.0	CR	10.0	Y
			Sponsor	11.8		21.8	
			Second	6.8	AP	28.6	NΔ

Proprietary Name (established name)	Applicant	NME (Y/N)	Review Cycle	Cycle Time (mos.)	Cycle Result	Total Time (mos.)	Goal Met
Palonosetron Hydrochloride	Fresenius Kabi USA LLC.	N	First	10.0	CR	10.0	Y
			Sponsor	1.4		11.4	
			Second	1.6	TA	13.0	Y▲
			Sponsor	11.0		24.0	
			Third	4.8	AP	28.8	YΔ
Ztlido (Lidocaine Topical System)	Scilex Pharmaceuticals	N	First	10.0	CR	10.0	Y
			Sponsor	15.6		25.6	
			Second	6.1	AP	31.7	YΔ
Lokelma (Sodium Zirconium Cyclosilicate)	AstraZeneca Pharmaceuticals L.P.	Y	First	12.0	CR	12.0	Y♦
			Sponsor	3.7		15.7	
			Second	6.0	CR	21.7	YΔ♦
			Sponsor	8.3		30.0	
			Third	5.8	AP	35.8	YΔ♦
Soluprep (2% Chlorhexidine Gluconate and 70% Isopropyl Alcohol)	3M Health Care Infection Prevention Div.	N	First	10.1	CR	10.1	Y
			Sponsor	9.9		20.0	
			Second	6.0	CR	26.0	YΔ
			Sponsor	5.3		31.3	
			Third	5.9	AP	37.2	YΔ
Remodulin (Treprostinil)	United Therapeutics Corp.	N	First	9.8	CR	9.8	Y
			Sponsor	2.2		12.0	
			Second	5.6	CR	17.6	YΔ
			Sponsor	8.0		25.6	
			Third	12.0	AP	37.6	YΔ
Cabazitaxel	Actavis LLC. an Indirect Wholly Owned Sub of Teva Pharmaceuticals USA Inc.	N	First	9.9	TA	9.9	Y
			Sponsor	26.5		36.4	
			Second	2.5	TA	38.9	N▲
Panzyga (Immune Globulin Intravenous (Human)-Ifas)	Octapharma Pharmazeutika Produktionsges M.B.H.	Y	First	9.8	CR	9.8	Y
			Sponsor	23.7		33.5	
			Second	6.1	AP	39.5	YΔ
Infugem (Gemcitabine In 0.9% Sodium Chloride Injection)	Sun Pharmaceutical Industries Ltd.	N	First	7.9	CR	7.9	Y
			Sponsor	12.0		19.9	
			Second	6.0	CR	25.9	YΔ
			Sponsor	8.8		34.7	
			Third	5.0	AP	39.7	YΔ
Ablysinol (Dehydrated Alcohol)	Belcher Pharmaceuticals LLC.	N	First	9.9	CR	9.9	Y
			Sponsor	24.5		34.4	
			Second	6.0	AP	40.4	YΔ
Submitted in FY 2014							
Lutrate Depot (Leuprolide Acetate For Depot Suspension)	GP-Pharm S.A.	N	First	9.9	CR	9.9	Y
			Sponsor	33.1		43.0	
			Second	6.0	AP	49.0	YΔ

Proprietary Name (established name)	Applicant	NME (Y/N)	Review Cycle	Cycle Time (mos.)	Cycle Result	Total Time (mos.)	Goal Met
Macrilen (Macimorelin Acetate)	Strongbridge Ireland Ltd.	Y	First	12.0	CR	12.0	Y♦
			Sponsor	31.8		43.8	
			Second	5.7	AP	49.5	YΔ♦
Xelpros (Latanoprost Ophthalmic Emulsion)	Sun Pharma Global FZE	N	First	9.8	CR	9.8	Y
			Sponsor	4.5		14.3	
			Second	3.7	CR	18.0	YΔ
			Sponsor	12.0		29.9	
			Third	4.8	CR	34.7	YΔ
			Sponsor	16.6		51.3	
			Fourth	4.2	AP	55.5	YΔ
Submitted in FY 2013							
Lamivudine and Tenofovir Disoproxil Fumarate	Micro Labs Ltd. India	N	First	10.0	CR	10.0	Y◊
			Sponsor	0.2		10.2	
			Second	6.0	CR	16.2	YΔ◊
			Sponsor	15.9		32.0	
			Third	5.8	CR	37.8	YΔ◊
			Sponsor	12.9		50.8	
			Fourth	5.1	TA	55.9	YΔ◊
Bendamustine Hydrochloride	Eagle Pharmaceuticals Inc.	N	First	9.8	TA	9.8	Y
			Sponsor	43.0		52.8	
			Second	1.9	TA	54.7	Y▲
			Sponsor	0.2		54.9	
			Third	1.4	AP	56.3	Y▲
Bortezomib	Fresenius Kabi USA LLC.	N	First	10.0	CR	10.0	Y
			Sponsor	12.0		22.0	
			Second	6.0	CR	28.0	YΔ
			Sponsor	1.6		29.6	
			Third	5.9	TA	35.5	YΔ
			Sponsor	21.6		57.2	
			Fourth	2.1	AP	59.3	N▲
Lamivudine, Nevirapine, and Zidovudine	Micro Labs Ltd.	N	First	10.0	CR	10.0	Y◊
			Sponsor	0.3		10.3	
			Second	6.0	CR	16.3	YΔ◊
			Sponsor	13.4		29.7	
			Third	2.2	CR	31.9	YΔ◊
			Sponsor	17.9		49.8	
			Fourth	9.9	AP	59.7	NΔ♯◊
Radiogenix System (Sodium Pertechnetate TC99M Injection Usp)	Northstar Medical Radioisotopes LLC.	N	First	10.0	CR	10.0	Y
			Sponsor	42.1		52.1	
			Second	9.1	AP	61.2	YΔ♯

