



Annual Report 2022

THE RIGHT INFORMATION AT THE RIGHT TIME



Weill Cornell Medicine

Information Technologies & Services

Table of Contents

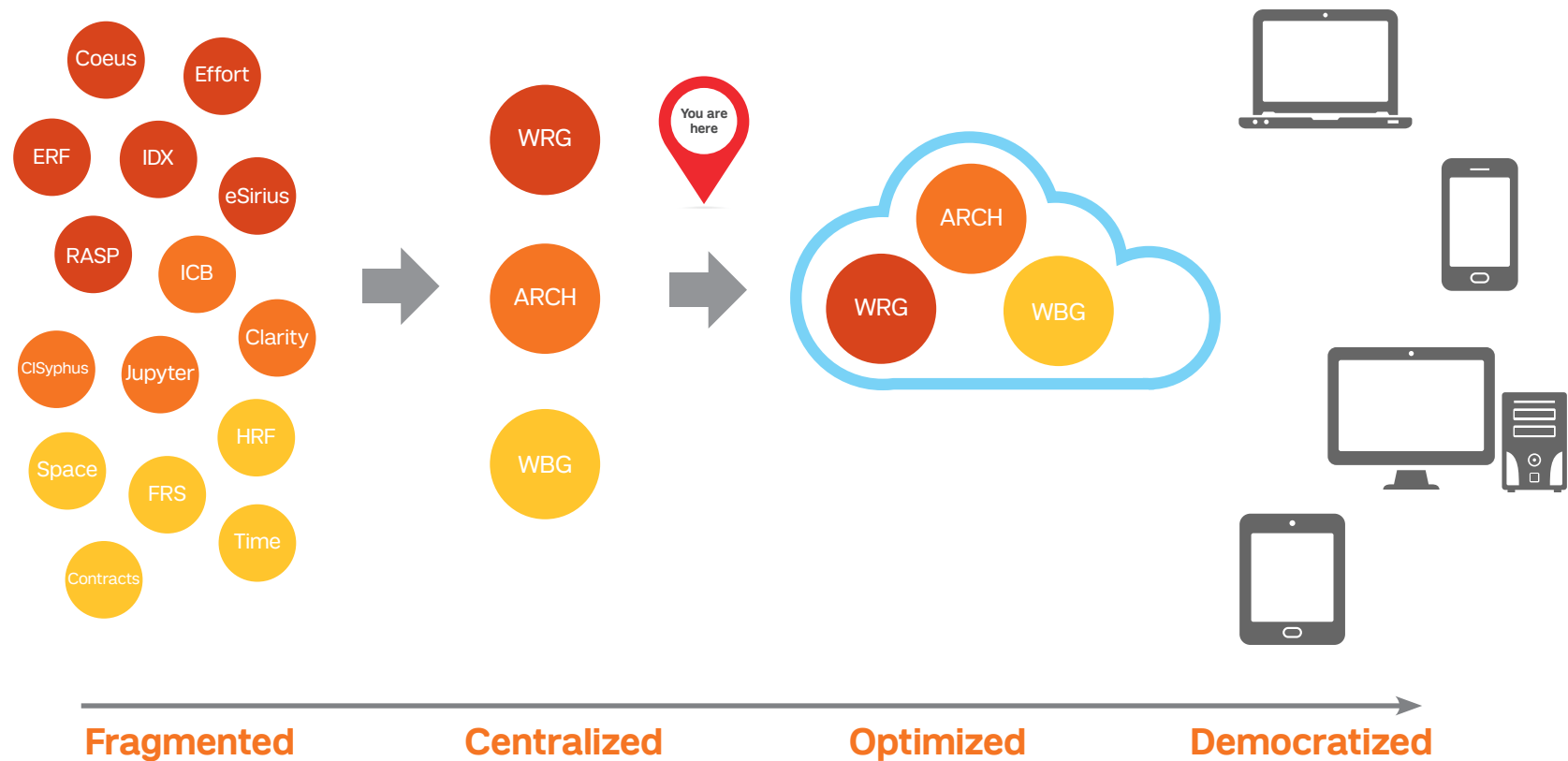
- 4 CIO's Message
- 6 ITS Leadership
- 8 FY22 Score Card
- 10 FY23 Goals
- 12 New Tools & Services
- 14 Research Initiatives
- 18 Clinical Initiatives
- 22 Education Initiatives
- 26 Library
- 28 Supporting Our Services
- 30 Infrastructure
- 32 Service Enhancements
- 36 Security & Identity
- 38 Privacy

Cover photo: Dr. William Huang, Assistant Professor in Clinical Obstetrics and Gynecology, speaks to a patient during a telehealth visit. Credit: Kevin P. Coughlin / Grey Sky Films.

