

Department of Health and Human Services

**OFFICE OF
INSPECTOR GENERAL**

**THE NATIONAL INSTITUTES OF HEALTH
SHOULD IMPROVE ITS STEWARDSHIP
AND ACCOUNTABILITY OVER HARDWARE
AND SOFTWARE ASSETS**

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Office of Inspector General

<https://oig.hhs.gov>

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Report in Brief

Date: September 2020
Report No. A-18-19-06004

U.S. DEPARTMENT OF HEALTH & HUMAN SERVICES
OFFICE OF INSPECTOR GENERAL



Why OIG Did This Audit

OIG identified monitoring and reporting on the integrity of HHS programs, including responsible stewardship of HHS programs and protection of resources, as a top management and performance challenge for HHS. NIH operations are responsible for the prudent management and careful stewardship of approximately \$1.8 billion in accountable personal property. The Department of Defense and Labor, Health and Human Services, and Education Appropriations Act, 2019 and the Continuing Appropriations Act, 2019, P.L. No. 115-245, provided HHS OIG with \$5 million from the NIH appropriation for oversight of grant programs and operations of NIH.

Our objective was to determine whether NIH had controls in place to effectively and efficiently track and monitor information technology (IT) resources and internet protocol (IP) addresses.

How OIG Did This Audit

We focused on NIH's governance, processes, and controls to track and monitor IT hardware, software, and IP addresses. We reviewed the implementation of policies, procedures, practices, metrics, and the completeness of property records; interviewed NIH personnel; and observed the implementation of tracking and monitoring tools. We considered NIH's Extramural Research Program as out of scope because the program did not involve Federal facilities and labs.

The National Institutes of Health Should Improve Its Stewardship and Accountability Over Hardware and Software Assets

What OIG Found

NIH had controls in place to effectively and efficiently track and monitor IT resources. However, NIH did not perform internal control activities in accordance with Federal directives and maintain a continual agencywide software license inventory. Specifically, Institutes and Centers (ICs) did not complete reports and perform investigations and reviews for lost, damaged, or destroyed property; identify accountable property and sensitive items as Government property; complete corrective action for property accountability and management control deficiencies; and meet minimum Department standards for its accountable personal property management program. Additionally, NIH did not maintain a continual agencywide inventory of all software licenses.

There was inadequate oversight to hold the ICs' management accountable for the performance of internal control activities. Additionally, there was no primary software asset management tool employed across all the ICs' operating environments to centralize and automate the capture of software inventory and entitlement data. These factors contributed to the deficiencies in NIH's stewardships of its IT resources. As a result, NIH was more susceptible to ineffective accountable property and control operations, which increased the risk that NIH would be unable to report reliable asset balances, to discover cost-saving opportunities, and to effectively safeguard assets from theft and other losses.

What OIG Recommends and NIH Comments

Our recommendations to NIH relate to enhancing stewardship activities associated with the management of Government personal property and software management practices. We recommend that NIH establish an oversight body that ensures that property accountability management responsibilities and control activities for Government property are performed. Additionally, we recommend that NIH employ a primary software asset management tool that centralizes and automates the capture of software inventory and entitlement data into each of the IC's operating environments. We also made procedural and operational recommendations.

In written comments on our draft report, NIH concurred with all our findings and recommendations and described actions it has taken or plans to take to address the findings.

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INTRODUCTION

WHY WE DID THIS AUDIT

The Office of Inspector General (OIG) identified monitoring and reporting on the integrity of the U.S. Department of Health and Human Services (HHS) programs, including responsible stewardship of HHS programs and protection of resources, as a top management and performance challenge for HHS.

The Department of Defense and Labor, Health and Human Services, and Education Appropriations Act, 2019 and the Continuing Appropriations Act, 2019, P.L. No. 115-245 (enacted September 28, 2018), provided HHS OIG with \$5 million from the National Institutes of Health (NIH) appropriation for oversight of grant programs and operations of NIH. NIH operations are responsible for the prudent management and careful stewardship of approximately \$1.8 billion¹ in accountable personal property.² We focused our audit of NIH operations on this stewardship, specifically information technology (IT) inventory management, because accurate inventory helps identify gaps, forms the foundation for effective incident response, plays a key role in cybersecurity (patch management), and can assist in fostering economies of scale and cost savings.