Proprietary Name (established name)	Applicant	NME (Y/N)	Review Cycle	Cycle Time (mos.)	Cycle Result	Total Time (mos.)	Goal Met
Submitted in FY 2012							
Heplisav-B (Hepatitis B Vaccine (Recombinant), Adjuvanted)	Dynavax Technologies Corporation	Y	First	9.9	CR	9.9	Y
			Sponsor	36.8		46.7	
			Second	7.8	CR	54.5	YΔ♯
			Sponsor	2.9		57.4	
			Third	9.0	AP	66.5	YΔ♯
Efavirenz, Lamivudine, and Tenofovir Disoproxil Fumarate	Aurobindo Pharma Ltd.	N	First	10.0	TA	10.0	Y◊
			Sponsor	55.8		65.8	
			Second	5.9	AP	71.7	YΔ◊
Submitted in FY 2010							
Lamivudine and Tenofovir Disoproxil Fumarate	Aurobindo Pharma Ltd.	N	First	10.0	TA	10.0	Y◊
			Sponsor	79.5		89.5	
			Second	8.8	AP	98.3	YΔ◊♯
Submitted in FY 2009							
Nocdurna (Desmopressin Acetate)	Ferring Pharmaceuticals Inc.	N	First	10.0	CR	10.0	YΔ
			Sponsor	27.3		37.3	
			Second	6.1	CR	43.4	YΔ
			Sponsor	18.0		61.4	
			Third	6.0	CR	67.4	YΔ
			Sponsor	34.7		102.1	
			Fourth	6.0	AP	108.1	YΔ

Appendix D: Filed Application Numbers by Review Division

The tables below and on the pages that follow show the number of applications filed in FY 2018 for various application types and review designations broken out by review division. This reporting for PDUFA VI is required under section 103 of FDARA.

Original Applications Filed in FY 2018 by Review Division/Office

Review Division/Office	Priority NDAs	Standard NDAs	Priority BLAs	Standard BLAs	Undesignated Original Applications
CDER Review Divisions					
Division of Anesthesia, Analgesia, and Addiction Products	0	7	0	0	0
Division of Anti-Infective Products	14	4	0	0	0
Division of Antiviral Products	5	6	0	0	0
Division of Bone, Reproductive, and Urologic Products	0	3	0	0	0
Division of Cardiovascular and Renal Products	0	4	0	0	0
Division of Dermatology and Dental Products	0	4	0	1	1
Division of Gastroenterology and Inborn Errors Products	4	5	0	0	0
Division of Hematology Products	6	3	6	1	5
Division of Medical Imaging Products	0	2	0	0	1
Division of Metabolism and Endocrinology Products	0	7	0	0	0
Division of Neurology Products	9	12	1	0	0
Division of Nonprescription Drug Products	0	2	0	0	0
Division of Oncology Products 1 (DOP1)	3	0	1	1	1
Division of Oncology Products 2 (DOP2)	5	2	1	0	0
Division of Psychiatry Products	2	6	0	0	1
Division of Pulmonary, Allergy, and Rheumatology Products	1	6	1	1	0
Division of Transplant and Ophthalmology Products	0	6	2	0	0
CDER Totals	49	79	12	4	9

Original Applications Filed in FY 2018 by Review Division/Office (Continued)

Review Division/Office	Priority NDAs	Standard NDAs	Priority BLAs	Standard BLAs	Undesignated Original Applications
CBER Review Offices					
Office of Blood Research and Review	0	0	0	0	0
Office of Cellular Tissue and Gene Therapies	0	0	0	4	0
Office of Vaccines Research and Review	0	0	1	0	0
CBER Totals	0	0	1	4	0
FDA Totals	49	79	13	8	9

