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MEDICAL DEVICES

Status of FDA's Program for Inspections by Accredited Organizations



G A O

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Highlights of [GAO-07-157](#), a report to congressional committees

Why GAO Did This Study

The Food and Drug Administration (FDA) inspects domestic and foreign establishments where U.S.-marketed medical devices are manufactured to assess compliance with FDA's quality system requirements for ensuring good manufacturing practices and other applicable requirements. The Medical Device User Fee and Modernization Act of 2002 (MDUFMA) required FDA to accredit organizations to inspect certain establishments where devices that are marketed in both the United States and other countries are manufactured.

This report includes information that MDUFMA requires GAO to provide on (1) the number of organizations that sought accreditation, the number that were accredited, and reasons for denial of accreditation and (2) the number of inspections conducted by accredited organizations. It also includes information about factors that could influence manufacturers' interest in voluntarily requesting and paying for an inspection by an accredited organization.

GAO examined FDA documents, interviewed FDA officials, and obtained information from FDA on the number of inspections conducted from March 11, 2004—when FDA first cleared an accredited organization to conduct independent inspections—through October 31, 2006. GAO also interviewed affected entities, including accredited organizations and medical device manufacturers.

www.gao.gov/cgi-bin/getrpt?GAO-07-157.

To view the full product, including the scope and methodology, click on the link above. For more information, contact Marcia Crosse at (202) 512-7119 or crossem@gao.gov.

MEDICAL DEVICES

Status of FDA's Program for Inspections by Accredited Organizations

What GAO Found

FDA granted accreditation to 17 of 23 organizations that applied to conduct inspections of establishments where medical devices are manufactured. FDA denied accreditation to applicants that did not meet minimum criteria because their applications were not correctly completed or did not demonstrate the applicants' technical competence. During the first accreditation year, which started in April 2003, FDA received 23 applications. Of the 23 applications, 2 were not correctly completed and 2 did not demonstrate that the applicants had adequate technical competence. Although the remaining 19 applicants met the minimum criteria, MDUFMA limited the number of organizations that could be accredited to 15 during the first year after FDA issued criteria for accreditation. FDA scored the 19 applications against these criteria and rank-ordered them. It accredited the 15 organizations with the highest ranking applications, but 1 organization later withdrew. After the initial accreditation year, FDA received 2 more applications for accreditation and it accredited both organizations. These 16 organizations remained accredited as of October 31, 2006.

Between March 11, 2004, and October 31, 2006, two accredited organizations conducted independent inspections—one inspection of a domestic establishment and one inspection of a foreign establishment. During that same period, 36 inspections of domestic establishments and 1 inspection of a foreign establishment were conducted by accredited organizations jointly with FDA officials as part of training that FDA requires of accredited organizations. As of October 31, 2006, individuals from 7 of the 16 accredited organizations had completed all training requirements and were cleared to conduct independent inspections.

Several factors may influence manufacturers' interest in voluntarily requesting an inspection by an accredited organization. According to FDA and representatives of affected entities, there are potential incentives and disincentives to requesting an inspection, as well as reasons for deferring participation in the program. Potential incentives include the opportunity to reduce the number of inspections conducted to meet FDA and other countries' requirements and to control the scheduling of the inspection. Potential disincentives include bearing the cost for the inspection and uncertainty about the potential consequences of making a commitment to having an inspection to assess compliance with FDA requirements in the near future. Some manufacturers might be deferring participation. For example, manufacturers that already contract with a specific accredited organization to conduct inspections to meet the requirements of other countries might defer participation until FDA has cleared that organization to conduct independent inspections.

The Department of Health and Human Services provided technical comments on a draft of this report, which GAO incorporated as appropriate.

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Abbreviations

FDA	Food and Drug Administration
GMP	good manufacturing practices
MDUFMA	Medical Device User Fee and Modernization Act of 2002

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United States Government Accountability Office
Washington, DC 20548

January 5, 2007

The Honorable Edward M. Kennedy
Chairman
The Honorable Michael B. Enzi
Ranking Minority Member
Committee on Health, Education, Labor and Pensions
United States Senate

The Honorable John D. Dingell
Chairman
The Honorable Joe Barton
Ranking Minority Member
Committee on Energy and Commerce
House of Representatives

The Food and Drug Administration (FDA) is responsible for regulating medical devices that are marketed in the United States.¹ As part of its responsibilities, FDA inspects domestic and foreign establishments² where medical devices that are marketed in the United States are manufactured³ to assess compliance with FDA's quality system requirements⁴ for ensuring good manufacturing practices (GMP) and other applicable requirements. During quality system inspections, FDA investigators examine manufacturing controls, processes, and records. These inspections are

¹Medical devices include instruments, apparatuses, machines, and implants that are intended for use to diagnose, cure, treat, or prevent disease, or to affect the structure or any function of the body. 21 U.S.C. § 321(h).