Inside cover photo: Aerial shot of Weill Cornell Medicine and NewYork-Presbyterian campus.

CIO's Message

IT AT WEILL CORNELL HAS BEEN ON A MULTI-DECADE JOURNEY TOWARDS INTEGRATION AND EXPANSION OF CORE SYSTEMS TO IMPROVE EFFICIENCY.



The Future of IT at WCM

We started with scores of systems that automated individual workflows. Gradually, through interfaces and system consolidation, we have fewer systems that have vastly more integrated and complete services. New systems tackling new processes continue to grow simultaneously, but with newer APIs and architectures we are able to maintain a more integrated experience than ever before, despite the rising complexity.

Throughout this growth, we have produced ever-increasing amounts of data. As with the systems themselves, we have gradually worked to consolidate and standardize data through multiple generations of reporting and analytic tools. However, as soon as we achieve easy access to data and reports for one need, more systems, more data, and new needs are created.

WCM is now at a pivotal point in our IT evolution when we seek to radically democratize the data we generate. We need a sustainable, transparent, and easy-to-access cycle, from the systems that create data, to the reporting and analytics that help modify those same processes and systems, constantly improving every aspect of our mission.

The technology is evolving rapidly to support easier extraction of structured information from unstructured data. New collaborations with Ithaca, Qatar, and NYP are coming together with new investments from Strategic Plan 4 in academic informatics and the core infrastructure to support it. Core systems will continue to expand and evolve, but the data they produce, and how those data can be used to shape our future, will be the focus, rather than the technology itself.

There are huge challenges to overcome, including policy and governance to protect privacy, but Weill Cornell has never been positioned better to tackle those challenges. ITS has world-class talent that is engaged and committed to the mission.

We are already seeing glimpses of this future state with the rapid expansion of research data access through ARCH, informative and easy-to-use dashboards for the PO, HR, Education, Research Administration, Diversity, Fundraising, and much more. Both our present and future are exciting. We have never been so ready to deliver the Right Information at the Right Time.

Curtis L. Cole, MD, FACP
Chief Information Officer

ITS Leadership



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DIRECTOR,
RESEARCH ADMINISTRATION



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COMPLIANCE OFFICER



Vipin Kamath
DEPUTY CIO



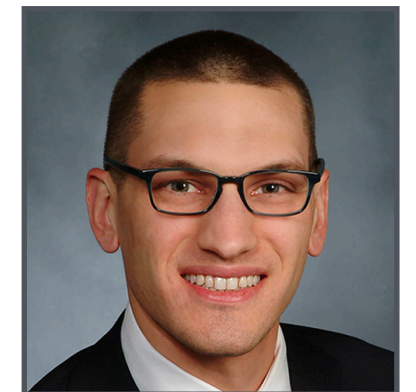
Badar Khan
DEPUTY CIO, QATAR



Christy O'Connor
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Mark Weiner, MD
DEPUTY CIO, HEALTH SYSTEM &
RESEARCH ANALYTICS



Terrie Wheeler
DIRECTOR, LIBRARY

FY22 Score Card

EVERY YEAR, WE REVIEW OUR DEPARTMENTAL GOALS FROM THE YEAR PRIOR TO SEE WHAT WE WERE ABLE TO ACCOMPLISH. HERE'S A SUMMARY OF HOW WE DID THIS YEAR.

Enhance clinical/patient services

- **Hits:** Progress on weillcornell.org redesign, launched badge reader login pilot, built unified reporting dashboard with PO Finance to centralize unified reporting, synched POPS with NYP's Symplr
- **Misses:** Deferred specialty online scheduling matching Epic's scheduling decision trees to FY23

Enrich student learning & teaching

- **Hits:** Improved MSPE letters process, streamlined MD-PhD operations for remote interviews and applications, upgraded classroom tools, processes and tools to address pandemic
- **Misses:** Delayed upgrade to Jenzabar and launch of Slate, unified alumni database still in the works

Enhance technology solutions & services

- **Hits:** Launched 24/7 IT support, simplified upgrade processes for computers, created curriculum to support hybrid/remote work, added Macs to Evergreen service, developed new publication management function for faculty
- **Misses:** Delayed enhancing website search functionality, and simplifying website administration

Streamline research administration

- **Hits:** Improved workflows for IRB, Conflicts, and Grants applications to support regulatory changes, launched new Grant, Contract, and IRB widgets to expand status visibility
- **Misses:** New Proposal and Awards dashboards are still in the works, but almost complete