Efficacy Supplements Filed in FY 2018 by Review Division/Office

Review Division/Office	Priority Efficacy Supplements	Standard Efficacy Supplements	Undesignated Efficacy Supplements
CDER Review Divisions			
Division of Anesthesia, Analgesia, and Addiction Products	1	2	0
Division of Anti-Infective Products	2	0	2
Division of Antiviral Products	6	14	0
Division of Bone, Reproductive, and Urologic Products	0	5	1
Division of Cardiovascular and Renal Products	0	6	0
Division of Dermatology and Dental Products	2	4	2
Division of Gastroenterology and Inborn Errors Products	1	8	2
Division of Hematology Products	19	4	10
Division of Medical Imaging Products	0	2	4
Division of Metabolism and Endocrinology Products	0	26	5
Division of Neurology Products	10	10	1
Division of Nonprescription Drug Products	0	1	0
Division of Oncology Products 1 (DOP1)	14	7	2

Review Division/Office	Priority Efficacy Supplements	Standard Efficacy Supplements	Undesignated Efficacy Supplements
Division of Oncology Products 2 (DOP2)	15	27	2
Division of Psychiatry Products	1	3	0
Division of Pulmonary, Allergy, and Rheumatology Products	6	14	1
Division of Transplant and Ophthalmology Products	0	6	0
CDER Totals	77	139	32
CBER Review Offices			
Office of Blood Research and Review	0	0	0
Office of Cellular Tissue and Gene Therapies	0	3	0
Office of Vaccines Research and Review	0	5	0
CBER Totals	0	8	0
FDA Totals	77	147	32

Submissions with Special Designations Filed in FY 2018 by Review Division/Office

Review Division/Office	Accelerated Approval	Fast Track Products	Orphan Designations	Breakthrough Designations*
CDER Review Divisions				
Division of Anesthesia, Analgesia, and Addiction Products	0	2	0	2
Division of Anti-Infective Products	1	9	5	1
Division of Antiviral Products	0	3	1	3
Division of Bone, Reproductive and Urologic Products	0	0	0	0
Division of Cardiovascular and Renal Products	0	0	1	3
Division of Dermatology and Dental Products	0	0	0	5
Division of Gastroenterology and Inborn Errors Products	1	3	2	0
Division of Hematology Products	1	8	13	8
Division of Medical Imaging Products	0	1	2	0
Division of Metabolism and Endocrinology Products	0	0	0	0
Division of Neurology Products	1	4	11	4
Division of Nonprescription Drug Products	0	0	0	0
Division of Oncology Products 1 (DOP1)	1	2	0	10

Review Division/Office	Accelerated Approval	Fast Track Products	Orphan Designations	Breakthrough Designations*
Division of Oncology Products 2 (DOP2)	0	1	6	13
Division of Psychiatry Products	0	3	2	4
Division of Pulmonary, Allergy, and Rheumatology Products	0	2	2	8
Division of Transplant and Ophthalmology Products	0	2	2	1
CDER Totals	5	40	47	62
CBER Review Offices				
Office of Blood Research and Review	0	0	0	0
Office of Cellular Tissue and Gene Therapies	0	0	0	6
Office of Vaccines Research and Review	0	0	0	3
CBER Totals	0	0	0	9
FDA Totals	5	40	47	71

* This column does not represent filed figures; rather it shows the number of breakthrough designations granted on INDs, NDAs, and BLAs during FY 2018. Breakthrough designation is granted based on indication, and therefore one submission may have more than one breakthrough designation granted.

Appendix E: Analysis of Use of Funds

FDARA requires in the annual performance reports of each of the human medical product user fee programs specified analyses of the use of funds to include information such as differences between aggregate numbers of applications and approvals, analysis of performance enhancement goals, and the most common causes and trends affecting the ability to meet goals; it also requires the issuance of corrective action reports (§ 904).

A. Original Application Approval Cycle Summary

The following table addresses section 904(a)(1) of FDARA (section 736B(a)(5)(A) of the FD&C Act), pertaining to PDUFA, which requires FDA to include data showing the aggregate number of approvals that occurred during FY 2018. Data represents all the original NDA and BLA approvals that occurred during FY 2018, regardless of when the application was received. Data is presented by the type of application, performance goal, and whether the approval occurred on time or was overdue on the performance goal.

This table captures not only first cycle approvals, but multiple cycle approvals as well. For applications that were approved after multiple cycles, the performance metric is counted for the last cycle where the approval was given. Approval counts also include applications that were given a tentative approval.

Figures provided in the table below are indicated in detail in Appendix C of this report, which provides a detailed review history of the NDAs and BLAs approved under PDUFA during FY2018.[44]

Approval Cycle Type	Performance Goal: Act on 90 Percent Within	Approval Count	On Time	Overdue	Percent on Time
First Cycle Priority NMEs & BLAs	6 months of filing date	36	36	0	**100%**
First Cycle Standard NMEs & BLAs	10 months of filing date	16	16	0	**100%**
First Cycle Priority Non-NME NDAs	6 months	19	18	1	**95%**
First Cycle Standard Non-NME NDAs	10 months	53	53	0	**100%**

[44] Performance is calculated on the first cycle in which the application received an Approval or Tentative Approval only. Any subsequent Tentative or Full approvals, after the first Tentative Approval action, will not affect the performance metric regardless of the fiscal year of the first Tentative Approval.