OBJECTIVE

Our objective was to determine whether NIH had controls in place to effectively and efficiently track and monitor³ IT resources and internet protocol (IP) addresses.

¹ On October 9, 2019, NIH reported that it had 253,354 accountable property assets approximately worth \$1,812,062,777.

² The HHS *Logistics Management Manual* (LMM) defines accountable personal property as property that meets HHS's criteria for control and recording and has an acquisition value of \$5,000 or more, or property identified as a sensitive item. Some examples of accountable personal property include, but are not limited to, laptops and notebooks, monitors, printers, computer CPUs and servers, network switches, and lasers. Some examples of property identified as sensitive include, but are not limited to, computers, liquid scintillation counters, power tools, televisions, and computer monitors. Accountable personal property is identified with an assigned HHS property barcode decal identification number.

³ The National Institute of Standards and Technology's Computer Security Resource Center defined "monitor" as continual checking, supervising, critically observing or determining the status in order to identify change from the performance level required or expected.

BACKGROUND

The National Institutes of Health

NIH is a collective assembly of 27 separate Institutes and Centers (ICs), each focused on an area of disease, research, and science to advance biomedical research and study, health, and science and discovery. NIH's mission is to seek fundamental knowledge about the nature and behavior of living systems and the application of that knowledge to enhance health, lengthen life, and reduce illness and disability. NIH's efforts in achieving its mission centers on two research initiatives—the Intramural⁴ and Extramural⁵ Research Programs. NIH is a federated environment where each IC is responsible for implementing into its environment the policy, planning, managing, and coordinating of programs and activities established by the NIH's Office of the Director.⁶

Protection of Information and Systems

The *Federal Information Security Modernization Act of 2014* (FISMA) and the Office of Management and Budget (OMB) Circular No. A-130, *Managing Information as a Strategic Resource*, mandate that Federal agencies develop and maintain a current inventory of all information systems. The *HHS System Inventory Management Standard* establishes a standardized inventory process to provide better visibility into information resources that require the documentation and identification of an IP address, among other identifiers, for tracking and reporting purposes.

The NIH Office of the Chief Information Officer, Center for Information Technology (CIT), and Information Security and Awareness Office work together with the ICs to maintain and implement the NIH information security program, including the protection of information and systems that support NIH's biomedical research, education, health care, and administrative operations.

The NIH Chief Information Officer oversees NIH IT governance, policies, assessments, and information security, and is responsible for advising the NIH Director and the ICs on the strategic direction and management of significant NIH information and IT programs.

⁴ The Intramural Research Program is an internal research initiative in which NIH and Federally employed scientists, postdoctoral fellows, and researchers conduct research in over 100 NIH facilities and laboratories.

⁵ The Extramural Research Program is an external research initiative in which NIH supports research and training of non-Federal scientists in universities, medical schools, hospitals, and institutions.

⁶ The Office of the Director is the central office at NIH and is responsible for setting policy for NIH and for planning, managing, and coordinating the programs and activities of all the ICs and NIH components.

CIT provides infrastructure, operations, and IT services and systems needed to support the ICs' performance of research and administration for more than 200 buildings and facilities in the Washington, DC, metropolitan area, Arizona, Montana, and North Carolina.

The Information Security and Awareness Office manages NIH's Information Security Program (Security Program) which protects the confidentiality, integrity, and availability of approximately 50,000 desktops and laptops, 15,000 servers, 11,000 mobile devices, and 2,600 public-facing applications and websites.

Responsibility Over Government Property Entrusted to NIH Possession and Control

The Federal Property and Administrative Services Act of 1949 (FPAS), as amended, Title 40, Public Buildings, Property and Works, section 524(a) (H40 U.S.C. § 524H(a)) states that "Each executive agency shall (1) maintain adequate inventory controls and accountability systems for property under its control, . . . (13) on a regular basis, conduct an inventory and assessment of accountable personal property under its control" Further, 31 U.S.C. section 902 requires that administrative controls be established to provide reasonable assurances that funds, property, and other assets are protected against waste, loss, unauthorized use, or misappropriation.

The NIH Office of Logistics and Acquisition Operations Property Management Branch (PMB) develops property policies, provides property management services, and oversees the management of personal property across NIH.⁷ However, each IC performs its own property records maintenance and is responsible for the tracking and accounting of all Government property through its property accountability program.