²FDA regulations define an establishment as a place of business under one management at one general physical location at which a device is manufactured, assembled, or otherwise processed. 21 C.F.R. § 807.3(c) (2006). Medical device manufacturers may have more than one establishment.

³We use the term "manufacture" to refer to activities including manufacturing, preparing, and processing devices.

⁴The quality system regulation requires, among other things, that domestic or foreign manufacturers have a quality system in place to implement current good manufacturing practices in the design, manufacture, packaging, labeling, storage, installation, and servicing of finished medical devices intended for human use in the United States. A quality system includes the organizational structure, responsibilities, procedures, processes, and resources for implementing quality management. 21 C.F.R. §§ 820.1, 820.3(v), 820.20.

FDA's primary means of assuring that the safety and effectiveness of medical devices are not jeopardized by poor manufacturing practices. FDA is required, by statute, to inspect certain domestic establishments where medical devices are manufactured at least once every 2 years.⁵ FDA has not, however, been meeting this requirement. Instead, 5 or 6 years sometimes pass between FDA inspections at any one establishment. In addition to FDA inspections, many foreign countries require inspections of establishments where medical devices are manufactured. As a result, manufacturers that market their devices internationally may face multiple inspections of their establishments to assess conformity with quality system requirements of multiple regulatory authorities. Some foreign countries have accredited, certified, or otherwise recognized organizations to conduct inspections.

In 2002, the U.S. House of Representatives Committee on Energy and Commerce recognized that the growth of the medical device industry, combined with resource constraints at FDA, had made it difficult for FDA to meet its obligation to inspect, every 2 years, domestic establishments where class II and class III medical devices are manufactured.⁶ It also noted that some manufacturers have faced an increase in the number of inspections required by foreign countries, and that the number of inspections could be reduced if the manufacturers could contract with one of these recognized organizations to conduct a single inspection that would satisfy the requirements of both the FDA and foreign countries.⁷ The Medical Device User Fee and Modernization Act of 2002 (MDUFMA), enacted in October 2002, included provisions designed to (1) increase the number of medical device manufacturers' establishments that are inspected for compliance with FDA requirements and (2) help manufacturers who market medical devices in both the United States and

⁵21 U.S.C. § 360(h). Although there is no similar requirement for FDA's inspections of foreign medical device establishments, the products manufactured at such establishments may be prohibited from importation into the United States if an FDA request to inspect is denied. 21 U.S.C. § 381(a), 21 C.F.R. § 820.1(d) (2006).

⁶Medical devices are classified into one of three classes. Class I includes "low risk" devices, such as tongue depressors, elastic bandages, and bedpans. Class II includes "medium risk" devices, such as syringes, hearing aids, and electrocardiograph machines. Class III includes "high risk" devices, such as heart valves, pacemakers, and defibrillators.

⁷H.R. Rep. No. 107-728, at 32-36 (2002).

foreign countries meet multiple inspection requirements with fewer inspections.⁸

Specifically, MDUFMA, as amended by the Medical Devices Technical Corrections Act,⁹ required FDA to accredit persons—which are organizations—to conduct inspections of certain establishments. In response, FDA implemented an accredited persons inspection program, which provides an alternative to a traditional FDA-conducted postmarket inspection for eligible manufacturers of medical devices who apply to participate and are willing to pay an accredited organization to conduct the inspection.¹⁰ (FDA conducts inspections at no cost to the manufacturer.) Under this program, organizations accredited by FDA may inspect establishments and submit reports to FDA, which makes the final determination of compliance with applicable laws and regulations. MDUFMA specified eligibility criteria for manufacturers to participate in the program, including that the manufacturer markets, or intends to market, a medical device in a foreign country, and that the establishment did not receive warnings for significant deviations from compliance requirements based on its last inspection.¹¹ MDUFMA also established minimum requirements for organizations to be accredited to conduct inspections through this program, including protecting against financial conflicts of interest and ensuring the competence of the organization to conduct inspections. MDUFMA required FDA to issue criteria for accreditation within 180 days of its enactment, and limited the number of organizations that FDA could accredit during the first year after issuance of criteria for accreditation to 15.¹²

⁸See Pub. L. No. 107-250, § 201, 116 Stat. 1588, 1602-1609 (codified, as amended, at 21 U.S.C. § 374(g)).

⁹Pub. L. No. 108-214, § 2(b)(1), 118 Stat. 572-575.

¹⁰FDA conducts both premarket and postmarket inspections of establishments. Premarket inspections are conducted prior to the initial introduction of devices into the U.S. market. Postmarket inspections occur after a device has already been marketed.

¹¹FDA officials told us that they can not tell how many manufacturers meet the criteria for participation in the accredited persons inspection program because it does not routinely collect information about whether manufacturers market, or intend to market, medical devices in foreign countries.

¹²FDA issued criteria for accreditation on April 28, 2003. 68 Fed. Reg. 22400. MDUFMA did not limit the number of organizations that FDA could accredit after the 1st accreditation year.

