Resiliency Roadmap for FDA Inspectional Oversight

MAY 2021

U.S. FOOD & DRUG ADMINISTRATION

Foreword

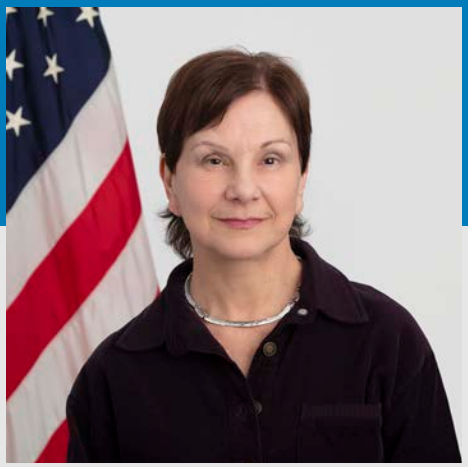
In March 2020, as the COVID-19 pandemic began to unfold in the U.S. and our nation faced one of its largest public health challenges in a century, the U.S. Food and Drug Administration made the decision to pause most foreign and domestic inspections, with the exception of mission-critical inspectional work. This decision was made in response to federal guidelines to mitigate the spread of the COVID-19 virus.

We quickly adapted our business operations for inspections, investigations, and sampling work to provide the necessary oversight of regulated industry, determining that mission-critical inspectional work would be conducted on a case-by-case basis throughout the pandemic. For all other routine surveillance inspectional activities that would traditionally occur on-site, we leveraged a host of available tools and implemented innovative approaches to conduct our work.

As the pandemic evolved, we adapted our approaches to expand our reach. In July 2020, we resumed certain domestic inspections in a prioritized fashion after developing a COVID-19 Advisory Rating system (COVID-19 Advisory Level). This system uses real-time data to qualitatively assess the trajectory of the virus on a state-by-state basis, down to the county level. It helps us manage risks to FDA investigators and regulated-industry workforces by determining where and when it is safest to conduct an inspection.

While FDA has continued many of our oversight activities, there is no doubt that the pandemic has had an impact on our inspectional work. In the spirit of transparency, we are releasing this "Resiliency Roadmap for FDA Inspectional Oversight" report detailing not only the effect of the pandemic on our inspectional activities for each regulated commodity in FDA's portfolio, but also our detailed plan for a more consistent state of operations and our priorities going forward. Our plan uses base-/best-/worst-case scenarios, given the continued uncertainty of the ongoing pandemic.

The numbers reveal the state of our inspectional oversight and how we plan to address postponed inspectional work using a risk-based approach. We are committed to doing so as quickly as possible, with the safety of our workforce and public health top of mind. We are grateful for the continued support from Congress that makes this possible, and we are committed to optimizing resource allocation to maximize public health impact. FDA's workforce remains steadfast in its mission to protect and promote public health and ensure that the products we regulate are safe and of high quality for all Americans.



Janet Woodcock, M.D.
Acting Commissioner of Food and Drugs

Background

The U.S. Food and Drug Administration protects the public health by ensuring the safety, effectiveness and security of human and veterinary drugs, medical devices, vaccines and other biological products for human use. The agency also is responsible for the safety and security of our nation's human and animal food supply, cosmetics, dietary supplements, products that emit electromagnetic radiation, and for regulating tobacco products. FDA uses many tools in its oversight of these products. Inspections[1] are an important part of our toolkit and are part of a comprehensive approach to carrying out our oversight responsibilities.

The major industry sectors inspected by FDA are:

- Vaccine, human and animal drug manufacturers.
- Medical device manufacturers.
- Blood banks.
- Food processing facilities.
- Animal food processors.
- Compounding pharmacies.

FDA also inspects:

- Foreign manufacturing and processing sites for FDA-regulated products sold in the U.S.
- Clinical investigators and facilities conducting studies with human subjects and/or patients (clinical trials).
- Businesses that manufacture, market or distribute tobacco products.
- Laboratories that conduct studies in animals or microorganisms when these studies are used to apply for FDA approval of a medical product.
- Imported regulated products at U.S. Ports of Entry or Foreign Trade Zones.

[1] For purposes of this document, an "inspection" means an on-site evaluation, unless otherwise specified.

Manufacturers of FDA-regulated commodities maintain primary responsibility for ensuring that the products reaching American consumers are safe and of high quality. Manufacturers and processors are generally required to employ a robust quality management system, also referred to as Current Good Manufacturing Practice (CGMP), or as "preventive controls" in the food industry, to ensure their products are safe and suitable for the U.S. consumer. FDA's role in conducting periodic surveillance inspections, and when using other oversight tools, is to verify that these quality systems are established and operating as required. FDA also conducts inspections to verify that other regulated entities, such as those involved in the conduct and reporting of FDA-regulated research, are complying with regulatory requirements. If problems are found, FDA uses a variety of oversight and enforcement tools to ensure corrections are made, including additional inspections.

Types of Inspections

The FDA conducts three types of inspections:

1. For-cause inspections are triggered at any time when there is reason to believe a facility has serious manufacturing problems or to investigate a specific problem or product complaint that has come to FDA's attention.
2. Pre-approval, pre-market or pre-license inspections are conducted when necessary, as part of the review of an application to market a new product.
3. Routine surveillance inspections of regulated facilities are used to monitor ongoing compliance with Current Good Manufacturing Practice (CGMP) and other requirements.

FDA Inspections During the Pandemic

In March 2020, at the onset of the pandemic, FDA reserved inspections for mission-critical[2] issues and temporarily postponed all routine domestic and foreign surveillance facility inspections. Inspections identified as mission critical continued across all FDA-regulated commodities regardless of physical site location, foreign and domestic.

Mission-Critical Inspections

Factors Determining Mission-Critical Inspections

- Product received breakthrough therapy or regenerative medicine advanced therapy designation.
- Product requires follow-up due to recall, or there is evidence of serious adverse events or outbreaks of a foodborne illness.
- Product is used to treat a serious disease or medical condition and there is no substitute.
- Product is related to FDA's COVID-19 response (e.g., drug shortages).

[2] During the pandemic, FDA has identified inspections considered to be mission critical on a case-by-case basis. In determining whether an inspection is mission critical, FDA weighs, among other things, its resources and capabilities for the inspection during the public health emergency against the public health risk or benefit posed by the potential inspection site.