Protect institutional data & people

- **Hits:** Enabled affiliate login for WBG and Jenzabar, expanded security for cloud services for research (AWS, GCP), automated faster responses to security incidents with Phantom
- **Misses:** Deferred implementation of network access control to prevent insecure devices from accessing WCM resources until FY23

Support scientific innovation & research

- **Hits:** Expanded cloud storage options, created custom research data repositories for long COVID and cancer research, expanded data sources, modernized scientific computing infrastructure and made service more affordable
- **Misses:** Consent process to support biospecimens, genomics, clinical data, and external sharing studies in the works

Advance experience of IT services

- **Hits:** Expanded knowledge base to >5,000 guides, progressed unified communications strategy with NYP, Columbia, Ithaca, and Qatar, optimized email security for remote work, improved Network Access Control on track for FY23
- **Misses:** Delays in asset tracking improvements, Teams Voice launch, and more self-service functionality to website managers

Enable efficient & effective administrative operations

- **Hits:** Launched new travel & expense system for Qatar and Ariba procurement, started pilot for physician credentialing data exchange tool, enhanced data analysis and visualization tools, designed new conference room configurations for hybrid work
- **Misses:** Delays for both Employee Central and HR expansion of out-of-state workforce services

DETAILED SCORE CARD >>

A more in-depth version of our score card is available on our website at its.weill.cornell.edu/annualreports.

FY23 Goals

Enhance services for clinical staff and patients

- Support evaluation and integration of new faculty from Brooklyn Methodist.
- Deploy Imprivata Tap and Go login and other password simplification tools.
- Launch updated weillcornell.org for improve patient access to WCM physicians with new online scheduling features.
- Collaborate with NYP on the role out of *Front Door to Care*.
- Optimize data feed physician profiles at NYP for improved Find-a-Doctor experience.
- Improve reputation management and search engine optimization
- Select a new credentialing system.
- Define a more sustainable support program for small clinical systems.
- Pilot internally-produced patient education videos for syndicated web channels.

Streamline the administration of research

- Hire staff, develop project plans for five major WRG enhancements:
 1. A new *Front Door to Research* application
 2. Revised time & effort tracking module
 3. A new post-award management module
 4. A more scalable document management system
 5. A new NIH “other support” module
- Develop plan and cloud infrastructure for new Clinical Research Administrative Data Warehouse.
- Expand end-user visibility into grant and protocol submission statuses.
- Redesign research.weill.cornell.edu.
- Launch enhanced services for laboratory websites.

Enrich student learning and support teaching

- Launch new graduate school admissions application using next-generation Slate platform.
- Design integrated education warehouse with student and clinical outcome data.
- Implement extended reality (XR) technology for teaching in a secure and supportable environment.
- Implement an online catalog and curriculum management solution for all academic programs.
- Develop a new Academic Milestone Tracking system for the graduate school using the Slate platform.
- Redesign Graduate School website.

Support scientific innovation and research

- Increase scientific computing CPU capacity by half and more than double our GPU capacity.
- Shift 50% of scientific storage to the cloud.
- Develop partnership with Pathology for secure, advanced research services in Google Cloud.
- Provide easier access/reduced time to provision cloud resources.
- Develop expanded training programs for scientific computing topics in collaboration with Ithaca and Qatar.
- Expand cloud and GPU services for Data Core users. Complete safeguards to support CMS data (DMP-SAQ).
- Release a data retention service to support faculty compliance with NIH regulations.
- Introduce a research reproducibility service.
- Expand DMPTool to support WCM research data planning needs.
- Collaborate with NYP and CUIMC on oversight of a new Shared Data service.
- Expand text analytics capabilities, especially full-text search of clinical notes to support cohort identification.
- Expand capacity for EHR analytics by migrating ARCH data lake to Amazon Web Services.

Enable efficient and effective administrative operations

- Complete transition of human resources and payroll systems to a new cloud-based application with support for out-of-state workforce services.
- Mature new procurement system with advanced spend analytics.
- Upgrade 20 conference rooms to optimize hybrid meetings, including major upgrade to Uris Auditorium.
- Implement a new collections management tool for historic and archival collections.
- Convert 1,000 users to cloud telephony.
- Develop new WCM intranet design and ITS website.
- Enhance self-service data analysis and visualization tools and services. Transition to the new BI Gateway as a single launch point for all reports starting with existing administrative reports.
- Launch energy efficiency program with Facilities to help reduce the IT carbon footprint, starting with downsizing our oldest data centers.
- Extend 24/7 synthetic application monitoring to 30 pilot applications.