MDUFMA requires us to report on several aspects of FDA's accredited persons inspection program.¹³ This report provides information on the status of the program, specifically, (1) the number of organizations that sought accreditation, the number that were accredited, and reasons for denial of accreditation and (2) the number of inspections conducted by accredited organizations. This report also provides information about factors that could influence manufacturers' interest in voluntarily participating in FDA's accredited persons inspection program. In addition, MDUFMA also requires us to report on the number of inspections conducted by FDA; this information is included in appendix I. MDUFMA also requires us to report on other aspects related to the oversight and effectiveness of the accredited persons inspection program, but data were too limited for us to provide meaningful information on these aspects of the program at this time.

To conduct our review, we examined FDA documentation of the number of applications for accreditation it received and its evaluation of those applications, and we interviewed FDA officials. We also asked FDA to provide the number of inspections conducted from March 11, 2004—the date when FDA first cleared an accredited organization to conduct independent inspections—through October 31, 2006. We determined that the data FDA provided were sufficiently reliable for the purposes of this report. To gain perspective on manufacturers' interest in participating in the accredited persons inspection program, we interviewed representatives of FDA and affected entities—four accredited organizations, three organizations that represent manufacturers, and six manufacturers. The information we obtained from this nonscientific sample of representatives of affected entities can not be generalized to other accredited organizations or manufacturers. We conducted our work from February 2006 through November 2006 in accordance with generally accepted government auditing standards. See appendix II for a more detailed discussion of our methodology.

Results in Brief

FDA granted accreditation to 17 of 23 organizations that applied to conduct inspections of establishments. FDA denied accreditation to applicants that did not meet minimum criteria because their applications were not correctly completed or did not demonstrate the applicants' technical competence. During the first accreditation year—which started

¹³21 U.S.C. § 374(g)(12).

in April 2003—FDA received 23 applications. Of the 23 applications, 2 were not correctly completed and 2 did not demonstrate that the applicants had adequate technical competence. Although the remaining 19 applicants met the minimum criteria, MDUFMA limited the number of organizations that could be accredited to 15 during the first year after FDA issued criteria for accreditation. FDA scored the 19 applications against these criteria and rank-ordered them. It accredited the 15 organizations with the highest ranking applications, but 1 organization later withdrew. After the initial accreditation year, FDA received 2 additional applications for accreditation and it accredited both organizations. These 16 organizations remained accredited as of October 31, 2006.

Between March 11, 2004, and October 31, 2006, two accredited organizations conducted independent inspections—one inspection of a domestic establishment and one inspection of a foreign establishment. During this same time period, 36 inspections of domestic establishments and 1 inspection of a foreign establishment were conducted by accredited organizations jointly with FDA officials as part of the training FDA requires of accredited organizations. As of October 31, 2006, individuals from 7 of the 16 accredited organizations had completed all training requirements and were cleared to conduct independent inspections. The remaining 9 accredited organizations had not completed all training requirements by that date.

Several factors may influence manufacturers' interest in voluntarily participating in the accredited persons inspection program, either by requesting an inspection or by hosting a training inspection. According to FDA and representatives of affected entities, factors that might influence manufacturers' decisions to request an inspection by an accredited organization include (a) potential incentives, (b) potential disincentives, and (c) reasons for deferring participation in the inspection program. Potential incentives include the opportunity to reduce the number of inspections conducted to meet FDA and other countries' requirements and to control the scheduling of the inspection by an accredited organization. For example, the one inspection of a domestic establishment that an accredited organization completed independently before October 31, 2006, was a single inspection designed to meet the requirements of FDA, the European Union, and Canada. Potential disincentives to participation include bearing the cost for the inspection and uncertainty about the potential consequences of making a commitment to having an inspection to assess compliance with FDA requirements in the near future. Some manufacturers might be deferring participation in the program. For example, manufacturers that already contract with a specific accredited

organization to conduct inspections to meet the requirements of other countries might defer participation until FDA has cleared that organization to conduct independent inspections. Manufacturers may also participate in the accredited persons inspection program by hosting training inspections, and their interest in doing so might be influenced by other factors. For example, some representatives of affected entities speculated that some manufacturers may choose not to host training inspections because of a concern that they might require more time and effort for manufacturers' staff (and thus be more disruptive) than inspections conducted by fully trained personnel.

The Department of Health and Human Services provided technical comments on a draft of this report, which we incorporated as appropriate.

Background

FDA conducts quality system inspections of medical device manufacturers' establishments to assess compliance with applicable FDA regulations, including the quality system regulation to ensure good manufacturing practices¹⁴ and the regulation requiring reporting of adverse events. FDA's routine postmarket quality system inspections include both comprehensive and abbreviated inspections, which differ in the scope of inspectional activity. A comprehensive postmarket inspection of an establishment assesses multiple aspects of the manufacturer's quality system, including management activities to establish, implement, and review the quality system; procedures to control the design and the production or processing of the device to ensure that it conforms to specifications and user requirements; and procedures for preventing, identifying, and correcting quality problems. Based upon its findings during inspection, FDA classifies completed inspections into one of three categories based on the extent to which the establishment deviates from applicable requirements of the quality system regulation: No action indicated (which indicates no deviations or only minor deviations), voluntary action indicated (which indicates minor to significant deviations), or official action indicated (which indicates significant deviations and warnings).