Approval Cycle Type	Performance Goal: Act on 90 Percent Within	Approval Count	On Time	Overdue	Percent on Time
Class 1 Resubmissions	2 months	2	2	0	**100%**
Class 2 Resubmissions	6 months	39	37	2	**95%**
Total		**165**	**162**	**3**	**--***

***** Performance is not calculated on combined goals.

B. Performance Enhancement Goals

The following table addresses section 904(a)(1) of FDARA (section 736B(a)(5)(B) of the FD&C Act), pertaining to PDUFA, which requires FDA to include relevant data to determine whether CDER and CBER have met performance enhancement goals identified in the letters described in section 101(b) of the Prescription Drug User Fee Amendments of 2017 for the applicable fiscal year. A link to each performance enhancement goal completed under PDUFA VI can be found on FDA's website located here: www.fda.gov/ForIndustry/UserFees/PrescriptionDrugUserFee/ucm624559.htm.

For the purposes of this report, performance enhancement goals are defined as any non-review performance goal described in PDUFA with a specified goal date that falls within the applicable fiscal year.

Performance Enhancement Goal	Target Goal Date	On Time (Y/N)	Actual Completion Date	Comments
PDUFA FY18 Q1 Hiring Web Post	1/14/2018	N	4/11/2018	Web posting was delayed. FDA has since established a process to assure that updated hiring numbers are posted shortly after each quarter ends.
PDUFA FY18 Q2 Hiring Web Post	4/14/2018	Y	4/11/2018	
PDUFA FY18 Q3 Hiring Web Post	7/14/2018	Y	7/3/2018	.
PDUFA FY18 Q4 Hiring Web Post	10/14/2018	Y	10/9/2018	.
Good Review Management Principles and Practices for New Drug Applications and Biologics License Applications: Guidance for Industry and Review Staff	9/30/2018	Y	9/25/2018	
Formal Meetings Between the FDA and Sponsors or Applicants of PDUFA Products: Guidance for Industry	9/30/2018	Y	12/28/2017	
Draft Guidance on Biomarker Taxonomy	9/30/2018	Y	1/18/2016	

Performance Enhancement Goal	Target Goal Date	On Time (Y/N)	Actual Completion Date	Comments
FY18 Posting BQ submissions	9/30/2018	Y	N/A	Though the commitment is quarterly, updates are posted in real-time after submissions come in.
Contents of a Complete Submission for Threshold Analyses and Human Factors Submissions to Drug and Biologic Applications: Draft Guidance	9/30/2018	Y	9/28/2018	
Public Workshop - Patient Engagement in Real-World Evidence (RWE): Lessons Learned and Best Practices Workshop	9/30/2018	Y	9/13/2017	
Initial Assessment of FDA Hiring and Retention - A Path Forward	12/31/2017	Y	11/15/2017	
Initial Public Meeting of FDA Hiring and Retention	12/31/2017	Y	11/30/2017	
Guidance -- Patient-Focused Drug Development: Collecting Comprehensive and Representative Input	9/30/2018	Y	6/12/2018	
Benefit-Risk Assessment in Drug Regulatory Decision-Making (Draft PDUFA VI Implementation Plan (FY 2018-2022))	3/31/2018	Y	3/30/2018	
Promoting the Use of Complex Innovative Designs in Clinical Trials – Public Meeting	3/31/2018	Y	3/20/2018	
Adaptive Design for Clinical Trials of Drugs and Biologics: Guidance for Industry	9/30/2018	Y	9/28/2018	
PDUFA Electronic Submission Processes - Electronic Submission Documentation	12/31/2017	Y	10/31/2017	
Electronic Submission and Data Standards: Annual ESG and Standard Metrics- Submission Statistics	12/31/2017	Y	11/1/2017	
PDUFA Electronic Submission Processes: Electronic Submission and System Status	9/30/2018	Y	7/10/2018	
PDUFA Electronic Submission Processes: Publishing Target Timeframes	12/31/2017	Y	12/14/2017	
Electronic Submission and Data Standards - Quarterly Meetings FY18 Q1	12/31/2017	Y	10/1/2017	
Electronic Submission and Data Standards - Quarterly Meetings FY18 Q2	3/31/2018	Y	3/6/2018	
Electronic Submission and Data Standards - Quarterly Meetings FY18 Q3	6/30/2018	Y	6/12/2018	