In addition, HHS has personnel dedicated to property management, as well as departmental policies and procedures to ensure proper safeguarding and maximum utilization.⁸

HOW WE CONDUCTED THIS AUDIT

We focused our audit on NIH's governance, processes, and controls to track and monitor IT hardware, software, and IP addresses. To accomplish our objective, we reviewed and verified the implementation of policies, procedures, practices, metrics, and property records; interviewed NIH management and personnel; and observed the implementation of reporting and tracking and monitoring tools. We considered NIH's Intramural Research Program as in scope but the Extramural Research Program as out of scope because the program did not involve Federally employed scientists or researchers or Federal facilities and labs.

⁷ PMB is a component of the Division of Logistics Services.

⁸ Personal property accountability activities include tasks such as affixing asset tags to personal property, conducting physical inventories, and reporting loss, theft, and damage of personal property.

We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives. We communicated to NIH our preliminary findings in advance of issuing our draft report.

Appendix A describes our audit scope and methodology; Appendix B contains Federal requirements and guidance.

FINDINGS

NIH had controls in place to effectively and efficiently track and monitor IT resources. However, NIH did not perform internal control activities in accordance with Federal directives and maintain a continual agencywide software license inventory. Specifically, the ICs did not complete reports and perform investigations and reviews for lost, damaged, or destroyed (LDD) property; identify accountable property and sensitive items as Government property; complete corrective action for property accountability and management control deficiencies; and meet minimum HHS standards for its accountable personal property management program. Additionally, NIH did not maintain a continual agencywide inventory of all software licenses.

There was inadequate oversight to hold the ICs' management accountable for the performance of internal control activities. Additionally, there was no primary software asset management tool employed across all the ICs' operating environments to centralize and automate the capture of software inventory and entitlement data. These factors contributed to the deficiencies in NIH's stewardships of its IT resources. As a result, NIH was more susceptible to ineffective accountable property and control operations, which increased the risk that NIH would be unable to report reliable asset balances, to discover cost-saving opportunities, and to effectively safeguard assets from theft and other losses.

NIH HAD CONTROLS IN PLACE TO EFFECTIVELY AND EFFICIENTLY TRACK AND MONITOR INFORMATION TECHNOLOGY RESOURCES

HHS established the LMM⁹ for HHS Operating Divisions, such as the NIH, to incorporate the management of property, programs, and activities, as mandated by the FPAS.

The NIH's personal property management policy also established procedures and internal control activities that mirror the HHS LMM. Consistent with Federal requirements, the NIH policy manual includes a personal property management policy that assigns roles, defines responsibilities, and establishes delegations of authority. The internal control activities

⁹ The HHS LMM provides the policy, procedures, and guidance to support the implementations and supplements of applicable existing laws, executive orders, mandatory regulations of control agencies, and HHS policies that pertain to the management of property, programs and activities.

pertaining to NIH's personal property management policy include a requirement for an annual physical inventory of accountable assets; reviews of procedural compliance with the management, programs, and activities of property; and investigations and reviews of incidents of loss of, damage to, or destruction of Government property. Also, consistent with Federal requirements, NIH utilized key control indicators and performance metrics to monitor and assess each IC's property management practices and compliance with policy and procedures as part of NIH's accountable personal property management program.¹⁰ Further, we determined that NIH had established policy, procedures, and guidance that ensured an IP address was included as a minimum inventory record requirement for information system inventories; adequately implemented policy and procedures for management of IP addresses; and sufficiently deployed and incorporated IP address management tools into its operational environment and practices.

Preceding the start of our audit, the NIH annual inventory was in progress. NIH had also already begun deployment of a property management portal designed to improve the accuracy of property management records and identification of discrepancies. On December 12, 2019, NIH reported that the Clinical Center, Center for Scientific Research, National Institutes of Arthritis and Musculoskeletal and Skin Diseases, and National Heart, Lung, and Blood Institute were not participating in or adopting the technology.

During our fieldwork, NIH had formally incorporated a new metric that monitored the completion rate of investigations and reviews of LDD property into its accountable personal property management program for fiscal year (FY) 2019. Also, NIH had started the remediation of property accountability and management control deficiencies identified in FYs 2017 and 2018 Federal Managers Financial Integrity Act audits. Lastly, NIH documented an approach for improved enterprise software asset management.