MDUFMA required FDA to accredit third persons—which are organizations—to conduct inspections of certain establishments.

¹⁴See 21 C.F.R. pt. 820 (2006).

Manufacturers that meet eligibility requirements may request a postmarket inspection by an FDA-accredited organization.¹⁵

To be eligible to request an inspection of an establishment by an accredited organization, a manufacturer must

- manufacture a class II or class III medical device;
- market at least one of those devices in the United States;
- market or intend to market at least one of those devices in a foreign country and either (a) one of those countries certifies, accredits, or otherwise recognizes the FDA-accredited organization as authorized to conduct inspections of establishments or (b) the manufacturer submits a statement to FDA that the law of one of the countries recognizes an inspection by FDA or the FDA-accredited organization;¹⁶
- have received, after its most recent inspection, a classification by FDA as “no action indicated” or “voluntary action indicated” for the establishment that it seeks to have inspected by an accredited organization;¹⁷ and
- request and receive FDA’s approval to use a specific accredited organization.

In addition, to be eligible to request an inspection by an accredited organization, domestic establishments may not have been inspected by the accredited organization during the previous four years, unless the

¹⁵ Accredited organizations may conduct comprehensive postmarket quality system inspections, but not other types of inspections of establishments that FDA has the authority to conduct, such as premarket or for-cause inspections (that is, inspections conducted in response to specific information that raised questions, concerns, or problems such as a potential serious health risk). FDA may conduct its own inspections of establishments even after inspection by an accredited organization.

¹⁶ FDA officials told us that they are not aware of any country where the law recognizes an inspection by FDA, and that only organizations that are certified, accredited, or otherwise recognized by one or more foreign countries to conduct inspections of establishments can conduct inspections through FDA’s accredited persons inspection program.

¹⁷ If a manufacturer’s most recent inspection was conducted by an accredited organization and FDA classified it as official action indicated, but the manufacturer meets all other eligibility criteria for the accredited persons inspection program, the manufacturer may petition FDA for an exception. The petition should explain how the manufacturer corrected the identified problems.

manufacturer requests and receives a waiver from FDA, and foreign establishments must be periodically inspected by FDA.¹⁸

Organizations seeking accreditation to conduct inspections through the accredited persons inspection program submit applications to FDA for review. FDA established criteria for accreditation that incorporate the minimum requirements set out in MDUFMA, including the independence and competence of the accredited organizations. For example, to ensure the independence of organizations accredited to conduct inspections of medical device establishments, MDUFMA prohibits accredited organizations from engaging in the design, manufacture, promotion, or sale of articles regulated by FDA, and FDA's criteria include whether the organization has procedures in place to prevent conflicts of interest. To ensure that accredited organizations are competent to conduct inspections, MDUFMA requires that accredited organizations agree to limit their work to that for which they have sufficient competence and capacity, and FDA's criteria include whether the organizations' personnel have knowledge of pertinent FDA laws, regulations, and inspection procedures.

¹⁸As enacted, MDUFMA prohibited an inspection of an establishment by an accredited organization if its two immediately preceding inspections had been conducted by an accredited organization, unless the manufacturer requested and received approval from FDA. Because accredited organizations often completed inspections in two or more visits, this provision, in effect, limited manufacturers to no more than one completed inspection of an establishment by an accredited organization. In part, in an attempt to correct this limitation, Congress passed the Medical Devices Technical Corrections Act, Pub. L. No. 108-214, § 2(b)(1), 118 Stat. 572, 573-574, which included a provision excluding establishments inspected by accredited organizations during the previous four years. According to a report of the U.S. House Committee on Energy and Commerce accompanying the act, this provision was intended to ensure "that [establishments] can work with [accredited organizations] to allow them to complete a full [quality system] inspection over the course of a two year period . . . [and] can use [accredited organizations] for two consecutive [quality system] inspections before requesting special permission from [FDA] for the third such inspection." H.R. Rep. No 108-433, at 8 (2004). FDA guidance, which reflects the objectives stated in the committee report, states: "The change limits the use of [inspections by accredited organizations] to a four-year period rather than a limit of two consecutive inspections. This reflects [the Medical Devices Technical Corrections Act's] shift to permit an inspection by an accredited [organization] to be completed in stages during a two-year period. Because a complete [inspection by an accredited organization] must be completed within two years, FDA expects two complete [inspections by accredited organizations] during the four-year period provided by this section." However, instead of expanding the use of accredited organizations, this provision would appear to disqualify a manufacturer for four years after any one inspection by an accredited organization, contrary to the committee report and FDA guidance. An FDA official acknowledged the problem and stated that it is considering a proposal for an additional technical correction to address it. No establishment has been found ineligible for an inspection by an accredited organization on the basis of this criterion.