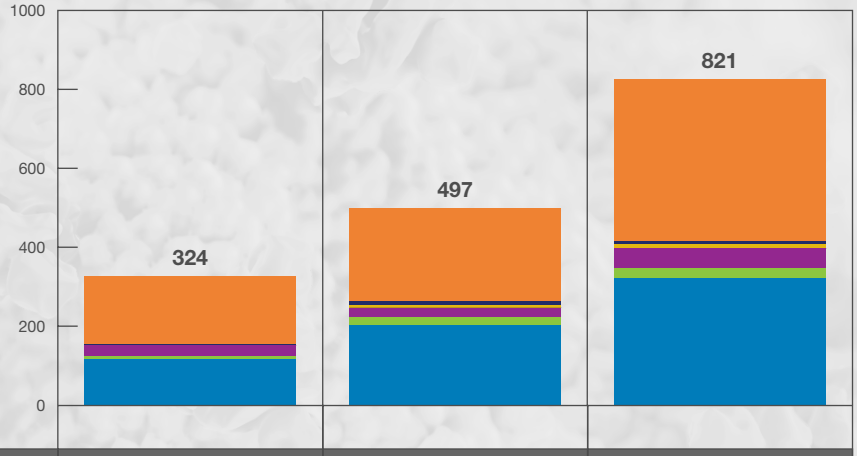
Mission-critical work is not limited to inspections. For example, FDA also conducted mission-critical sample collections and analyses, recall activities including recall audit checks, consent decree follow-up activities and special assignments deemed mission critical. These activities may be performed in response to outbreaks, occur as preventive activities in response to outbreaks that occurred in previous years tied to seasonal products, be based on intelligence from regulatory partners, foreign authorities, industry stakeholders or other trusted sources and other circumstances that are deemed mission critical by the agency.

Mission-Critical Inspections

From March 2020 through March 2021, FDA has conducted a total of 821 mission-critical inspections, including 29 in foreign countries[3] (Table 1).[4]

Table 1

Domestic and Foreign Mission-Critical Inspections Conducted, March 2020 through March 2021



Commodity	March-Sept. 2020[5]	Oct.-March 2021	Total
Human and Animal Food	**124**	**222**	**346**
Human Food	*117*	*203*	*320*
Animal Food	*7*	*19*	*26*
Human and Animal Medical Products and Tobacco[6]	**200**	**275**	**475**
Human Drugs	*25*	*24*	*49*
Animal Drugs	*0*	*0*	*0*
Medical Devices and Radiological Health	*2*	*6*	*8*
Biologics	*1*	*9*	*10*
Bioresearch Monitoring[7]	*172*	*236*	*408*
Total Mission-Critical Inspections Completed	**324**	**497**	**821**

[3] In addition to foreign inspections conducted by U.S.-based investigators, FDA's offices in China and India conducted oversight inspections in those countries when possible. FDA's China office conducted 23 surveillance and eight for-cause compliance follow-up inspections between October 2020 and March 2021.

[4] FDA transitioned to focus solely on mission-critical inspections on March 17, 2020, for domestic inspections and March 10, 2020, for foreign inspections. The data in Table 1 captures all mission-critical inspections after these dates, through March 2021.

[5] Inspection numbers included in this table represent inspections that ended between March 11, 2020 (for foreign inspections) or March 18, 2020 (for domestic inspections) and March 31, 2021. Some of the inspections included were initiated before the announced pauses on foreign and domestic inspections in March 2020.

[6] Inspections of tobacco manufacturing establishments are not considered to be mission critical and therefore are not included in the Table 1 summary of mission-critical inspections.

[7] FDA's Bioresearch Monitoring (BIMO) program is a comprehensive program of inspections and data audits designed to monitor all aspects of the conduct and reporting of FDA regulated research. BIMO inspections are conducted across all FDA commodity Centers. The BIMO program was established to assure the quality and integrity of data submitted to the agency in support of new product approvals and marketing applications, as well as to provide for protection of the rights and welfare of the thousands of human subjects and animals involved in FDA regulated research. More information is available at https://www.fda.gov/inspections-compliance-enforcement-and-criminal-investigations/fda-bioresearch-monitoring-information/bioresearch-monitoring-program-information.

Prioritized Domestic Inspections

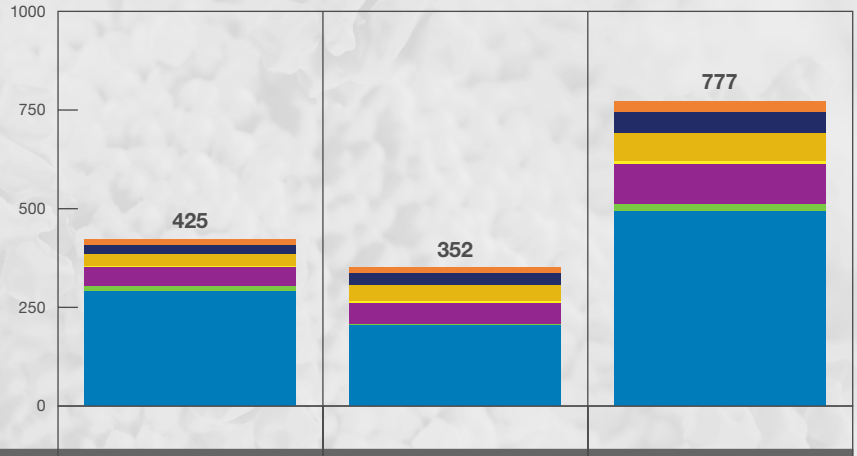
R Y G

As the impact of the pandemic on inspectional work continued, FDA identified an approach for resuming prioritized[8] domestic inspections using the COVID-19 Advisory Rating Level.

Since March 2020, we have conducted a total of 777 prioritized domestic inspections (Table 2).

Table 2

Prioritized Domestic Inspections Conducted, March 2020 through March 2021



Commodity	March-Sept. 2020[9]	Oct.-March 2021	Total
Human and Animal Food	**304**	**207**	**511**
Human Food	*291*	*203*	*494*
Animal Food	*13*	*4*	*17*
Human and Animal Medical Products and Tobacco[10]	**121**	**145**	**266**
Human Drugs	*51*	*55*	*106*
Animal Drugs	*3*	*3*	*6*
Medical Devices and Radiological Health	*30*	*42*	*72*
Biologics	*22*	*31*	*53*
Bioresearch Monitoring	*15*	*14*	*29*
Total Prioritized Domestic Inspections Completed	**425**	**352**	**777**

[8] Prioritized domestic inspections include surveillance and certain for-cause inspections that were not determined to be mission critical. These are prioritized according to factors such as whether the inspection is: intended to follow-up on a previous violative inspection; needed to support a product approval decision where no other application deficiencies are known that would preclude approval; considered high-risk under statutory inspection frequency mandates; or otherwise maximizes the use of limited inspectional resources to achieve the greatest public health impact during the COVID-19 pandemic.

[9] Inspection numbers included in this table represent inspections that ended between March 11, 2020 (for foreign inspections) or March 18, 2020 (for domestic inspections) and March 31, 2021. Some of the inspections included were initiated before the announced pauses on foreign and domestic inspections in March 2020.

[10] There were no tobacco prioritized inspections during this time period, but other tools have been utilized to continue oversight of regulated tobacco products. For example, since January 2021, FDA experts have issued over 80 Warning Letters to firms that were manufacturing and selling unauthorized e-liquids for which the firm did not submit a premarket application by the court-ordered Sept. 9, 2020 deadline.

FDA's Use of Alternative Tools for Oversight of FDA-Regulated Products

Along with the mission-critical and prioritized domestic inspections completed from March 2020 through March 2021, FDA also looked at existing oversight tools and authorities and considered ways to optimize our surveillance and weave new approaches into our oversight scheme. These included:

1

Reviewing records and information requested from facilities in advance or in lieu of certain drug and biological product inspections to support regulatory decisions and actions as authorized under section 704(a)(4) of the Federal Food, Drug, and Cosmetic (FD&C) Act.[11]

During the pandemic, FDA has utilized the section 704(a)(4) authority assigned to FDA to request records and other information from foreign and domestic establishments.