Improve the user experience of IT services

- Provide faculty with unified view of authoritative data collected about them in diverse systems with promotion status information.
- Enable faculty to curate their own publications with a publications management tool.
- Improve support experience with targeted communications, faster response times, and unified proactive monitoring.
- Optimize OS upgrades and patches with faster testing and deployment, and minimized user disruption.
- Deploy Imprivata or other password simplification tools for all users.
- Simplify and secure remote access with network access control and expanded Evergreen.
- Expand WCM alumni access to certain licensed library content.
- Reduce burden of duplicate annual training through collaboration with MSKCC and NYP.
- Refresh >50% of main campus wireless access points for faster speeds and greater reliability.

Enhance technology solutions and services

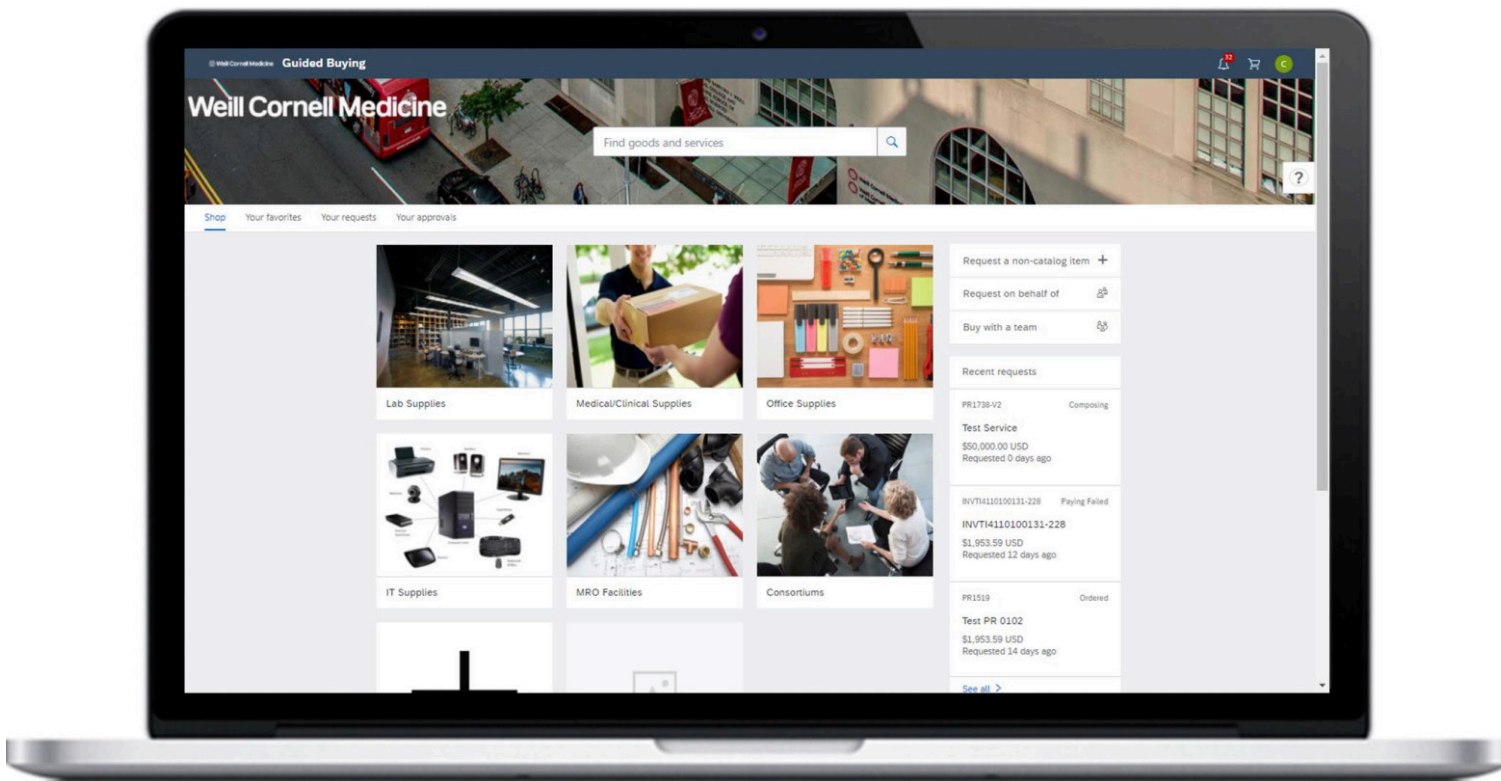
- Develop efficient, scalable, secure, and convenient onboarding and sustained support services for remote employees.
- Develop new tools to automate CV creation for BMH staff and Offer Letters for WCM OFA.
- Develop a Faculty Appointment Dashboard to provide promotion status information.
- Reduce turnaround times by half for device decommissions, file share access processing, password resets, BitLocker recovery keys, and application access rights.
- A new web design and infrastructure with greater focus on mobile layouts, enhanced navigation functionality, and improved calls-to-actions.
- Create a comprehensive information architecture for all our websites to simplify building new websites with reusable, single sources for each specific type of content.
- Test new features for more controlled sorting and filtering of search results on all websites.
- Enhance desktop software upgrade processes with more targeted communication and major OS updates within two months of vendor announcements.
- Improve and simplify security for our expanding remote workforce.
- Update our core identity management system to improve the speed of onboarding and to provide a more intuitive user experience.
- Pilot InTune application delivery and device provisioning.