Performance Enhancement Goal	Target Goal Date	On Time (Y/N)	Actual Completion Date	Comments
Electronic Submission and Data Standards - Quarterly Meetings FY18 Q4	9/30/2018	Y	9/11/2018	
Electronic Submission and Data Standards: Annual Public Meeting FY18	9/30/2018	Y	7/10/2018	
Resource Capacity Planning and Modernized Time Reporting Implementation Plan	3/31/2018	Y	3/30/2018	
Five-Year Financial Plan Fiscal Years 2018-2019-2020-2021-2022, 2018 Version, for PDUFA	3/31/2018	Y	3/29/2018	
Public Meeting for DDTs	9/30/2018	N	12/11/2018	Overlap between PDUFA goals and the 21st Century Cures Act created a conflict in deadlines for drug development tool qualification activities.
Lean Process Mapping	12/31/2017	Y	6/22/2017	
OCP Internal Documents for Resolving Issues	9/30/2018	Y	3/27/2018	
FY18 MIDD Quarterly Selections and Meetings	9/30/2018	Y	7/5/2018	
PDUFA Electronic Submission Processes: Communicating E-Submission Milestone Notifications	9/30/2018	Y	9/30/2018	
PDUFA Electronic Submission Processes: Advance Notification of Systems and Process Changes	12/31/2017	Y	12/14/2017	
Electronic Submission and Data Standards: Updating IT Strategic Plan FY18	12/31/2017	Y	12/27/2017	
Start Tracking ICC Workload and Timelines	12/31/2017	Y	12/31/2017	
Pilot Program: Model-Informed Drug Development (MIDD)	9/30/2018	Y	4/17/2018	
Pilot Program: Innovative Designs and Analysis Standards	9/30/2018	Y	8/30/2018	
PDUFA Hiring Goals FY2018: 71 FTEs	9/30/2018	N	N/A	63 out of 71 required hires under PDUFA were completed. FDA intends to hire the remaining 8 FTEs as quickly as possible.

C. Common Causes and Trends Impacting Ability to Meet Goals

The following table addresses section 904(a)(1) of FDARA (section 736B(a)(5)(C) of the FD&C Act), pertaining to PDUFA, which requires FDA to identify the most common causes and trends of external or other circumstances affecting the ability of FDA—including CDER, CBER, and the Office of Regulatory Affairs (ORA)—to meet the review time and performance enhancement goals identified in the letters described in section 101(b) of the Prescription Drug User Fee Amendments of 2017.

Cause or Trend	Impact on FDA Ability to Meet Goals
Small Number of Class 1 Resubmissions	• Due to the low number of class 1 resubmissions received (i.e., nine total), missing the goal for a single application resulted in dropping below the PDUFA standard of 90 percent on time.
Large Volume of Formal PDUFA Meeting Requests	• In FY 2018, FDA received 3,492 formal PDUFA meeting requests. Logistically, there are times when it is difficult to schedule the necessary signatories and reviewers within the goal dates. Increasing workload in other user fee areas such as IND and marketing applications also contribute to the overall challenge of scheduling and completing meeting responses on time.
Lack of Standardized Hiring Posting Process	• A lack of a standardized process for generating and clearing quarterly hiring data led to late FY18 first quarter posting.
Disparity between Deadlines in PDUFA and 21st Century Cures Act	• Conflict between due dates for overlapping deliverables caused FDA to need to select the due date that best enabled statutory requirements overall to be met. This meant that some PDUFA goals were missed as a result, when 21st Century Cures Act deadlines were further out and impacted other legislative requirements.
Strong Job Market	• The job market in both the medical and pharmaceutical fields was very strong in FY18, and the national unemployment rate at an almost 50-year low. This made it difficult to attract strong candidates and led to potential employees for user-fee (UF) positions of critical need receiving competing offers.
Non-Competitive Salaries for Specialized Talent	• Occupations represented by UF positions of critical need had large gaps in government pay compared to the private sector. This made it difficult to attract strong candidates and led to potential employees for UF positions of critical need receiving competing offers.
Recruiting for Critical Center Leadership Positions	• Recruiting for critical Center leadership positions temporarily diverted attention away from PDUFA drug review and regulatory positions.
Lengthy Hiring Process	• In some cases, months elapsed between an interview and the extension of a tentative offer to a potential employee, which led to some potential employees declining offers.

Appendix F: FY 2018 Corrective Action Report

This report statisfies the reporting requirement for section 904 of FDARA, FDA is required to publicly issue an analysis of use of funds which includes a corrective action report that details FDA's progress in meeting the review and performance enhancement goals identified in PDUFA VI for the applicable fiscal year.

If each of the review and performance enhancement goals for the applicable fiscal year have are met, the corrective action report shall include recommendations on ways in which the Secretary can improve and streamline the human drug application process.

For any of the review and performance enhancement goals during the applicable fiscal year that were not met, the corrective action report shall include a justification, as applicable, for the types of circumstances and trends that contributed to missed review goal times; and, with respect to performance enhancement goals that were not met, a description of the efforts FDA has put in place to improve the ability of the Agency to meet each goal in the coming fiscal year. Such a description of corrective efforts is not required by statute for review time goals, but FDA is providing this information in an effort to be complete.

This report satisfies this reporting requirement.