INSTITUTES AND CENTERS DID NOT PERFORM INTERNAL CONTROL ACTIVITIES IN ACCORDANCE WITH FEDERAL DIRECTIVES

Federal law, Office of Management and Budget (OMB) circulars and memoranda, and HHS and NIH policies direct the ICs to perform certain internal control activities. However, the ICs did not (1) complete reports and perform investigations and reviews of LDD property, (2) identify accountable property and sensitive items as Government property, (3) complete corrective action for property accountability control deficiencies, and (4) meet minimum Department standards for its accountable personal property management program.

¹⁰ The accountable personal property management program consisted of a Staff Assistance Visit (SAV). The SAV is a formal property accountability discussion between an NIH PMB Inventory Management specialist and the IC's Property Accountable and Custodial officers over IC's property management practices and compliance with policy and procedures.

Institutes and Centers Did Not Complete Reports and Perform Investigations and Reviews of Lost, Damaged, or Destroyed Property

The policies of HHS and NIH both require ICs to conduct a preliminary investigation for Government property detected or suspected as LDD, report the facts using a Report of Survey (ROS), and appoint individuals to review reports of LDD and make recommendations on liability. These reports, investigations, and reviews of LDD help to ensure accurate property and financial records, to determine financial liability or relief from accountability, and to identify trends such as theft and repeat losses from a location or losses indicative of systemic failures that warrant further analysis.

Our review determined that 4 ICs did not complete ROSs for 108 lost property items with a total value of approximately \$1.64 million.¹¹ As of the end of calendar year 2018, NIH had not completed 88 percent, or 7,082, required investigations and reviews of LDD Government property.¹² These property items included accountable personal property and sensitive items.¹³ In addition, ICs did not appoint a Board of Survey and Survey officers to investigate LDD Government property and to review and make recommendations, including relief from accountability, as is required by NIH policy.

As a result, ICs are more susceptible to ineffective property management, control, and accounting of property that could lead to the reporting of unreliable and inaccurate balances and values of assets and to theft or other loss. Inadequate oversight to enforce accountability of internal control activities and hold management accountable contributed to the deficiency.

NIH Did Not Identify Accountable Property and Sensitive Items as Government Property

Both HHS and NIH policies require that accountable property and sensitive items be identified with an asset tag.¹⁴ An asset tag, also referred to as a “decal” or “barcode label,” is the unique control number used to identify accountable property in a property record system. Marking

¹¹ OIG’s request and analysis of ROSs revealed that they were not completed for at least 34 items totaling \$452,307 at National Institute of Biomedical Imaging and Bioengineering; 28 items totaling \$432,033 at the National Institute of General Medical Sciences; 28 items totaling \$397,291 at the National Institute on Alcohol Abuse and Alcoholism; and 18 items totaling \$361,725 at the National Library of Medicine

¹² NIH PMB’s monitoring of NIH’s ROS completion rate identified backlogs and that NIH had completed ROSs for 16 percent of 9,095 and 12 percent of 8,048 Government property items in calendar years 2017 and 2018, respectively.

¹³ Property items included laptops (up to \$4,200), a laser (\$175,000), data storage memory unit (\$409,000), cytometer flow analyzer (\$103,000), medical equipment camera (\$5,800), computer server (\$308,600), and a switch network (\$15,600), among other accountable property items.

¹⁴ The *NIH Policy Manual* 26101-25-2 requires that a barcode decal be attached and the information entered into its personal property records and inventory management and control system within 5 working days of receiving the property item.

property with an asset tag not only serves as a physical identification of Government assets but also starts the property management process when the initial property and financial management information and record are created, the organizational area of responsibility within NIH is assigned, and is how accountable assets, including sensitive assets, are scanned for annual physical inventory.

We determined that accountable property, which included IT equipment and sensitive items at three ICs, identified missing asset tags on 959 property items totaling approximately \$2.1 million.¹⁵ In addition, the NIH inventory contractor's weekly inventory status reports between January 9 and June 7, 2019, indicated 5,279 instances of accountable property that either had not been identified with an asset tag or had not been entered into NIH's property management and record system for inventory management and control. Other than inventory contractors notifying NIH to remediate, NIH and its inventory capability was not able to produce information on the 5,279 instances that described the type of property, value, or status.

As a result, ICs increase the risk of ineffective inventory management and control that could result in undetected theft or other loss or the re-purchase of assets already on hand. Inadequate oversight to enforce accountability of internal control activities and hold management accountable contributed to the inadequacy.