Use of this authority has supported application approval decisions, helped FDA identify areas of focus for future inspections and supported the placement of certain products on import alert based upon violations discovered during this process.

FDA has also leveraged compliance history reviews of facilities, including recalls and product complaints, to assist with prioritization of oversight activities.

On April 14, 2021, we issued a final guidance, "Remote Interactive Evaluations of Drug Manufacturing and Bioresearch Monitoring Facilities During the COVID-19 Public Health Emergency Guidance for Industry," available at https://www.fda.gov/regulatory-information/search-fda-guidance-documents/remote-interactive-evaluations-drug-manufacturing-and-bioresearch-monitoring-facilities-during-covid.

2

Applying remote assessments for individual program areas to evaluate facility records.

FDA has made greater use of remote inspections of human and animal food importers under our Foreign Supplier Verification Program (FSVP) regulation[12] to oversee compliance with FDA Food Safety Modernization Act (FSMA) requirements.[13] The shift to remote FSVP inspections, along with other tools utilized by the foods program, has been critical to ensuring the safety of human and animal food from foreign suppliers during the COVID-19 pandemic.

From March 2020 through March 2021, FDA has conducted approximately 1,183 remote FSVP inspections, including 102 done where the FDA inspection of the foreign supplier was postponed. Remote FSVP inspections have been an effective way to ensure importer compliance with FSMA and have led to placement of several importing firms on an FSVP import alert, subjecting their products to possible detention without physical examination at ports of entry.

[11] FDA's 704(a)(4) authority allows FDA to request, in advance of or in lieu of an inspection, within a reasonable timeframe, within reasonable limits, and in a reasonable manner, records or information that FDA may inspect under section 704(a). This authority is limited to drug and biologic products and does not apply to other programs, including BIMO.

[12] The FSVP regulation requires importers to perform certain risk-based activities to verify that their foreign supplier is producing the food in accordance with U.S. food safety standards. More information about remote FSVP inspections is available at https://www.fda.gov/food/cfsan-constituent-updates/fda-temporarily-conduct-remote-importer-inspections-under-fsvp-due-covid-19#:~:text=The%20FSVP%20rule%20requires%20importers,an%20importer's%20place%20of%20business.

[13] As noted above, FDA's 704(a)(4) authority does not apply to these types of inspections.

3 Leveraging information shared by trusted state, local, tribal, and territorial regulatory partners.

State, local, tribal, and territorial (SLTT) regulatory partners are critical to ensuring the safety of the domestic human and animal food supply, and many SLTT partners continued to conduct inspections under contract or other agreement between the state program and FDA during the pandemic.

From March 2020 to March 2021, SLTT partners were able to conduct 4,273 human food and 1,295 animal food inspections on behalf of FDA, allowing increased oversight of FDA-regulated firms.

4 Leveraging information shared by trusted foreign regulatory partners through mutual recognition and confidentiality agreements.

FDA is also using establishment inspection information from capable foreign regulatory authorities under the Pharmaceutical Annex to the U.S. and European Union Mutual Recognition Agreement (MRA), and the Pharmaceutical Annex to the U.S. and United Kingdom MRA, as well as through other confidentiality commitments. This approach provides additional information regarding a facility's conformance with regulatory requirements, which helps inform decisions related to drug approvals and shortages, and can be used in lieu of an FDA inspection.

Even before COVID-19, FDA was using MRA work to receive more information on foreign drug firms and incorporate in-country work conducted by member countries as part of FDA's surveillance activities.

MRA work has become increasingly vital as non-mission-critical foreign travel was suspended in March 2020. In response to the global pandemic, FDA assessed expanding the use of MRA beyond in-country inspections to include third-country inspections and has begun to accept and classify third-country inspections conducted by countries deemed capable under section 809 of the FD&C Act.

In the human foods program, the Systems Recognition agreements with New Zealand, Canada and Australia allow FDA to greatly reduce the number of foreign inspections in these countries and target inspection resources to countries of greater concern.

FDA's medical device program participates in the Medical Device Single Audit Program (MDSAP) with other International Medical Device Regulators Forum members. A single regulatory audit satisfies the requirements of multiple regulatory jurisdictions, including the U.S. This participation has continued throughout the public health emergency, and FDA has leveraged MDSAP audit reports in lieu of FDA surveillance inspections. In fiscal year (FY) 2020,[14] regulatory audits were conducted at 2,842 medical device manufacturing facilities and an additional 536 were conducted in FY21 as of March 2021. MDSAP reports have provided valuable information on the quality management systems for domestic and foreign device firms.

[14]Fiscal years (FY) cover the period between Oct. 1 and Sept. 30 of the following year. FY20, for example, refers to the period starting Oct. 1, 2019, through Sept. 30, 2020.

05

Sampling and analytical testing of FDA-regulated products both domestically and at international borders.

FDA's use of risk-based product sampling and analysis as an alternative tool supported compliance actions during the COVID-19 public health emergency.

Compliance Actions

From March 1, 2020, to March 16, 2021, FDA placed products from 65 foreign establishments on Import Alert 66-78, "Detention Without Physical Examination of Drugs, Based Upon Analytic Test Results" when laboratory analysis revealed a potential health risk.

The sampling also supported FDA's issuance of Import Alert 62-08, "Detention Without Physical Examination of Alcohol-Based Hand Sanitizers Manufactured in Mexico."

As of March 12, 2021, 347 samples of hand sanitizers had been collected, of which over 130 were determined by laboratory analysis to be in violation of FDA requirements.

In July 2020, FDA established Import Alert 89-18, "Detention Without Physical Examination (DWPE) of Filtering Facepiece Respirators," placing products from 30 firms on the alert, when testing showed the devices failed to meet expected filtration efficiency levels.

The Foods Program created Import Alert 99-43, "Detention Without Physical Examination of Ready-to-Eat (RTE) Human Food Products that Appear to Have Been Prepared, Packed or Held Under Insanitary Conditions." This 402(a)(4) alert allows the agency to add products from firms based on sampling or inspectional evidence or evidence of connection with an outbreak. Since the introduction of the alert in November 2020, products from five firms have been added to this alert in connection with violative products such as woodear mushrooms, sesame seed paste and tahini.

The Foods Program also has placed products from seafood manufacturers on import alerts based on violative sample analysis results. For example, between March 2020 and March 2021, a shrimp producer with *Salmonella* positive shipments and an RTE tuna manufacturer connected with a Salmonella potsdam outbreak were added to import alerts.

06

Refusing entry of unsafe imported products into the U.S.

Use of FDA authority at U.S. ports of entry plays a critical role in keeping dangerous and defective products out of U.S. commerce. Information regarding FDA-regulated products is electronically screened before they enter the U.S. to identify products posing a higher risk to public health.