Executive Summary

FY 2018 Review Goal Performance

Goal Type	Circumstances and Trends Impacting Ability to Meet Goal Date	Corrective Action Plan
Review Goals	Class 1 resubmission for original applications • Due to the low number of class 1 resubmissions received (i.e., nine total), missing the goal for a single application resulted in dropping below the PDUFA standard of 90 percent on time.	• FDA will continue to strive to meet all PDUFA review goal dates.
Procedural and Processing Goals	• Large volume of formal PDUFA meeting requests. • Misunderstanding by frontline review staff of the new goal for the Type B (EOP) meeting preliminary comments.	• As part of a new drugs modernization effort, FDA is developing a proposal for CDER to better align and distribute resources. • FDA will conduct additional training on meeting management goal expectations and assessing process improvements. • FDA will continue to strive to meet hiring goals to assure appropriate staffing.

FY 2018 Performance Enhancement Goal Performance

Goal Type	Circumstances and Trends Impacting Ability to Meet Goal Date	Corrective Action Plan
Public Meetings and Workshops	• Conflict between deadlines in PDUFA goals versus the 21st Century Cures Act with regard to drug development tools.	• FDA tries to consider all possible ramifications when given the opportunity to comment on pending legislation impacting the Agency and will continue to do so in the future. However, infrequently there may be times when overlap such as this occurs and may be unavoidable.
Website Publishing	• A lack of a standardized process for generating and clearing quarterly hiring data.	• Establishment of a systematic approach to posting hiring data as of Q2 FY18.
Human Capital/Hiring	• Strong job market for potential candidates. • Non-competitive salaries compared to private sector. • Recruitment for critical Center leadership positions. • Lengthy hiring process.	• Use of 21st Century Cures Act hiring authority. • Streamlined HR approach to promote HR-hiring manager alignment and process agility.

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PDUFA Review Goals

The following section addresses section 904(a)(2)(B) of FDARA (section 736B(c)(2)(A) of the FD&C Act), which requires FDA to provide a justification for the determination of review goals missed during FY 2018, and a description of the circumstances and any trends related to missed review goals.

This section presents PDUFA performance and workload information for two different types of goals: (1) review of applications and other submissions pertaining to human drugs and biologics and (2) meeting management and other procedural goals related to responses and notifications in the human drug review process.

This section includes all PDUFA VI goals as it pertains to receipts/filed submissions in FY 2018.

I. FY 2018 Review Goal Performance

A. *Summary of Performance:*

FDA missed the PDUFA goal date for 90 percent on time review of class 1 resubmission of original applications.

B. *Justification:*

Due to the low number of class 1 resubmissions received (i.e., nine total), missing the goal for a single application resulted in dropping below the PDUFA standard of 90 percent on time. Action on the single application occurred 15 days past the PDUFA goal date.

C. *FY 2019 Corrective Actions:*

FDA will continue to strive to meet all PDUFA review goal dates.

II. FY 2018 Procedural and Processing Performance

A. *Summary of Performance:*

FDA missed the following procedural goals related to formal meeting management:

- Meeting request response for Type A and Type B (EOP)
- Meeting scheduling for Type A, B, B (EOP), and C
- Final written response only for Type A, Type B, Type B (EOP), and Type C
- Meeting preliminary response for Type B (EOP)

B. *Justification:*

Contributing factors in missing meeting management goals included the following:

- The large volume of formal PDUFA meeting requests.
    - In FY 2018, FDA received 3,492 formal PDUFA meeting requests. Logistically, there are times when it is difficult to schedule the necessary signatories and reviewers within the goal dates. Increasing workload in other user fee areas such as IND and marketing applications also contribute to the overall challenge of scheduling and completing meeting responses on time.
- Misunderstanding by frontline review staff of the new goal for the Type B (EOP) meeting preliminary comments.

C. *FY 2019 Corrective Actions:*

- FDA developed an Office of New Drugs modernization effort within CDER that will re-align new drug therapeutic areas and flatten the organization. This will result in an increased number of signatories who can attend and sign-off on formal meetings, potentially addressing some of the logistical scheduling issues. Additionally, the proposed office-level centralization of Regulatory Health Project Managers is intended to facilitate consistency in processes and performance, potentially helping to more efficiently manage increasing workload.
- FDA will conduct additional training on meeting management goal expectations and assessing process improvements to accommodate meeting management workload.
- FDA will continue to strive to meet hiring goals to increase staff to address the increasing workload.

PDUFA Performance Enhancement Goals

The following section addresses section 904(a)(2)(B) of FDARA (section 736B(c)(2)(B) of the FD&C Act), which requires FDA to provide a justification for missed performance enhancement goals, and a description of the circumstances and any trends that impacted FDA's ability to meet performance enhancement goals during FY 2018.

This section presents non-review performance goals cited in the PDUFA Reauthorization Performance Goals and Procedures for FY 2018 through FY 2022 with required completion dates in FY 2018. For the purposes of this report, performance enhancement goals are defined as any non-review performance goal with a specified deadline as named in the PDUFA commitment letter. Performance enhancement goals with specified completion dates in FY 2019 through FY 2022 will be covered in subsequent corrective action reports.