NIH Did Not Complete Corrective Action for Property Accountability and Management Control Deficiencies

OMB Circular No. A-123 states that corrective action of identified control deficiencies must be considered a priority and requires prompt resolution.¹⁶ The Government Accountability Office's (GAO's) *Standards for Internal Control in the Federal Government* also states that identified internal control deficiencies be remediated on a timely basis and that corrective actions include the resolution of audit findings.

FYs 2017 and 2018 Federal Managers Financial Integrity Act audits' control deficiency records indicate that the NIH has started but not completed corrective action for 16 of 17 cataloged property accountability and management control deficiencies, of which some could lead to misstatement of asset balances. The inability to timely remediate these control deficiencies, which are related to the accountability and safeguarding of Federal assets, is an indicator of weakness in the NIH internal control environment. The remediation of control deficiencies is an integral part of management accountability and essential to safeguarding Federal assets.

¹⁵ The accountable property included 245 items totaling \$1,734,529 at the National Institute of Allergy and Infectious Disease; 199 items totaling \$398,086 at the National Human Genome Research Institute; and 515 items at the National Institute of Biomedical Imaging and Bioengineering.

¹⁶ OMB Circular No. A-123, *Management's Responsibility for Enterprise Risk Management and Internal Control* section V. Correcting Internal Control Deficiencies.

As a result, NIH is operating at an increased risk of ineffective property management that could lead to misstatement of asset values and balances and non-compliance with the FPAS.

Inadequate oversight to enforce accountability of internal control activities and hold management accountable contributed to the deficiency.

NIH Did Not Meet Minimum Department Standards for Its Accountable Personal Property Management Program

HHS policy¹⁷ requires NIH to evaluate its accountable personal property management program through implementation of performance measures: (1) inventory reconciliation rate¹⁸ and (2) LDD rate.¹⁹ The minimum Department standard rate is 98 percent for inventory reconciliation and 2 percent for LDD.

NIH failed to meet the two HHS performance standards. Additionally, the NIH PMB's documentation of the IC's individual inventory reconciliation performance,²⁰ as well as NIH's collective performance, revealed repeated failures dating back to 2012, when neither NIH nor the ICs achieved PMB's target rate of 2 percent. The inventory reconciliation and LDD rates are performance indicators of ineffective property management operations.²¹

As a result, IC's poor quality of asset management performance could lead to the inability to effectively prevent misuse, theft, and other losses and non-compliance with the FPAS. Inadequate oversight to enforce accountability of internal control activities and hold management accountable contributed to the deficiency.

¹⁷ The HHS LMM.

¹⁸ Inventory reconciliation rate is a percent of accountable assets reconciled at the conclusion of the annual inventory.

¹⁹ The LDD rate is the percent of assets that were lost, damaged, or destroyed during the previous FY.

²⁰ The NIH PMB established a Final Inventory Discrepancy Rate to oversee and measure the reconciliation of the individual institutes and centers. The rate measures the accuracy of the official system of record (NBS) as a result of the physical inventory discrepancies. The SAV internal control reports recorded and maintained the historical data.

²¹ A low reconciliation ratio, a high level of LDD property, or poor performance on both indicators signals the need for improvement of internal controls and management.

NIH DID NOT MAINTAIN A CONTINUAL AGENCYWIDE INVENTORY OF ALL SOFTWARE LICENSES

The OMB Memorandum M-16-12, *Category Management Policy 16-1: Improving the Acquisition and Management of Common Information Technology: Software Licensing* outlines actions that agencies must employ in their approach to improve software management practices.²²

NIH did not maintain a continual agencywide inventory of all software licenses. Each IC gathered, stored, and maintained its own separate inventory using its own tools, utilities, and methods. Maintaining a continual agencywide inventory enhances the ability to achieve clear, complete, consolidated visibility across the 27 operating environments as a single enterprise.

As a result, NIH limits its ability to effectively aggregate and analyze accurate inventory data, collectively as a single enterprise, to ensure compliance with software license agreements, to prevent the purchase of redundant applications, and to identify other cost-saving opportunities.

The lack of a primary software asset management tool that centralized and automated the capture of software inventory and entitlement data across all IC operating environments contributed to the deficiency at the NIH.