FDA developed a scoring procedure to evaluate applications from organizations in light of these and other criteria.

FDA also developed a training program for inspectors from accredited organizations that involves both formal classroom training and training inspections of establishments. The formal classroom training includes instruction on FDA's regulations pertaining to medical devices and FDA's techniques for conducting quality system inspections. FDA also requires inspectors to successfully complete three joint inspections with FDA before being cleared to conduct independent inspections. FDA relies on manufacturers to volunteer to host these joint inspections. During the first training inspection, an FDA inspector leads the inspection and the accredited organization's inspector acts primarily as an observer. During the second training inspection, the accredited organization's inspector conducts an inspection while being observed and evaluated by an FDA inspector who may provide assistance to the trainee. During the third training inspection, the accredited organization's inspector conducts an inspection while being observed and evaluated by an FDA inspector who may not provide assistance to the trainee. Each individual inspector from an accredited organization must complete all training requirements successfully before being cleared to conduct independent inspections.

Manufacturers that want to have an inspection through the accredited persons inspection program submit a request to FDA that identifies the accredited organization they intend to use and asks for FDA's approval. Manufacturers include with that request documentation showing that they meet the eligibility criteria. FDA can then provide clearance and approve the request, ask for additional information, or deny the request. If the request is approved, the manufacturer enters an agreement with the approved accredited organization and schedules an inspection. Once the accredited organization completes its inspection, it prepares a report and submits it to FDA. FDA makes the final assessment of compliance with applicable requirements.

FDA Accredited 17 of 23 Organizations and Denied Accreditation When Criteria Were Not Met or Because MDUFMA Limited the Number That Could Be Accredited

FDA granted accreditation to 17 of 23 organizations. FDA denied accreditation to applicants that did not meet minimum criteria because their applications were not correctly completed or did not demonstrate technical competence. In addition, some applicants were denied accreditation because MDUFMA limited the number of organizations that could be accredited to 15 during the first year after FDA issued criteria for accreditation.

FDA granted accreditation to 17 of 23 organizations that applied to conduct inspections of establishments through the accredited persons inspection program. One or more foreign governments had already authorized each of these accredited organizations to conduct inspections to assess compliance with quality system requirements. FDA announced accreditation of 15 of 22 applicant organizations on November 6, 2003. One of these accredited organizations withdrew from the program in December 2003, leaving 14 accredited organizations. After the initial accreditation year, FDA received two additional applications for accreditation, including one from an organization that had been denied accreditation during the first year; FDA accredited both of these organizations. The total number of accredited organizations as of October 31, 2006, was thus 16.

FDA denied accreditation to applicants that did not meet minimum criteria because their applications were not correctly completed or did not demonstrate the applicants' technical competence and because more organizations met the minimum criteria for accreditation than FDA could legally accredit. During the first accreditation year, FDA received a total of 23 applications from 22 organizations. Of these 23 applications, 2 were not correctly completed and the applicants were denied accreditation. For example, these applications did not include required documentation showing the authority, responsibility, and reporting structure of the individuals who would perform work through the accredited persons inspection program. One of the organizations that had initially submitted an application that was not correctly completed submitted a second, correctly completed application within the first accreditation year. (This second application is included among the total of 23 applications FDA received during the first accreditation year.) Thus, FDA received 21 correctly completed applications from 21 organizations during the first accreditation year.

FDA also denied accreditation to applicants that did not meet minimum criteria because their applications did not demonstrate that the applicants had adequate technical competence. To evaluate organizations' qualifications, FDA developed a checklist for scoring applications against

the criteria for accreditation. A group of FDA staff assessed the applications and assigned scores to specific elements, such as technical competence and prevention of conflict of interest. FDA determined that 2 of the 21 correctly completed applications did not demonstrate that the organization had adequate technical competence, and it denied accreditation to these 2 organizations.

FDA found that the remaining 19 organizations that applied for accreditation during the first accreditation year met the minimum criteria for accreditation, but it was limited to accrediting 15 organizations during that year. FDA rank-ordered the applications by the total score it assigned through use of the checklist. FDA granted accreditation to the 15 organizations with the highest ranking applications, and denied accreditation to the remaining 4 organizations with lower-ranking applications.

Two Inspections Independently Conducted by an Accredited Organization

Between March 11, 2004—the date when FDA first cleared an accredited organization to conduct independent inspections of establishments—and October 31, 2006, two accredited organizations conducted independent inspections—one inspection of a domestic establishment and one inspection of a foreign establishment. During the same time period, 36 inspections of domestic establishments and 1 inspection of a foreign establishment were conducted by accredited organizations jointly with FDA officials as part of the training FDA required of accredited organizations. As shown in table 1, individuals from 7 of 16 accredited organizations completed all training requirements and were cleared to conduct independent inspections by October 17, 2006. The remaining 9 accredited organizations had not completed all training requirements as of October 31, 2006.