I. Public Meetings and Workshops

A. *Summary of Performance:*

The PDUFA goal date for holding a public meeting to discuss drug development tools was missed.

B. *Justification:*

There is significant overlap between PDUFA goals and 21st Century Cures Act legislation with regard to deliverables for drug development tool qualification activities. This overlap created conflict in some of the deadlines for drug development tool activities. A decision was made by FDA to adhere to the statutory timelines in the 21st Century Cures Act in order to facilitate better implementation of the statutory requirements. This resulted in missing the drug development tools public meeting goal date outlined in PDUFA in order to perform other activities required by statute before holding the public meeting.

C. *FY 2019 Corrective Actions:*

To the extent possible, FDA tries to consider all possible ramifications when given the opportunity to comment on pending legislation impacting the Agency and will continue to do so in the future. However, infrequently there may be times when overlap such as this can occur and may be unavoidable.

II. Website Publishing

A. *Summary of Performance:*

FDA missed the PDUFA goal date for posting on the web the FY 2018 1st quarter hiring.

B. *Justification:*

FDA had not yet aligned on a standardized hiring data presentation and clearance process.

C. *FY 2019 Corrective Actions:*

FDA has since established a systematic approach to generating and clearing quarterly hiring data and met the goal in subsequent FY 2018 quarters.

III. Human Capital/Hiring

A. *Summary of Performance:*

FDA missed the PDUFA goal for hiring in FY 2018. Specifically, 63 out of 71 employees were hired.

B. *Justification:*

The job market in both the medical and pharmaceutical fields was very strong in FY 2018, and the national unemployment rate was at an almost 50-year low. Additionally, occupations represented by user fee positions of critical need had large gaps in government pay compared to the private sector. These factors made it difficult for FDA to attract strong candidates for user fee positions of critical need in support of the drug review process and/or regulation of medical products. In some cases, tentative offers were extended, but candidates chose to pursue other opportunities outside FDA.

Furthermore, recruiting for critical Center leadership positions temporarily diverted attention away from PDUFA drug review and regulatory positions. Finally, there were instances in which months elapsed between an interview and the extension of a tentative offer to a potential employee. This led to some potential employees declining FDA offers.

C. *FY 2019 Corrective Actions:*

FDA has begun to use the hiring authority granted under the 21st Century Cures Act to bring on specialized talent—including for user fee positions of critical need—at more competitive salaries, which should help FDA compete in this job market. However, it will not fully close the gap with the private sector.

Additionally, FDA will deploy a personnel action plan in FY 2019, aligning positions of critical need with hiring managers' program priorities, including PDUFA positions. This

streamlined approach within human resources will generate partnerships with hiring managers to promote user fee positions. It will also employ other hiring flexibilities to make the overall hiring process more efficient.

Appendix G: Definitions of Key Terms

A. The term "review and act on" means the issuance of a complete action 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.

B. Review Performance Goal Extensions

1. Major Amendments

   a. A major amendment to an original application, efficacy supplement, or Class 2 resubmission of any of these applications, submitted at any time during the review cycle, may extend the goal date by 3 months. [Note: If the review cycle occurred prior to FY 2013, the major amendment must have been received within 3 months of the action due date to extend the action goal date by 3 months.]

   b. A major amendment may include, for example, a major new clinical safety/efficacy study report; major re-analysis of previously submitted study (studies); submission of a Risk Evaluation and Mitigation Strategy (REMS) with Elements to Assure Safe Use (ETASU) not included in the original application; or significant amendment to a previously submitted REMS with ETASU. Generally, changes to REMS that do not include ETASU and minor changes to REMS with ETASU will not be considered major amendments.

   c. A major amendment to a manufacturing supplement submitted at any time during the review cycle may extend the goal date by 2 months. [Note: If the review cycle occurred prior to FY 2013, the major amendment must have been received within 2 months of the action due date to extend the action goal date by 2 months.]

   d. Only one extension can be given per review cycle.

   e. Consistent with the underlying principles articulated in the Good Review Management Principles and Practices for PDUFA Products guidance[45], FDA's decision to extend the review clock should, except in rare circumstances, be limited to occasions where review of the new information could address outstanding deficiencies in the application and lead to approval in the current review cycle.

2. Inspection of Facilities Not Adequately Identified in an Original Application or Supplement

   a. All original applications, including those in the "Program," and supplements are expected to include a comprehensive and readily located list of all manufacturing facilities included or referenced in the application or supplement. This list provides FDA with information needed to schedule inspections of manufacturing facilities that may be necessary before approval of the original application or supplement.

   b. If, during FDA's review of an original application or supplement, the Agency identifies a manufacturing facility that was not included in the comprehensive and readily located list, the goal date may be extended.

[45] www.fda.gov/downloads/Drugs/.../Guidances/ucm079748.pdf

i. If FDA identifies the need to inspect a manufacturing facility that is not included as part of the comprehensive and readily located list in an original application or efficacy supplement, the goal date may be extended by three months.
ii. If FDA identifies the need to inspect a manufacturing facility that is not included as part of the comprehensive and readily located list in a manufacturing supplement, the goal date may be extended by two months.