Promote Diversity, Equity, and Inclusion

- Develop student pipeline programs across the department.
- Expand mentoring program with other departments.
- Grow the Women in IT Forum.
- Complete accessibility remediation for websites.

New Tools & Services

HERE ARE THREE OF THE NEW SERVICES ITS LAUNCHED THIS YEAR TO IMPROVE PURCHASING, PRIVACY, AND LEARNING.



ARIBA PROCUREMENT >>

The new Ariba procurement system launched in the Weill Business Gateway after four years of planning. Users have much better vendor onboarding and registration, sourcing, procurement requisitioning, central contracting, purchase order and invoice management, and more.

The new system eliminates manual processes, provides spend analytics, and aligns WCM with industry standards.

Visit its.weill.cornell.edu/ariba for more information.



BETTER PRIVACY REPORTING >>

Have a HIPAA concern? The Privacy Office implemented better reporting so staff can submit privacy concerns and have them addressed efficiently. You can report a privacy incident at compliance.weill.cornell.edu.



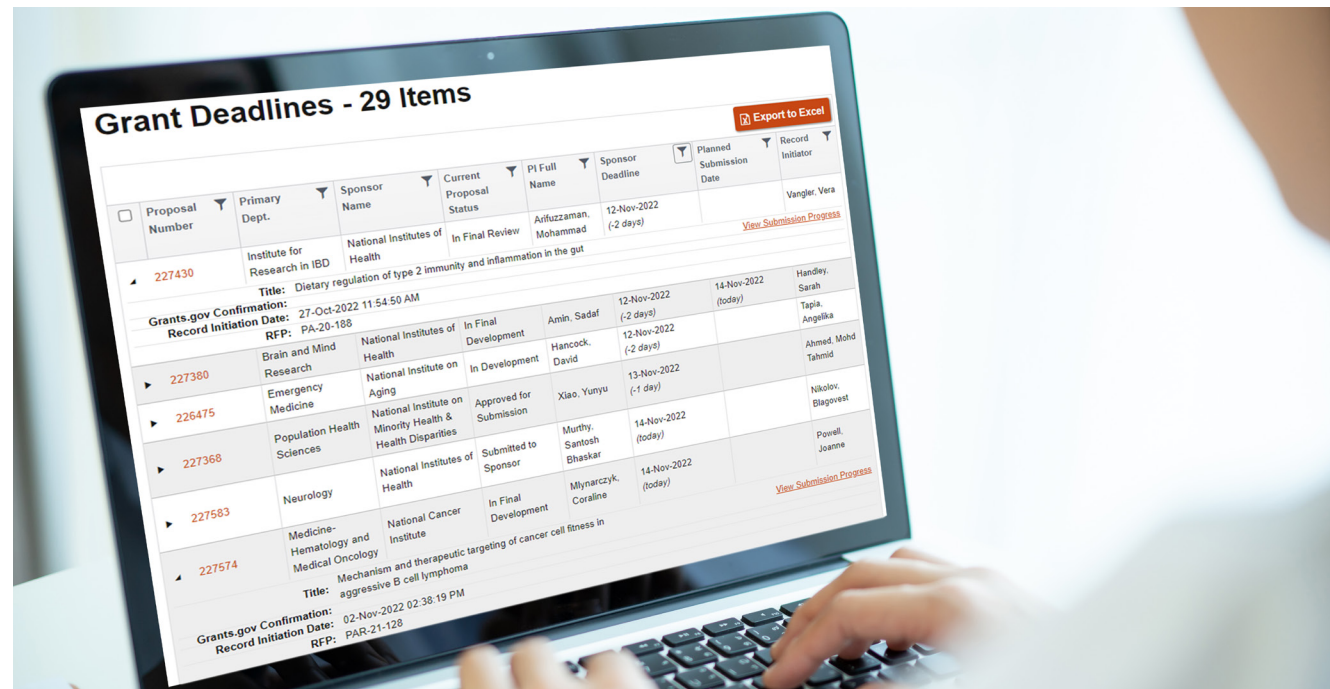
SKILLSOFT PERCIPIO >>