Table 1: Dates on Which FDA Cleared Accredited Organizations to Conduct Independent Inspections

Accredited organization	Date
# 1	March 11, 2004
# 2	May 17, 2004
# 3	June 1, 2004
# 4	July 28, 2004
# 5	April 27, 2005
# 6	September 26, 2006
# 7	October 17, 2006
# 8 through # 16	Pending completion of training requirements as of October 31, 2006

Source: FDA.

To gain perspective on the number of inspections conducted by accredited organizations, we asked FDA how many inspections it had conducted from March 11, 2004, through October 31, 2006, that could potentially have been conducted by accredited organizations. FDA could not provide exact counts of these inspections for two reasons. First, only those manufacturers that market, or intend to market, a device in a foreign country are eligible to be inspected by an accredited organization, but FDA does not routinely obtain information about foreign marketing activities or plans. Second, eligibility for an inspection by an accredited organization is limited to manufacturers of class II or III medical devices, but FDA does not have readily available information about the classification of devices that were manufactured at establishments at the time of inspection.¹⁹ Instead of providing exact counts of the number of inspections FDA had conducted that could potentially have been conducted by accredited organizations, FDA told us how many comprehensive postmarket quality system inspections it had conducted of establishments where class II or III medical devices were manufactured as

¹⁹When a manufacturer changes its device inventory or when FDA reclassifies a device, FDA replaces the existing information about device classification in its inspection database with the new information. For example, if a class II medical device was manufactured at an establishment at the time when it was inspected, and the manufacturer subsequently stopped manufacturing that device and now manufactures only class I medical devices, then FDA's database would not indicate that class II devices had been manufactured at the establishment at the time of inspection. An FDA official told us that the classification of medical devices handled by specific establishments is generally relatively stable over time periods of approximately 2 years.

of October 31, 2006, and that met the criteria for an inspection by an accredited organization other than the criterion that the manufacturer markets, or intends to market, a medical device in a foreign country. These counts provide an upper bound estimate of the number of inspections FDA had conducted that could potentially have been conducted by accredited organizations. From March 11, 2004, through October 31, 2006, FDA conducted 229 inspections of domestic establishments and 48 inspections of foreign establishments.²⁰

Several Factors Could Influence Manufacturers' Interest in Participating in the Program

According to FDA and representatives of affected entities, several factors could influence manufacturers' interest in voluntarily participating in the accredited persons inspection program, whether by requesting an inspection or by hosting a training inspection. FDA and representatives of affected entities described factors that could serve as potential incentives, disincentives, or reasons to defer making a request for an inspection by an accredited organization. Additional factors may influence manufacturers' interest in participating in the program by hosting required training inspections.

Potential incentives to having an inspection by an accredited organization include the opportunity to reduce the number of inspections conducted to meet FDA and other countries' requirements and to control the scheduling of the inspection by an accredited organization.

- FDA and representatives of affected entities told us that manufacturers would prefer to reduce the number of inspections they need to undergo by having a single inspection cover requirements of FDA and other governments, rather than having separate inspections.²¹ One reason for this preference is that inspections are disruptive to manufacturers. FDA and representatives of affected entities told us that FDA's requirements

²⁰See app. I for information on the number of postmarket quality system inspections of domestic establishments where class II or class III medical devices are manufactured and the number of inspections of foreign establishments where medical devices are manufactured that FDA conducted.

²¹We use the term "single inspection" to mean a complete inspection that covers all requirements of two or more countries, without repeating those activities covered under more than one set of requirements. A complete inspection can be conducted during a single block of time or in multiple phases. Two or more separate inspection reports could be generated on the basis of that single inspection.

are similar, but not identical, to the requirements of other countries.²² As a result, a single inspection designed to cover multiple requirements would likely take more time than a single inspection designed to meet any one set of requirements, but less time than separate inspections. Representatives of the accredited organizations with whom we spoke stated that they expect to be able to address multiple inspection requirements in a single inspection, and the one inspection of a domestic establishment that an accredited organization completed independently before October 31, 2006, was a single inspection designed to meet the requirements of FDA, the European Union, and Canada.

- According to FDA and many representatives of affected entities, another potential incentive to requesting an inspection by an accredited organization is that manufacturers can work with accredited organizations to schedule inspections and can schedule them months in advance. In contrast, FDA generally notifies manufacturers of inspections about a week in advance. The reasons representatives of affected entities gave for the preference for scheduling inspections well in advance include that it enables them to ensure the availability of their quality managers and minimize disruption to their normal work activities.

FDA and representatives of affected entities told us that the potential disincentives to having an inspection by an accredited organization include bearing the cost for the inspection, doubts about whether accredited organizations can cover multiple requirements in a single inspection, and uncertainty about the potential consequences of making a commitment to having an inspection to assess compliance with FDA requirements in the near future.

²²The United States and other countries are working to bring their requirements for inspections of medical device establishments into line with one another, that is, to harmonize their requirements. The majority of representatives of affected entities with whom we spoke supported harmonization.