C. An resubmitted original application is a applicant's complete response to an action letter addressing all identified deficiencies.

D. Class 1 resubmitted applications are applications resubmitted after a complete response letter (or a not approvable or approvable letter) that include the following items only (or combinations of these items):

1. Final printed labeling
2. Draft labeling
3. 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)
4. Stability updates to support provisional or final dating periods
5. Commitments to perform postmarketing studies, including proposals for such studies
6. Assay validation data
7. Final release testing on the last 1-2 lots used to support approval
8. A minor reanalysis of data previously submitted to the application (determined by the Agency as fitting the Class 1 category)
9. Other minor clarifying information (determined by the Agency as fitting the Class 1 category)
10. Other specific items may be added later as the Agency gains experience with the scheme and will be communicated via guidance documents to industry

E. Class 2 resubmissions are resubmissions that include any other items, including any item that would require presentation to an advisory committee.

F. Meeting requests commit FDA to notify the requestor of a formal meeting in writing within 14 days of request for Type A and Type B(EOP) meetings or within 21 days of request for Type B and Type C meetings.

G. Scheduled meetings should be made within 30 days of receipt of request for Type A meetings, 60 days for Type B meetings, 70 days for Type B(EOP) meetings and 75 days for Type C meetings. If the requested date for any of these types of meetings is greater than 30, 60, or 75 days, as appropriate, from the date the request is received by FDA, the meeting date should be within 14 days of the requested date.

H. Preliminary responses to sponsor questions contained in the background package for Type B(EOP) meetings should be sent to the sponsor no later than five calendar days prior to the meeting date.

I. Meeting minutes are to be prepared by FDA clearly outlining agreements, disagreements, issues for further discussion, and action items. They will be available to the sponsor within 30 days of the meeting.

J. A Type A Meeting is a meeting that is necessary for an otherwise stalled drug development program to proceed (a "critical path" meeting) or to address an important safety issue.

K. Type B meetings include pre-IND meetings and pre-NDA/BLA meetings, while Type B(EOP) meetings are reserved for certain End-of-Phase 1 meetings (i.e. for 21 CFR Part 312 Subpart E or 21 CFR Part 314 Subpart H or similar products) and End-of-Phase 2/pre-Phase 3 meetings. Meetings regarding REMS or postmarketing requirements that occur outside the context of the review of a marketing application will also generally be considered Type B meetings.

L. A Type C Meeting is any other type of meeting.

M. The performance goals and procedures also apply to original applications and supplements for human drugs initially marketed on an over-the-counter (OTC) basis through an NDA or switched from prescription to OTC status through an NDA or supplement.

N. Information Technology-specific definitions:

1. "Program" refers to the organizational resources, procedures, and activities assigned to conduct "the process for the review of human drug applications," as defined in PDUFA.

2. "Standards-based" means compliant with published specifications that address terminology or information exchange between FDA and regulated parties or external stakeholders, as adopted by FDA or other agencies of the federal government, and often based on the publications of national or international Standards Development Organizations.

3. "FDA Standards" means technical specifications that have been adopted and published by FDA through the appropriate governance process. FDA standards may apply to terminology, information exchange, engineering or technology specifications, or other technical matters related to information systems. FDA standards often are based on the publications of other federal agencies, or the publications of national or international Standards Development Organizations.

4. "Product life cycle" means the sequential stages of human drug development, regulatory review and approval, post-market surveillance and risk management, and where applicable, withdrawal of an approved drug from the market. In the context of the process for the review of human drug applications, the product life cycle begins with the earliest regulatory submissions in the IND phase, continues through the NDA or BLA review phase, and includes post-market surveillance and risk management activities as covered under the process for the review of human drug applications.

O. Special Protocol Assessments: Upon specific request by a sponsor, FDA will evaluate certain protocols and issues to assess whether the design is adequate to meet scientific and regulatory requirements identified by the sponsor.

P. First Cycle Filing Review Notifications: Under PDUFA V, FDA committed to report 90 percent of substantive review issues (or lack thereof) identified during the initial filing review to the applicant within 74 days.

Q. Planned Review Timeline Notifications: FDA is to inform the applicant of the planned timeline for feedback related to labeling and PMRs and PMCs. Beginning in FY 2013, applications being reviewed under the Program are to include additional information about the planned date for the internal mid-cycle meeting and preliminary plans on whether to hold an Advisory Committee meeting to discuss the application.

R. The Application Integrity Policy focuses on the integrity of data and information in applications submitted to FDA for review and approval. It describes FDA's approach regarding the review of applications that may be affected by wrongful acts that raise significant questions regarding data reliability.[46]

[46] www.fda.gov/downloads/ICECI/EnforcementActions/ApplicationIntegrityPolicy/UCM072631.pdf.

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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 Drug Evaluation and Research (CDER). For information on obtaining additional copies contact:

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