Percipio is the new version of our Skillsoft learning portal for on-demand technical training. Access thousands of courses for free to advance your technical skills, with popular courses like data analytics, productivity, project management, and communication.

Visit weill.percipio.com to access Skillsoft's new course content.

Research Initiatives

ITS IS FOCUSED ON MAKING RESEARCH DATA AVAILABLE AND SIMPLIFYING RESEARCH ADMINISTRATION.



ITS launched a unified data request process across WCM, CUIMC, and NYP. A single form works across each institution's ServiceNow application for all faculty, staff, and student requests for data. In FY22, WCM received 205 total requests. Of these, 61% were research, 26% were clinical operations, and 13% were financial.

Some of our many research projects included the Department of Medicine Quality Improvement Academy, which supported junior faculty with EHR data for studies of sialorrhea and neonatal hypoglycemia, as well as with the Department of Pathology to deploy Google Cloud Platform to enable digital pathology research using sensitive clinical data, including whole slide imaging, tissue, and blood analysis. Furthermore, we enabled the

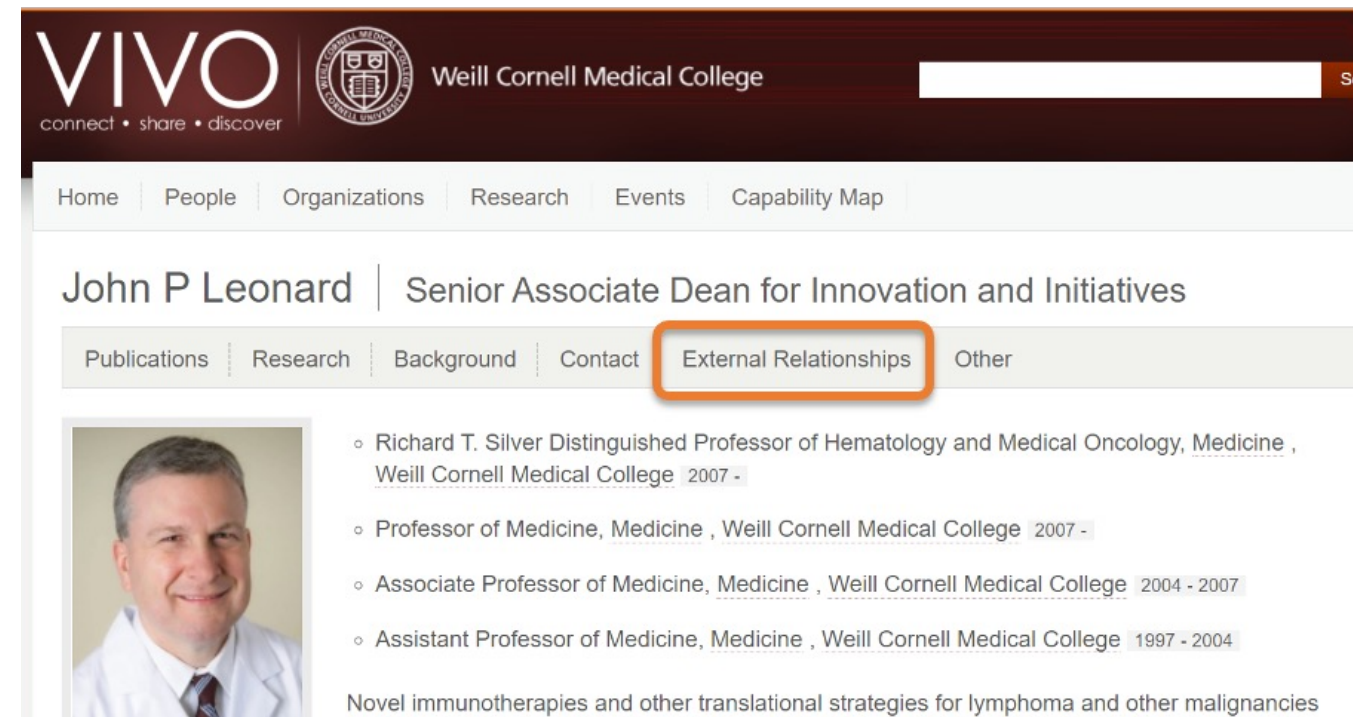
launch of the \$8 million NIH RECOVER initiative for Long COVID research through deployment of Amazon Web Services data infrastructure.