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- Manufacturers pay for inspections that are conducted by accredited organizations; in contrast, manufacturers are not charged for inspections conducted by FDA.²³ Manufacturers that already pay for inspections to meet requirements of foreign countries will likely face a higher cost for an inspection that also covers FDA requirements because the requirements are not identical and the inspection will therefore likely take longer. FDA and representatives of affected entities stated that bearing the cost for the inspection might be a disincentive to participation in the program, and some of these representatives suggested that cost could be particularly important to small manufacturers.
 - Although a goal of the accredited persons inspection program is to reduce the total number of inspections for manufacturers that market devices in the United States and other countries, some representatives of FDA and manufacturers raised doubts about whether the accredited organizations could cover multiple requirements in a single inspection. One of them told us that the accredited organization that inspects its establishments stated that it would not combine the inspection to assess compliance with FDA requirements with an inspection to address other requirements, and would instead conduct two separate inspections. Similarly, some FDA officials expressed uncertainty about whether all of the accredited organizations would develop inspection strategies that effectively address multiple requirements. FDA and Canada are in the process of establishing a pilot program to assess whether accredited organizations can meet the requirements of both countries in a single inspection.
 - In addition, uncertainty about the potential consequences of making a commitment to having an inspection to assess compliance with FDA requirements in the near future is a potential disincentive. Manufacturers who request an inspection by an accredited organization are committing to an inspection to assess compliance with FDA requirements in the near future, even though it is possible that FDA would not inspect them in the next 5 or 6 years—and inspections carry the risk of regulatory action. FDA and most of the representatives of affected entities with whom we spoke told us that this commitment to an inspection is a potential disincentive to

²³Representatives of the accredited organizations with whom we spoke indicated that the cost to manufacturers would vary depending on such factors as the size of the manufacturer and how much extra time would be required to assess compliance with FDA requirements. Representatives suggested that covering FDA's requirements could take 2 or more days in addition to the time spent assessing other countries' requirements, plus time for advance preparation and writing the inspection report. They speculated that they would probably charge manufacturers from \$1,700 to \$2,500 per day, plus the cost of travel and living expenses.

participation in the program. For example, one industry representative questioned why manufacturers would ask for—and pay for—inspections when the result could be that FDA closes them down. In addition, because FDA will make the final determination of compliance with its requirements, some representatives of affected entities suggested that manufacturers might be uncertain about whether the accredited organization’s inspection will satisfy FDA, or whether FDA will conduct an additional inspection after reading the report prepared by the accredited organization.

Some representatives of affected entities suggested that manufacturers might defer a decision about whether to request an inspection by an accredited organization until uncertainties about the potential incentives and disincentives have been reduced. For example, manufacturers might defer a decision until there is greater certainty about whether accredited organizations are able to conduct single inspections to cover multiple sets of requirements and about how FDA will respond to the inspection reports prepared by accredited organizations.

According to representatives of affected entities, some manufacturers—those that are already paying to have routine quality system inspections of their establishments to meet the requirements of other countries—might have other reasons for deferring a request for an inspection by an accredited organization. Manufacturers that already contract with a specific accredited organization to conduct inspections to meet the requirements of other countries might defer participation until that organization has completed all required training and been cleared by FDA to conduct independent inspections. In addition, because manufacturers want to minimize the disruptiveness of inspections, they might defer requesting an inspection through FDA’s accredited persons inspection program until accredited organizations have honed their procedures for conducting inspections to cover FDA’s requirements.


Manufacturers’ participation in the accredited persons inspection program also includes their willingness to host training inspections. In addition to some of the potential incentives and disincentives to requesting an inspection by an accredited organization, other factors may have influenced manufacturers’ interest in hosting required training inspections. Fewer manufacturers have volunteered to host training inspections than needed for all of the accredited organizations to complete their training. Some representatives of affected entities speculated that manufacturers might have believed that training inspections would require more time and effort for their staff (and would thus be more disruptive) than inspections

conducted by fully trained personnel, or that manufacturers might have believed that training inspections would be more rigorous than nontraining inspections if the trainees and FDA personnel were to take particular care to demonstrate their thoroughness to each other. Moreover, FDA and representatives of affected entities indicated that scheduling training inspections was difficult. For example, FDA schedules inspections a relatively short period of time prior to the actual inspection, and some accredited organizations were not available to participate because they had already made prior commitments.

Agency Comments

We provided a draft of this report to the Department of Health and Human Services for comment. The department stated that our report provides an accurate and balanced explanation of the accredited persons inspection program and provided technical comments, which we incorporated as appropriate.

We are sending copies of this report to the Secretary of Health and Human Services and the Commissioner of FDA, appropriate congressional committees, and other interested parties. We will also make copies available to others on request. In addition, the report is available at no charge on the GAO Web site at <http://www.gao.gov>. If you or your staffs have questions about this report, please contact me at (202) 512-7119 or crossem@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made major contributions to this report are listed in appendix III.