RECOMMENDATIONS

To enhance its stewardship activities, we recommend that the National Institutes of Health:

- establish an oversight body that ensures property accountability management responsibilities and control activities for Government property are performed;
- appoint a Board of Survey and Survey officers at each IC and complete investigations and reviews on incidents to accountable property, and conduct them going forward according to property management policy and procedures;
- formalize and implement a performance indicator for the completion of investigations for lost, damaged, stolen, or destroyed accountable property and risk indicators to use together with other performance indicators in its accountable personal property management program;

²² OMB Memorandum M-16-12 states, among other things: “maintain a continual agency-wide inventory of software licenses, including all licenses purchased, deployed, and in use, as well as spending on subscription services (to include provisional (i.e. cloud) software as a service agreement (SaaS));” “analyze inventory data to ensure compliance with software license agreements, consolidate redundant applications, and identify other cost-saving opportunities;” and “develop automated, repeatable processes to aggregate software license and maintenance requirements and associated funding, as appropriate, for commercial and [commercial off the shelf] COTS software acquisitions.”

- implement routine mandatory training for ICs' procurement personnel and Property Custodial and Accountability officers on its Personal Property Management policies and procedures;
- complete corrective actions for FYs 2017 and 2018 FMFIA audits' control deficiency record;
- develop relevant milestones with estimated milestone completion dates that support the implementation of a standardized agencywide operating model that centralizes and integrates software asset management and software license management; and
- employ a primary software asset management tool that centralizes and automates the capture of software inventory and entitlement data into each IC operating environment.

THE NATIONAL INSTITUTES OF HEALTH COMMENTS

In written comments on our draft report, NIH concurred with our findings and recommendations. NIH stated that it plans to establish governance committees that include the ICs and implement appropriate compliance actions for property accountability and control over Government property. Additionally, NIH stated that it will mature its software asset management and software license management capabilities. Lastly, NIH noted that it will provide a timeline to address our recommendations.

NIH's comments are included in their entirety as Appendix C.

APPENDIX A: AUDIT SCOPE AND METHODOLOGY

SCOPE

We focused our audit on NIH's governance, processes, and controls to track and monitor IT hardware, software, and IP addresses that facilitate prudent stewardship of IT assets, information systems, and resources supporting NIH's mission and research initiatives.

We focused our audit on NIH's Intramural Research Program and the assets under its control. We performed our fieldwork at NIH campuses in Bethesda, Maryland, from February to October 2019.

METHODOLOGY

To accomplish our objective, we:

- reviewed NIH's policies, procedures, practices, metrics, and property records;
- interviewed NIH management, personnel, and system and process owners;
- verified the implementation of processes, procedures, and management support activities;
- observed the implementation of reporting, tracking, and monitoring tools and technology; and
- discussed the results of our audit with NIH officials.

We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for the findings and conclusions based on our audit objectives. We believe the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

APPENDIX B: FEDERAL REQUIREMENTS AND GUIDANCE

FEDERAL REQUIREMENTS

Federal Property and Administrative Services Act of 1949, Title 40, Public Buildings, Property and Works

The FPAS, Title 40, Public Buildings, Property and Works, section 524(a) (40 U.S.C. § 524 (a)) mandates: “Each executive agency shall (1) maintain adequate inventory controls and accountability systems for property under its control . . . (13) on a regular basis, conduct an inventory and assessment of accountable personal property under its control”

Office of Management and Budget Circular No. A-123:

- defines agency management’s responsibilities for establishing and maintaining internal controls to achieve its strategic objectives and effective and efficient operations;
- mandates that every Federal employee to safeguard Federal assets and that Federal leaders and managers ensure the compliance with relevant laws and regulations and continuously monitor, assess, and improve the effectiveness of its internal control; and
- requires agencies to integrate internal control functions and base them on the GAO’s *Standards for Internal Control in the Federal Government* (the Green Book) to properly improve internal controls over operations.

Government Accountability Office *Standards for Internal Control in the Federal Government*

The Green Book sets the standards for an effective internal control system for Federal agencies. The Green Book provides Federal managers criteria for designing, implementing, and operating an effective internal control system and sets internal control standards for Federal entities. Internal control serves as the first line of defense in safeguarding assets. Internal control comprises the plans, methods, policies, and procedures used to fulfill the mission, strategic plan, goals, and objectives of an entity. An effective internal control system provides reasonable assurance that management will achieve the desired results for an entity’s operations.