State of Inspections by Type of Inspection

Pre-Approval, Pre-Market, and Pre-License Inspections for Human and Animal Medical Products and Tobacco

Inspections conducted to inform decisions on applications submitted for medical product approval or authorization are not always required but are done when it is determined an inspection is needed to support the application decision. FDA applies risk factors, such as the novelty of the product, complexity of the manufacturing process, and history of compliance with quality management requirements at the facility where the product will be made, in deciding whether a facility inspection is needed. FDA received over 13,500 applications for medical product approval or authorization since March 2020, and applying risk factors like those described above, determined that approximately 600 needed inspectional oversight of some type before action.

Since March 2020, FDA completed approximately 440 application-based inspections, including both mission-critical and prioritized inspections.[15] As of March 2021, an estimated 68 applications have been delayed due to the inability to conduct pre-approval, pre-market, or pre-license inspections (Table 3).[16] The majority of the delayed applications — 61 of the 68 — are not considered to be mission critical. Inspections in support of the seven delayed applications that are considered mission critical are scheduled to be completed in FY21 (by Sept. 30, 2021).

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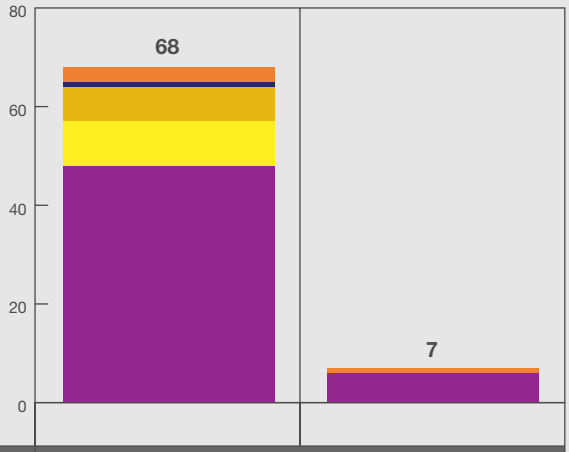


Table 3

Application Decisions Delayed Solely due to a Pending Inspection or Facility Assessment, March 2020 through March 2021

Commodity	Delayed Application Decisions Solely due to Pending Inspection or Facility Assessment	
	Total	Mission Critical
Human Drugs[17]	48	6
Animal Drugs	9	0
Medical Devices and Radiological Health	7	0
Biologics	1	0
Bioresearch Monitoring	3	1
Tobacco	0	0
Total Applications Delayed Pending Inspection	**68**	**7**

[15] Not all inspections identified as needed to support an approval decision are considered mission critical. FDA applies the mission-critical criteria on a case-by-case basis to determine if approval of the product is critical to FDA's public health mission.

[16] Decisions regarding applications are based on the totality of the information available to FDA, including use of alternative oversight tools. Delays in action on applications are typically not due solely to a pending facility inspection. Also, there is not a one-to-one correlation between the number of applications and the number of inspections needed. Pending applications sometimes require multiple inspections before action can be taken.

[17] These numbers include applications for biological products that are regulated by FDA's Center for Drug Evaluation and Research.

For-Cause Inspections for All FDA-Regulated Products

For-cause inspections are conducted, for example, where there are consumer complaints or reports of adverse events, and can arise throughout the year due to unforeseen emergency situations. Most cannot be planned for during specific time periods and are not included in this analysis. FDA prioritizes for-cause inspections, and depending on the circumstance in each case, these may be considered mission critical.

FDA is able to quantify missed performance goal target dates for some for-cause inspections. For example, FDA plans and publicly tracks follow-up to compliance action(s) related to a prior domestic inspection that was classified as "official action indicated" (OAI).[18] Compliance action follow-up allows FDA to ensure firms have corrected any previously observed violations that resulted in a compliance action, because product safety or quality could be at risk. These follow-up inspections are considered for-cause and can be planned and tracked based on an agency-wide public performance target.[19] Depending on the potential risk to public health, the need for this kind of compliance follow-up inspection may be considered mission critical.

In FY20, FDA planned to conduct 79 domestic follow-up activities related to OAI/compliance follow-up to meet our performance target, and was able to complete 90% of these, delaying eight in FY20. In FY21, FDA planned to conduct 164 domestic OAI/compliance follow-up activities to meet our performance target, which includes the eight postponed in FY20. As of March 2021, FDA has conducted 49 of the 164 planned, leaving 115 OAI/compliance follow-up activities still to be conducted in FY21 to meet our performance target (Table 4).[20]

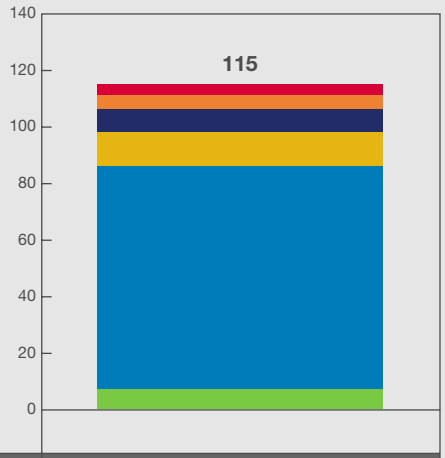


Table 4

Remaining Domestic For-Cause (OAI/compliance follow-up) Inspections as of March 2021

Commodity	For-Cause (OAI/Compliance Follow-up) Remaining through FY21
Human and Animal Food	**7**
Human and Animal Medical Products and Tobacco	**108**
Human Drugs and Animal Drugs	*79*
Medical Devices and Radiological Health	*12*
Biologics	*8*
Bioresearch Monitoring	*5*
Tobacco	*4*
Total OAI/Compliance Follow-up Inspections Remaining	**115**

[18] After an inspection, FDA determines if the areas evaluated are in compliance with applicable laws and regulations. FDA classifies the inspection with one of three classifications: (1) No Action Indicated (NAI), which means no objectionable conditions or practices were found during the inspection (or the objectionable conditions found do not justify further regulatory action); (2) Voluntary Action Indicated (VAI), which means objectionable conditions or practices were found but the agency is not prepared to take or recommend any administrative or regulatory action; or (3) Official Action Indicated (OAI), which means regulatory and/or administrative actions will be recommended.

[19] For more information on this performance target, please visit FDATRACK. This performance goal is tracked on a three year rolling basis. Due to the nature of regulatory actions and subsequent follow-up conducted by FDA, the duration of these events can vary considerably. A three year rolling timeframe also ensures tracking of all significant violations that require attention.

[20] Inspections are not always necessary to achieve follow-up. Some follow-up can be conducted by other means, such as through review of records establishing that effective corrective actions have been implemented or the use of other oversight tools; in some cases, establishments go out of business and no longer require an inspection.

Surveillance Inspections

Surveillance inspections monitor conformance to FDA requirements to identify quality problems and adverse trends. Where problems are uncovered, FDA can develop strategies to mitigate them. During the COVID-19 pandemic, routine surveillance inspections have not been considered mission critical.[21] When establishing priorities during the pandemic, the majority of routine surveillance inspections were postponed, and therefore constitute the majority of FDA foreign and domestic inspections not completed due to the pandemic.

Surveillance inspections are planned in advance by applying established risk factors and statutory inspection frequency mandates, which vary by commodity. FDA plans this workload before the beginning of each fiscal year (October through September).