Additionally, ITS continued its enhancements to the Weill Research Gateway (WRG), mainly in the form of widgets (pictured above). These widgets are ITS-developed customizations that expand the system beyond what our vendor supports, making them more user responsive and able to address some of the unique scenarios our researchers experience. We also worked with the Human Research Privacy and Compliance Office to reduce the burden on the investigative teams in abbreviating the IRB application forms in WRG.



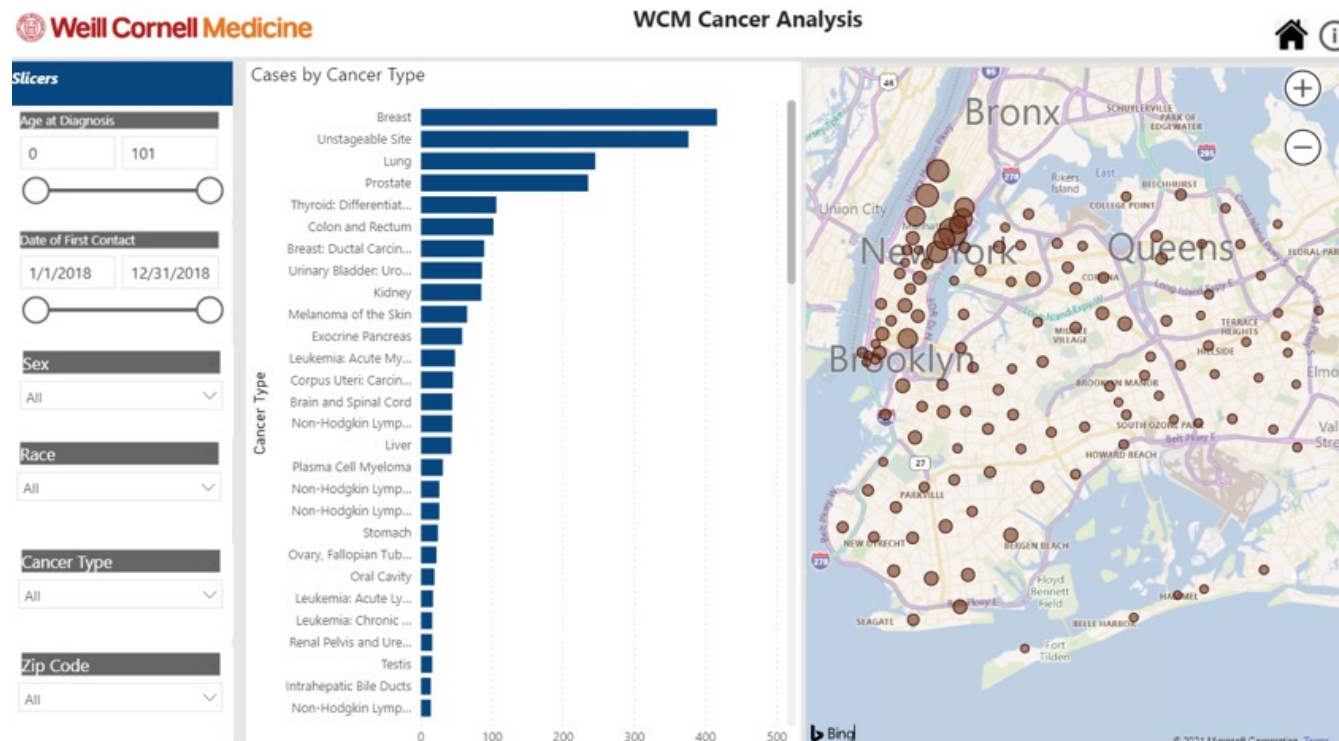
RESEARCH CONSENT >>

DocuSign can now be used for electronic consent from study participants in FDA-regulated clinical research studies. We certified our DocuSign online consent tool in compliance with the Food & Drug Administration's (FDA) 21 CFR Part 11.