The Green Book defines 17 principles necessary to establish an effective internal control system. The following are among the Green Book’s principles:

- (2) The oversight body should oversee the entity’s internal control system.
- (5) Management should evaluate performance and hold individuals accountable for their internal control responsibilities.

- (6) Management should define objectives clearly to enable the identification of risks and define risk tolerances.
- (10) Management should design control activities to achieve objectives and respond to risks.
- (17) Management should remediate identified internal control deficiencies on a timely basis.

Department of Health and Human Services, *Logistics Management Manual Policy and Procedures*

HHS's LMM states that "personal property is an important resource that shall be managed as closely as financial and employee resources are managed." The LMM prescribes policy and procedures used by HHS to control its resources and perform its missions and is intended to influence the performance in the management of property within HHS and its agencies and offices. The HHS policies and procedures for the management of property include the following:

- All accountable property, including sensitive items, should be identified with an HHS decal/bar code.
- Accountable property records will at a minimum contain the following data elements . . . Decal/bar code number.
- Survey reports for lost, damaged, or destroyed property are promptly prepared and processed.
- Immediately make a preliminary investigation and report the facts using the report of survey.

Office of Management and Budget Memoranda

OMB Memorandum M-16-12, *Category Management Policy 16-1: Improving the Acquisition and Management of Common Information Technology: Software Licensing*, establishes three steps a Chief Information Officer must take to improve software management practices. The following are included in the steps:

- (2) Maintain a continual agency-wide inventory of software licenses, including all licenses purchased, deployed, and in use, as well as spending on subscription services (to include provisional (i.e. cloud) software as a service agreement (SaaS)). Agencies must better understand the true usage of certain types of software.

- (3) Analyze inventory data to ensure compliance with software license agreements, consolidate redundant applications, and identify other cost-saving opportunities. . . . [S]hall develop automated, repeatable processes to aggregate software license and maintenance requirements and associated funding, as appropriate, for commercial and COTS software acquisitions.

APPENDIX C: THE NATIONAL INSTITUTES OF HEALTH COMMENTS



DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

National Institutes of Health
Bethesda, Maryland 20892
www.nih.gov

DATE: August 7, 2020

TO: Amy J. Frontz
Deputy Inspector General for Audit Services

FROM: Principal Deputy Director, National Institutes of Health

SUBJECT: NIH Comments to the Draft Report, *"The National Institutes of Health Should Improve its Stewardship and Accountability Over Hardware and Software Assets"* (A-18-19-06004)

Attached is the National Institutes of Health's comments in response to the Office of Inspector General's (OIG) draft report, *"The National Institutes of Health Should Improve its Stewardship and Accountability Over Hardware and Software Assets"* (A-18-19-06004).

NIH appreciates the review conducted by the OIG and the opportunity to provide the comments to address the recommendations outlined in the draft report. If you have questions or concerns, please contact Meredith Stein in the Office of Management Assessment at 301-402-8482.

/s/ Lawrence A. Tabak, D.D.S., Ph.D.

Lawrence A. Tabak, D.D.S., Ph.D.

Attachment

GENERAL COMMENTS OF THE NATIONAL INSTITUTES OF HEALTH (NIH) ON THE DEPARTMENT OF HEALTH AND HUMAN SERVICES (HHS) OFFICE OF INSPECTOR GENERAL (OIG) DRAFT REPORT ENTITLED: “THE NATIONAL INSTITUTES OF HEALTH SHOULD IMPROVE ITS STEWARDSHIP AND ACCOUNTABILITY OVER HARDWARE AND SOFTWARE ASSETS” (A-18-19-06004)

The National Institutes of Health (NIH) appreciates the review conducted by the Department of Health and Human Services Office of the Inspector General (OIG) and the opportunity to provide clarifications on this draft report. NIH respectfully submits the following general comments.

NIH concurs with all seven OIG recommendations and will provide a timeline to address the recommendations in our management decision letter.

OIG Recommendation 1:

Establish an oversight body that ensures property accountability management responsibilities and control activities for government property are performed;

NIH Response:

NIH concurs with OIG's finding and corresponding recommendation regarding establishing an oversight body that ensures property accountability management responsibilities and control activities for government property are performed.

NIH plans to use the remainder of this year for leadership discussions to establish governance committees that include the Institute and Centers.