Frequency of Surveillance Inspections

Routine surveillance inspections are an assessment at a point in time, during which FDA investigators conduct real-time observations, primarily to ensure that firms are meeting the appropriate quality management requirements. Such inspections are one of many oversight tools we use. However, firms continue to maintain primary responsibility for ensuring the quality of their products and regulatory compliance.

The frequency of routine surveillance inspections is mandated by provisions in the FD&C Act and varies across and within FDA-regulated commodity areas. Under section 510(h) of the FD&C Act, registered drug, biologics, and medical device establishments are generally inspected on a risk-based schedule. Under this approach, facilities are inspected, more or less frequently, according to the potential risk presented by the establishment's operations.

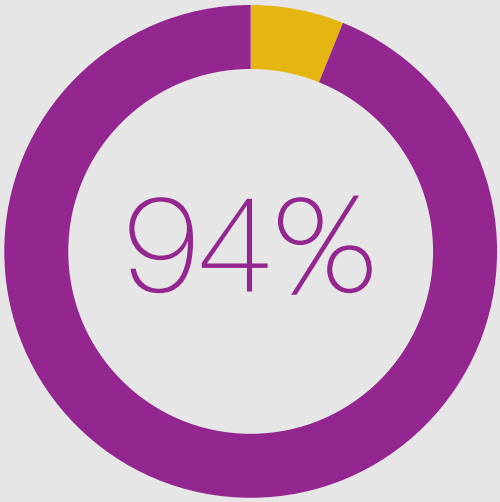
Some FDA-regulated product areas are subject to statutory inspection frequencies that differ from the general risk-based approach. For example, under the Mammography Quality Standards Act (MQSA), mammography facilities are certified by accredited FDA-approved bodies. These 8,600 facilities must be inspected annually.[22]

The frequency of human and animal surveillance inspections for registered food facilities is also governed by statute. Section 421 of the FD&C Act was added by FSMA in January 2011 and requires FDA to inspect domestic food facilities (such as manufacturers/processors) at specified frequencies based on two broad categories of risk. High-risk food facilities in the U.S. are to be inspected at least once every three years, while non-high-risk food facilities are to be inspected at least once every five years.[23] In FY21, approximately 55% of the human food facilities that are required to be inspected based on this frequency mandate are considered non-high-risk.

[21] In determining whether an inspection is mission critical, the FDA weighs, among other things, its resources and capabilities for the inspection during the public health emergency against the public health risk or benefit posed by the potential inspection site.

[22] FDA-issued guidance, Enforcement Policy for the Quality Standards of the Mammography Quality Standards Act During the Covid-19 Public Health Emergency, explains that FDA generally does not intend to object to failure to meet certain quality standards requirements, including the annual medical physicist survey requirement, normally assessed during the MQSA inspection of "at least once a year," as long as the facility ensures the survey will be completed as soon as possible, and documents certain information related to the delay due to the public health emergency.

[23] For the initial inspection cycles, FSMA required FDA to inspect domestic high-risk food facilities at least once during a five year period, and non-high-risk facilities at least once within a seven year period. FDA Food Safety Modernization Act, Pub. L. 111-353 (Jan. 4, 2011).

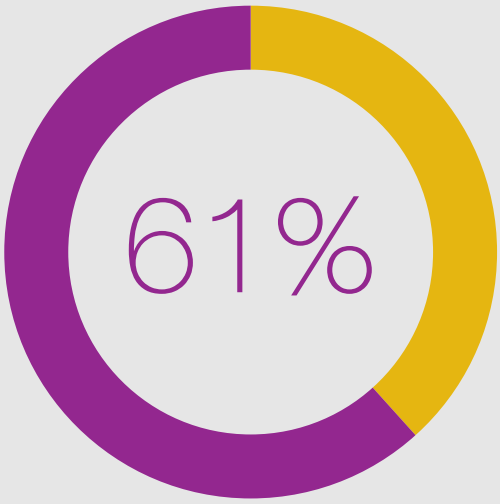


FY19

18,000
Planned Inspections

16,920
Inspections Completed

For example, in FY19, FDA planned to conduct approximately 18,000 routine surveillance inspections across all commodities, and completed 94% of this target, with some postponed due to a government shutdown that lasted 35 days.[24]



FY20

21,000
Planned Inspections

Nearly 13,000
Inspections Completed
(before onset of pandemic)

FDA planned to inspect nearly 21,000 establishments across all commodities to meet FY20 surveillance inspection targets.[25] The agency, either utilizing FDA investigators or in conjunction with our regulatory partners, had conducted nearly 13,000 of these surveillance inspections before the onset of the pandemic, postponing nearly 8,000 non-mission-critical surveillance inspections.

FDA has planned for 26,250 surveillance inspections in FY21, reflecting those identified through our usual planning processes and criteria, and rolling over any remaining surveillance inspections postponed from FY20.[26]

Frequency of Surveillance Inspections (cont.)

FSMA also mandated an increase in the number and frequency of foreign food facility inspections, starting with a minimum of 600 inspections by January 2012, and each year for five years, doubling the number of foreign food facility inspections conducted during the previous year. At the end of this five year period, FDA was required to inspect a minimum of 19,200 foreign food facilities regardless of risk to public health. FDA previously has said that conducting this number of foreign food facility inspections was not achievable.

FDA works closely with state, local, tribal and territorial regulatory partners who conduct a significant number of inspections of domestic food facilities on our behalf, consistent with our FSMA inspection frequency mandates. We have also employed other tools to help us manage our oversight of foreign food facilities, such as the Voluntary Qualified Importer Program, Foreign Supplier Verification Programs, information sharing with foreign regulatory partners, sampling products at the border, and the process for placing a product or firm on import alert, which results in a product or importer receiving heightened scrutiny at U.S. ports of entry.

However, given the very large number of foreign and domestic food facilities to be inspected, and the level of existing FDA resources for this work,[27] fully meeting the mandates is challenging, and has sometimes been unattainable since the requirements went into effect in 2011. During the development of FSMA, FDA acknowledged challenges about inspection frequency mandates and the need for greater flexibility in deploying its field resources. FDA is ready to work with Congress on changes that would allow the agency to conduct inspections of human and animal food facilities at a more risk-based frequency determined by a data-driven, analytical approach to deploying available resources. In the agency's experience, such an approach would result in inspectional resources going to where they can optimize public health impacts.

[24] Nearly 70% of the postponed FY19 inspections were FSMA frequency-mandated domestic human food inspections, with the majority of the remaining classified as non-high-risk.

[25] "Surveillance inspection targets" represent the number of routine inspections of establishments FDA aims to conduct during a fiscal year, based on a risk model, negotiated work planning between ORA and aligned Centers and/or any regulatory frequency mandates.

[26] Most, but not all, inspections postponed in FY20 are included in FDA's FY21 planned inspections. Those not carried over may have, for example, been planned for facilities that have gone out of business, which FDA may have been able to confirm without an inspection. Postponed FY20 annual MQSA establishment inspections will be included in FY21, but only for their routine annual inspection. Establishments will not be scheduled for two inspections because of postponement. Many routine surveillance inspections are based on risk. FDA was able to use remote tools to provide oversight that lowered the relative risk of some establishments. In reassessing the risk-based list for FY21, these establishments may not be included because there may be higher-risk establishments that need to be inspected.