Marcia Crosse
Director, Health Care

Appendix I: Inspections Conducted by the Food and Drug Administration

The Medical Device User Fee and Modernization Act of 2002 (MDUFMA) requires us to report on the number of inspections of medical device establishments conducted by the Food and Drug Administration (FDA).¹ We are reporting the number of postmarket quality system inspections of domestic establishments where medium or high risk medical devices (referred to as class II or class III medical devices) are manufactured² and the number of inspections of foreign medical device establishments conducted by FDA.

To provide this information, we asked FDA how many inspections it conducted from March 11, 2004—the date when FDA first cleared an accredited organization to conduct independent inspections—through October 31, 2006. With regard to domestic establishments, we asked for the number of quality system inspections of establishments where class II or class III medical devices are manufactured. FDA provided us with the number of such inspections based on the classification of medical devices as of October 31, 2006, because FDA does not have readily available information about the classification of devices manufactured at the establishments at the time of inspection. FDA updates the information about device classification in its inspection database when the types of medical devices an establishment handles changes, for example, when a manufacturer changes its device inventory or when FDA reclassifies a device.³ Based on our review of FDA documents and discussions with FDA officials, we determined that the data FDA provided were sufficiently reliable for the purposes of this report.

FDA reported that from March 11, 2004, through October 31, 2006, it conducted 2,814 postmarket quality system inspections of domestic establishments where a class II or III medical device was manufactured as of October 31, 2006. These establishments included medical device manufacturers and remanufacturers, packers and repackers, labelers and relabelers, contract sterilizers, software manufacturers, and reproprocessors. During this time period, another 86 domestic inspections were conducted by state investigators under contract to FDA. FDA also reported that it

¹21 U.S.C. § 374(g)(12)(A).

²We use the term “manufacture” to refer to activities including manufacturing, preparing, and processing devices.

³An FDA official told us that the classification of medical devices handled by specific establishments is generally relatively stable over time periods of approximately 2 years.

**Appendix I: Inspections Conducted by the
Food and Drug Administration**

conducted 656 inspections of foreign medical device establishments from March 11, 2004, through October 31, 2006.⁴

⁴During this time period, FDA also conducted 36 inspections of domestic establishments and 1 inspection of a foreign establishment jointly with accredited organizations as part of the training FDA required of these organizations.

Appendix II: Scope and Methodology

To determine the number of organizations that sought accreditation, the number that were accredited, and reasons for denial of accreditation, we reviewed FDA documentation of the number of applications for accreditation it received and its evaluation of those applications, and we interviewed FDA officials.

To determine the number of inspections of foreign and domestic establishments conducted by accredited persons, we asked FDA to provide counts of the number of inspections conducted from March 11, 2004—the date when FDA first cleared an accredited organization to conduct independent inspections—through October 31, 2006. Based on our review of FDA documents and discussions with FDA officials, we determined that the data were sufficiently reliable for our purposes.

To determine whether there are factors that could influence manufacturers' interest in voluntarily participating in FDA's accredited persons inspection program, we interviewed FDA officials and representatives of affected entities. As indicated in table 2, the affected entities with which we conducted interviews were four accredited organizations, three organizations that represent medical device manufacturers, and six global medical device manufacturers. For our sample of accredited organizations, we selected two that had been cleared by FDA to conduct independent inspections as of April 2006 and two that had not. To select our sample of manufacturers, we asked the representatives of each of the three organizations that represent manufacturers to provide us with a list of five manufacturers. Two of the organizations provided lists of five manufactures and one organization provided a list of four manufacturers. We randomly selected two global manufacturers from each list. The information we obtained from these representatives of affected entities can not be generalized to other manufacturers or accredited organizations.

Table 2: Affected Entities with Which We Conducted Interviews

Type of affected entity	Specific entity
Organizations that FDA accredited to conduct inspections	<ul style="list-style-type: none"> • Danish Standards • KEMA Quality B.V. • TUV Rheinland of North America, Inc. • Underwriters Laboratories, Inc.
Organizations that represent medical device manufacturers	<ul style="list-style-type: none"> • Advanced Medical Technology Association (AdvaMed) • Medical Device Manufacturers Association (MDMA) • National Electrical Manufacturers Association (NEMA)
Global manufacturers of medical devices	<ul style="list-style-type: none"> • Abbott Laboratories • Acorn Cardiovascular, Inc. • Gen-Probe, Inc. • Philips Medical Systems • Siemens Medical Solutions • Wescor, Inc.

Source: GAO.

We also reviewed applicable law, regulations, legislative history, FDA guidance, and other relevant documents. We conducted our work from February 2006 through November 2006 in accordance with generally accepted government auditing standards.

Appendix III: GAO Contact and Staff Acknowledgments

GAO Contact

Marcia Crosse, (202) 512-7119 or crossem@gao.gov

Acknowledgments

In addition to the contact named above, James McClyde, Assistant Director; Kristen Joan Anderson; Cathleen J. Hamann; and Julian Klazkin made key contributions to this report.

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