OIG Recommendation 2:

Appoint a Board of Survey and Survey officers at each IC and complete investigations and reviews on incidents to accountable property, and conduct them going forward according to property management policy and procedures;

NIH Response:

NIH concurs with OIG's finding and corresponding recommendation regarding appointing a Board of Survey and Survey officers at each IC and completing investigations and reviews on incidents to accountable property and conducting them going forward according to property management policy and procedures. NIH recommends that management and enforcement of these actions be aligned to the oversight body for ensuring program compliance in accordance with regulatory and policy directives.

NIH plans to use the remainder of this year for leadership discussions to establish governance committees that include the Institute and Centers.

NIH will continue to take proper measures to comply with this recommendation.

OIG Recommendation 3:

Formalize and implement a performance indicator for the completion of investigations for lost, damaged, stolen, or destroyed accountable property and risk indicators to use together with other performance indicators in its accountable personal property management program;

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NIH Response:

NIH concurs with OIG's finding and corresponding recommendation regarding formalizing and implementing a performance indicator for the completion of investigations for lost, damaged, stolen, or destroyed accountable property and risk indicators to use together with other performance indicators in its accountable personal property management program.

NIH plans to use the remainder of this year for leadership discussions to establish governance committees that include the Institute and Centers.

NIH will continue to take proper measures to comply with this recommendation.

OIG Recommendation 4:

Implement routine mandatory training for IC's procurement personnel and Property Custodial and Accountability officers on its Personal Property Management policies and procedures;

NIH Response:

NIH concurs with OIG's finding and corresponding recommendation regarding implementing routine mandatory training for IC's procurement personnel, Property Custodial, and Accountability Officers on its Personal Property Management policies and procedures. NIH will review existing policies and make appropriate modifications.

NIH expects that enhancements to the existing standardized mandatory training can be implemented by September 2021.

NIH will continue to take proper measures to comply with this recommendation.

OIG Recommendation 5:

Complete corrective actions for FYs 2017 and 2018 FMFIA audits' control deficiency record;

NIH Response:

NIH concurs with OIG's finding and corresponding recommendation regarding completing corrective actions for FY 2017 and FY 2018 Federal Managers' Financial Integrity Act (FMFIA) audits' control deficiency record. The FMFIA corrective action plan has identified a strategy to resolve the stated issues.

NIH plans to use the remainder of this year for leadership discussions to establish governance committees that include the Institute and Centers.

NIH will continue to take proper measures to comply with this recommendation.

**GENERAL COMMENTS OF THE NATIONAL INSTITUTES OF HEALTH (NIH) ON
THE DEPARTMENT OF HEALTH AND HUMAN SERVICES (HHS) OFFICE OF
INSPECTOR GENERAL (OIG) DRAFT REPORT ENTITLED: “THE NATIONAL
INSTITUTES OF HEALTH SHOULD IMPROVE ITS STEWARDSHIP AND
ACCOUNTABILITY OVER HARDWARE AND SOFTWARE ASSETS” (A-18-19-06004)**

OIG Recommendation 6:

Develops relevant milestones with estimated milestone completion dates that support the implementation of a standardized agency-wide operating model which centralizes and integrates software asset management and software license management;

NIH Response:

NIH concurs with OIG's finding and corresponding recommendation regarding developing relevant milestones with estimated milestone completion dates that support the implementation of a standardized agency-wide operating model which centralizes and integrates software asset management and software license management.

NIH is in the process of conducting a phased proof of concept to ensure the recently acquired SmartTrack tool and software asset management services will meet NIH's requirements. NIH will continue to explore and implement additional process improvements to enhance software asset management and software license management capabilities.

OIG Recommendation 7:

Employ a primary software asset management tool that centralizes and automates the capture of software inventory and entitlement data into each of the IC's operating environments;

NIH Response:

NIH concurs with OIG's finding and corresponding recommendation regarding employing a primary software asset management tool that centralizes and automates the capture of software inventory and entitlement data into each of the IC's operating environments.

NIH has identified a software asset management service provider that is positioned to make use of the discovery tools already in use in the NIH environment. NIH has already taken steps to employ a primary software asset management tool that centralizes and automates the capture of software inventory and entitlement data into each of the IC's operating environments. NIH will continue to mature its software asset management capabilities and will work towards implementing widely-used software asset management tool across the IC environments.