[27] For example, in FY18, each high-risk foreign food facility inspection cost an average of $24,500, and the foreign inspection trips averaged three weeks in length.

As of March 2021, FDA has inspected 2,953 of these firms by conducting some prioritized domestic inspections where and when it was safe to do so and leveraging our regulatory partnerships. With these completed surveillance inspections, FDA estimates 23,297 non-mission-critical surveillance inspections still to be conducted in FY21 (Table 5). Some of the remaining surveillance inspections will be conducted by our regulatory partners. However, if the agency's partners are unable to conduct these inspections, FDA will be responsible for carrying them out.[28]

Given the large number of outstanding inspections, prioritization will need to occur. Plans for how FDA may tackle this workload are outlined below and are largely dependent on the course of the COVID-19 pandemic, among other factors. Statutory inspection frequency mandates play a significant role in the type and number of routine surveillance inspections that remain to be conducted. Over 15,500 (nearly 67%) of the 23,297 surveillance inspections still to be conducted in FY21 represent human food facilities that are required to be inspected according to a statutory frequency. As previously stated, the inspection frequency of both domestic and foreign human and animal food facilities required by statute has been challenging, and in some cases, unattainable.

The uncertainty created by the COVID-19 pandemic means that FDA will continue to conduct most mission-critical inspections and prioritized surveillance inspections; however, inspections that do not meet these criteria may be postponed due to the pandemic.

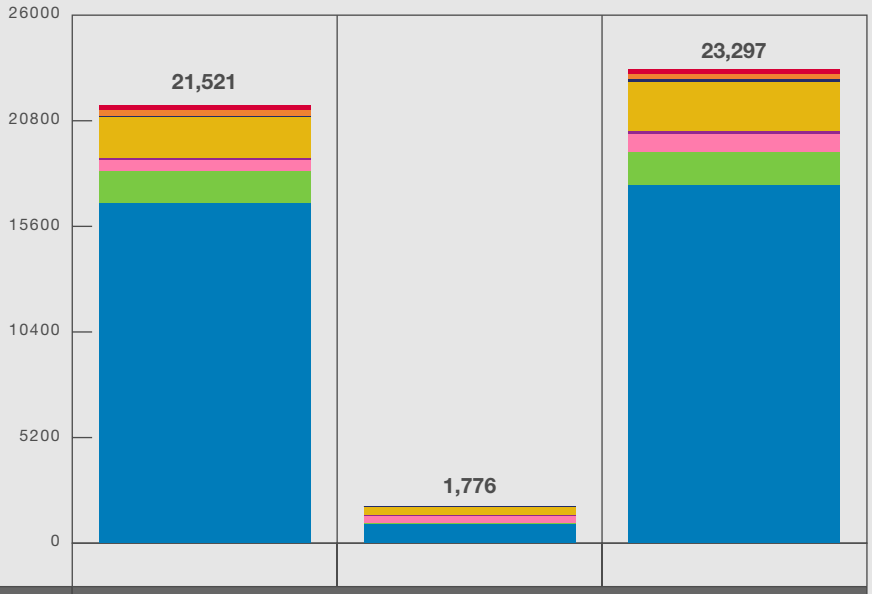


Table 5

FY21 Remaining Surveillance Inspections as of March 2021

Commodity	Surveillance Remaining through FY21		
	Domestic	Foreign	Total
Human and Animal Food	**18,292**	**953**	**19,245**
Human Food	*16,619*	*921*	*17,540**
Animal Food[29]	*1,673*	*32*	*1,705*
Human and Animal Medical Products and Tobacco	**3,229**	**823**	**4,052**
Human Drugs	*515*	*342*	*857*
Animal Drugs	*124*	*33*	*157*
Medical Devices and Radiological Health	*2,002*	*424*	*2,426***
Biologics	*86*	*24*	*110*
Bioresearch Monitoring	*279*	*0*	*279*
Tobacco[30]	*223*	*0*	*223*
Estimated Total Surveillance Inspections Remaining	**21,521**	**1,776**	**23,297**

*includes 15,605 remaining FSMA frequency-mandated inspections

**includes remaining Medical Device, Electronic Products, and MQSA inspections for which FDA is responsible

[28] MQSA inspections conducted by state partners are excluded from remaining totals and targets as they are not part of FDA's work plan.

[29] Approximately 85% of the projected surveillance inspections planned for animal food will be conducted by state partners.

[30] While not part of FDA's Office of Regulatory Affairs' routine surveillance work plan, FDA, in conjunction with state, local, tribal and territorial regulatory partners, also conducts tobacco product retail establishment oversight inspections, including "vape" retail establishment inspections. In FY20, FDA inspected 66,112 such establishments, approximately 55% of the inspectional target.

Roadmap Going Forward

COVID-19 has challenged FDA's ability to complete inspections and required the agency to think differently about how to meet oversight responsibilities and fulfill its public health mission going forward. FDA is working to address these challenges through the following strategies:

Adapting

While physical access to facilities provides a unique view into the components of a facility's operations, yielding insights that are important for regulatory oversight, inspections have not always been possible during the pandemic. FDA has adapted to this reality by exploring the use of existing authorities to conduct remote oversight, and by developing new tools to extend our reach in ensuring the safety and quality of regulated products. As noted above, FDA recently published a guidance on our use of remote interactive evaluations, using for example, livestreaming video of drug manufacturing facilities.[31]

Prioritizing

To help construct a systematic method for tackling postponed oversight activities while achieving our oversight goals, FDA reviewed data showing the impact of the COVID-19 pandemic on inspections, established prioritization plans by commodity, and developed an overall prioritization approach for inspectional operations for all regulated commodities. FDA has applied this prioritization during the COVID-19 public health emergency and expects to continue to apply it until the end of the pandemic and after travel restrictions and other impediments to inspections are eased or lifted. Table 6 shows the elements of these prioritization plans, which consider public health risks related to conducting an inspection or sampling assignment, such as the impact of the product's availability on public health, as well as investigator safety and travel restrictions/advisories.

"… FDA recently published a guidance on our use of remote interactive evaluations…"

[31] See https://www.fda.gov/regulatory-information/search-fda-guidance-documents/remote-interactive-evaluations-drug-manufacturing-and-bioresearch-monitoring-facilities-during-covid

Table 6

Inspectional Priority/Tier by Regulated Commodity

COMMODITY	TIER 1: MISSION CRITICAL	TIER 2: HIGHER PRIORITY	TIER 3: LOWER PRIORITY
Human and Animal Food	Agency crisis or emergency response For-cause work	For-cause but not considered mission critical	Routine-surveillance, including non-high-risk* inspection and sampling assignment
	Other mission-critical special assignment	High-priority and high-risk* inspection and sampling	
Human and Animal Drugs	Agency crisis or emergency response activities	For-cause but not considered mission critical	Post-approval inspection
	For-cause public health emergency work		
	Essential medicine assignment	Application-approval inspection not considered mission critical	
	Application-approval for high-priority products	Compounding inspection not considered mission critical	Routine-surveillance, including inspection and sampling assignment
	Mission-critical violation follow-up		
Medical Devices and Radiological Health	Essential product assignment	Application-approval inspection not considered mission critical	Post-approval inspection
	Agency crisis or emergency response For-cause work	For-cause but not considered mission critical	
	Application-approval for high-priority product	Overdue MQSA inspection*	Routine-surveillance, including inspection and sampling assignment
	Mission-critical violation follow-up	High-risk assignment based on Risk Based Work Plan	
Biologics	Emergency-use authorization product	Application-approval inspection not considered mission critical	Routine-surveillance inspection
	Agency crisis or emergency response For-cause work	For-cause but not considered mission critical	
	Application-approval for high-priority product		
Bioresearch Monitoring	Agency crisis or emergency response For-cause work	Application-approval inspection not considered mission critical	Routine-surveillance inspection
	Application-approval for high-priority product	For-cause but not considered mission critical	
Tobacco	Agency crisis or emergency response For-cause work	Application-approval inspection	For-cause inspection but not considered highest-priority
		For-cause but not considered mission critical	Routine-surveillance assignment

* Inspection frequency is mandated by statute

As Table 6 shows, mission-critical inspections will continue to be prioritized going forward. Routine surveillance inspections will continue to be conducted; however, the agency will prioritize higher-tiered needs. Thus, a longer interval between inspections will occur for lower-tiered inspection assignments as the agency adjusts to the impact of the COVID-19 pandemic. This means that postponed inspections will be prioritized based on risk and conducted over a longer period of time, ultimately increasing the amount of time between inspections of certain lower-risk facilities. The scenarios below estimate the routine surveillance work that could be accomplished, given certain assumptions. However, FDA recognizes the overall challenge presented by the volume of surveillance work, particularly related to lower-risk inspections that are nevertheless mandated to occur at certain frequencies (e.g., those mandated by FSMA, as discussed above). We will be exploring ways to manage this challenge moving forward.

Outlined below are three possible near-term scenarios that form the foundation for this roadmap. For each of the scenarios, we present assumptions regarding anticipated approximate timeframes, real-world conditions in relation to the public health emergency, and FDA's portfolio of inspectional adaptations. FDA will first conduct mission-critical work and continue to prioritize pre-approval, pre-market, pre-license and for-cause inspections, and will ensure that high-priority risk-based inspections are completed before addressing postponed surveillance work. The scenarios estimate the surveillance work the agency can reasonably accomplish given:

1. A gradual transition to standard operations (Base-Case).
2. An immediate transition to standard operations (Best-Case).
3. Maintenance of an emergency-operations status (Worst-Case).

Methodology for Scenario-Based Estimates

Several factors will impact how many surveillance inspections can be completed through the remainder of the fiscal year (Sept. 30, 2021):

- Current investigators available to conduct inspections. FDA is using staffing information as of March 2021 for this analysis.
- COVID-19 administrative leave[32] impact on available hours to conduct inspections. Historical COVID-19 administrative leave was analyzed to estimate limitations.
- Other work FDA investigators will need to continue to conduct, including any outstanding and new pre-approval, pre-market, pre-license, and for-cause work that will come up throughout the remainder of the fiscal year. FDA is estimating other work to be conducted based on current and historical data and work planning information. Any significant increase would impact resources for completing surveillance inspections.
- Other disruptors, such as public emergencies that may affect staffing (e.g., natural disasters that may require deployment of FDA Commissioned Corps officers of the U.S. Public Health Service), environmental factors and other constraints due to the lifting of COVID-19 restrictions, such as postponed leave for employees.
- Challenges inherent in planning foreign versus domestic work within shortened time periods. In all scenarios, FDA estimates that, given the length of time required to plan foreign inspections,[33] no foreign surveillance inspections conducted by inspectors traveling from the U.S. will be achievable before September 2021 using U.S.-based staff. FDA's foreign offices have accomplished a limited number of foreign surveillance inspections during FY21.

[32] During the pandemic, the agency has authorized administrative leave (excused absences) for employees managing childcare and eldercare responsibilities during workdays, up to 20 hours per pay period.

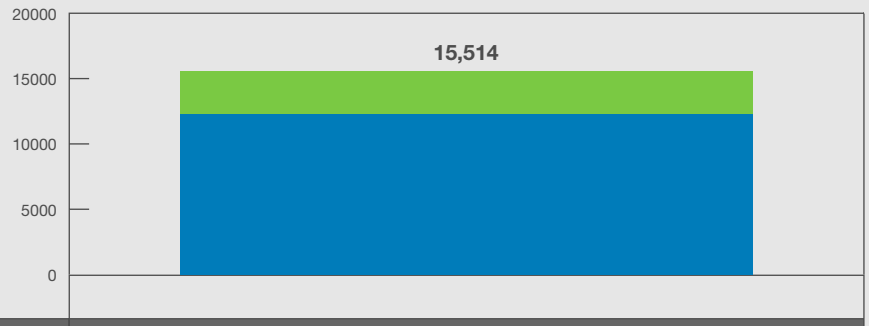
[33] Challenges with foreign trip planning include U.S. Department of State training and clearance processes, as well as additional country-specific considerations due to the pandemic.

The number of remaining surveillance inspections that can be conducted using our regulatory partners will also influence how many inspections FDA will need to conduct. For this analysis, FDA is estimating that 35% of our remaining human and animal food FY21 domestic surveillance inspections may be conducted by state, local, tribal and territorial partners,[34] while 25% of our remaining foreign human and animal medical product inspections may be conducted by foreign partners. These estimates are based on historical inspection numbers and known planned collaboration.

Given the challenges with foreign trip planning, FDA focuses solely on domestic surveillance work in the scenarios outlined. Mission-critical foreign inspections will continue to be the priority for foreign work and FDA will continue to conduct these foreign inspections. Focusing solely on domestic surveillance inspections to be conducted by FDA investigators (not regulatory partners), FDA estimates that 15,514 inspections still need to be conducted in FY21 (Table 7).

Table 7

FY21 Remaining Domestic Surveillance Inspections as of March 2021



Commodity	Domestic Surveillance Inspections Remaining through FY21
Human and Animal Food	12,285
Human and Animal Medical Products and Tobacco	3,229
Total Domestic Surveillance Inspections Remaining	**15,514**

Using data from Table 7 and applying the factors from the methodology described above, FDA applied standard work planning methodology to estimate the number of surveillance inspections that FDA investigators will be able to conduct per each scenario below. The sequential order does not reflect assumptions about a scenario's likelihood.

[34] This includes an estimate of 30% of our remaining FSMA frequency-mandated human food inspections and 85% of our remaining animal food inspections will be conducted by our regulatory partners.

Base-Case Scenario: Gradual Transition to Standard Operations

Gradual progress with full transition by mid-summer

In a Base-Case scenario of continuing progress toward resumption of standard operational levels by mid-summer 2021, FDA will continue to use the COVID-19 Advisory Level to assess all geographic surveillance inspection capabilities until full transition to standard operations in July 2021. The COVID-19 Advisory Level uses real-time data to qualitatively assess the number of COVID-19 cases in a local area based on state and national data.

Base-Case Scenario Assumptions:

- May 2021 through July 2021: FDA uses the COVID-19 Advisory Level to focus on mission-critical and prioritized domestic inspections.
- July 2021 through September 2021: FDA resumes standard operations. This includes:
  - No travel or establishment access restrictions.
  - Current investigators are available to conduct inspections.
  - Suspend use of the COVID-19 Advisory Level.
- COVID-19 staff administrative leave levels remain constant through the end of fiscal year.

FDA estimates that roughly 14% of the 15,514 domestic surveillance inspections still to be conducted in FY21 will be achievable in the Base-Case scenario (Table 8). These estimates vary significantly between commodity areas. Given that FSMA-mandated human and animal food surveillance inspections constitute the large majority of surveillance inspections to be conducted, FDA will face the greatest challenge meeting these targets.

Table 8

Base-Case Scenario – Gradual Transition to Standard Operations Estimates

Commodity	FDA Domestic Remaining through FY21	Base-Case Scenario Estimated Domestic Achievable FY21
Human and Animal Food	12,285	1,272 (10%)
Human and Animal Medical Products	3,229	851 (26%)
Grand Total	**15,514**	**2,123 (14%)**

Given that FDA is estimating that most surveillance inspections will not be conducted in the Base-Case scenario, we will make optimum use of remote tools to bridge the gap. The agency has developed a process to conduct voluntary remote regulatory assessments of domestic human and animal food establishments during the pandemic because, as noted above, the regulatory authority under 704(a)(4) does not apply to FDA oversight of food. FDA will continue to utilize these assessments in the future, which provide an opportunity for increased oversight of the food supply. However, these remote assessments do not count towards the FSMA surveillance inspection requirement.

Consistent with FDA's New Era of Smarter Food Safety vision, we plan to further leverage new and emerging technologies and data-driven, predictive analytical approaches to strengthen our compliance oversight work. This could involve working with Congress to make the policy changes needed to modernize and allow greater flexibility to achieve FSMA goals, which would include deploying tools that may not have been contemplated when FSMA was passed over a decade ago.

For human and animal medical products, many commodity areas have utilized remote tools to either help achieve surveillance targets or prioritize inspections within the site selection models that prioritize facilities for surveillance coverage. Some inspections cannot benefit from remote tools, such as the MQSA annual mandate inspections. These inspections constitute 25% of the 3,229 domestic human and animal medical product inspections remaining. For the domestic human and animal medical product inspections that may allow the use of remote tools, FDA will continue to use these tools to the maximum extent possible, particularly for lower-risk inspections.

"Consistent with FDA's New Era of Smarter Food Safety vision, we plan to further leverage new and emerging technologies and data-driven, predictive analytical approaches to strengthen our compliance oversight work."

Best-Case Scenario: Immediate Transition to Standard Operations

This scenario assumes travel restrictions are lifted in all states and countries, that FDA can plan trips quickly across the U.S. and within foreign countries (i.e., there are fewer barriers to inspections, including fewer travel restrictions) and there are no other emergency delays of prioritized work. In this scenario, FDA assumes we will immediately transition to standard operations as the following assumptions are met.

Best-Case Scenario Assumptions:

- FDA assumes standard operations in May 2021.
- There are no travel prohibitions or restrictions on access to regulated establishments/facilities.
- Current investigators are available to conduct inspections.
- The COVID-19 Advisory Level is not being used.
- The agency's staff maintains the use of COVID-19 administrative leave levels through the end of the fiscal year.

FDA estimates that 27% of all domestic surveillance inspections still to be conducted in FY21 are achievable in the Best-Case Scenario. As with the Base-Case Scenario, estimates vary significantly between commodities (Table 9).

Table 9

Best-Case Scenario – Immediate Transition to Standard Operations Estimates

Commodity	Domestic Remaining through FY21	Best-Case Scenario Estimated Domestic Achievable FY21
Human and Animal Food	12,285	2,579 (21%)
Human and Animal Medical Products	3,229	1,613 (50%)
Grand Total	**15,514**	**4,192 (27%)**

Similar to the Base-Case Scenario, FDA will assume in this scenario that the majority of surveillance inspection targets will not be achievable. The FSMA domestic non-high-risk surveillance inspection mandate remains the primary challenge in the Best-Case Scenario. We recognize that, even under Best-Case conditions, a large number of inspections will remain postponed. As discussed above, we will continue to make optimum use of remote tools and other oversight authorities to address this issue.

Worst-Case Scenario: Emergency Operations Status Resurgence of COVID-19 and Tightened Restrictions

Should there be a resurgence of COVID-19, or the appearance of new variants of the virus, FDA will leverage the regulatory tools it has employed throughout the public health emergency. In such a situation, safety of our personnel will remain paramount. FDA operations will adopt a posture aligned with the following assumptions.

Worst-Case Scenario Assumptions:

- New variants emerge and/or new COVID-19 challenges occur.
- There is significant risk to staff.
- There are significant restrictions on travel and/or restrictions on access to regulated establishments/facilities.
- The COVID-19 Advisory Level indicates there are few or no safe locations to conduct inspections.
- The agency's staff maintains the use of COVID-19 administrative leave levels through the end of the fiscal year.

Under the Worst-Case Scenario, FDA would focus on oversight work most critical to its mission and limit inspection activities accordingly. FDA would increase focus and reliance on alternative oversight tools as non-mission-critical surveillance work could not be accomplished.

Looking Forward

COVID-19 is an unprecedented public health emergency that has both challenged traditional oversight activities and afforded FDA an opportunity to consider regulatory approaches that increase efficiency while also ensuring product quality and fulfilling FDA's public health mission. FDA continues to work to advance regulatory convergence and to expand mutual reliance with trusted regulatory partners. We are also working to leverage collaborative approaches across the agency to foster alignment around modernization policies and practices and determine how they can best be deployed to meet our mission. The agency is also expanding our workforce to help us better face the challenges ahead.

The agency will soon begin a multi-year modernization effort to further transform our data enterprise platforms and cross-program interoperability infrastructure to better support innovation related to our regulatory oversight role, including remote approaches. This modernization effort will include a review of approaches to regulatory oversight using next-generation assessment technologies and improvements as well as a review of available authorities for any potential legislative proposals.

FDA will also continue to work to enhance our coordinated approach to inspections, information sharing, and other processes to accelerate evaluation and potential integration of new oversight methods and tools. This will allow consistent use of tools and technologies and provide additional flexibility to enhance data-driven, risk-based oversight modeling across the agency and the nation's public health system.

Looking to the future, FDA will maximize use of every available approach and resource to meet its regulatory responsibilities and to achieve optimal public health outcomes. Throughout the remainder of the COVID-19 public health emergency, we will stay focused on mission-critical and prioritized inspections. Routine surveillance work at facilities that pose less risk will continue to be lower priority while we utilize additional tools for continued regulatory oversight in protecting public health.

The resilience and nimbleness of the FDA workforce is integral to these goals, as is the safety and well-being of FDA staff. We remain steadfast in advancing our mandate to protect and promote public health and to ensure that the products we regulate are safe and of high quality for all Americans.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