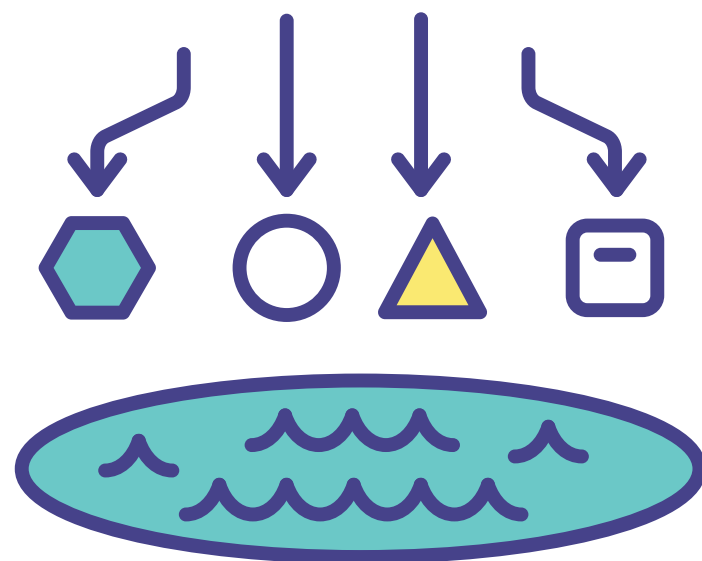


VIVO & POPS UPDATES >>

ITS enhanced the Conflicts of Interest survey, and integrated External Relationships data to VIVO and POPS faculty profiles.



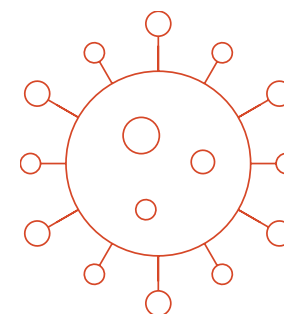
ITS partnered with the Meyer Cancer Center to create a data visualization dashboard of a tumor registry consisting of cases throughout New York City. Users can search by cancer type, age, race, and other parameters.



ARCH DATA LAKE >>

Our centralized data lake repository stores all of our structured and unstructured data from a multitude of sources that ultimately form our Architecture for Research Computing in Health (ARCH) infrastructure. ITS migrated 20 terabytes of data from 25 legacy EHR systems to our Amazon Web Services (AWS) data lake, providing researchers with access to even more data for their studies.

COVID Research



COVID IDR

ITS expanded its COVID Institutional Data Repository (IDR) to include more than 2.9 billion rows of EHR data for more than 511,000 patients.

Need access to the IDR? Make a request at myhelpdesk.weill.cornell.edu.

FY23 GOALS >>

- Reimplement the Human Subjects module focusing on efficiency and ease of use.
- Create user-friendly guided submission pathways in the Weill Research Gateway.
- Create a module for faculty to maintain NIH "Other Support" information.
- Replace the Effort Tracking System to simplify research faculty tracking proposed effort, committed effort, and actual effort.
- Support the Meyer Cancer Center in gathering and validating data for the NCI Designation Grant.
- Build an improved data warehouse for better trend reporting across research administrative systems.
- Establish a uniform process for document management across research systems.
- Complete migration of ARCH data lake to AWS, expanding tools and capacity to support clinical researchers.
- Expand text analytics capabilities of notes to support cohort identification using Electronic Medical Research Search (EMERSE) from the University of Michigan CTSA.



RESEARCH DATA

ITS provided 71 IRB-approved identified patient data sets through i2b2, and enabled 126 EHR data requests submitted via TRAC. We currently store 60+ TB of patient data.



CLINICAL TRIALS

We received 66 clinical trial opportunities through TriNetX, a global database where sponsors can query de-identified EHR data from participating sites to find patients who may be eligible for a trial.

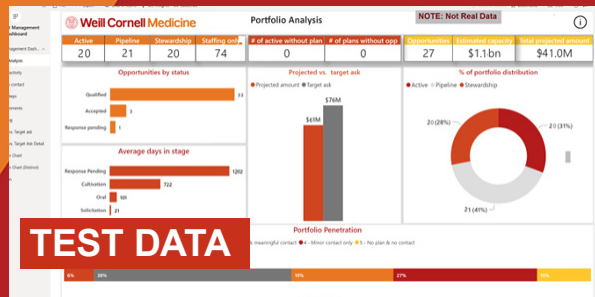


BIOBANKING

We enabled 6 new biobank studies through OpenSpecimen, expanding the total number of studies supported with OpenSpecimen to 21.

Clinical Enhancements

ITS PROUDLY SUPPORTED THE CLINICAL MISSION THIS YEAR WITH ENHANCED TOOLS FOR PATIENTS AND CLINICIANS TO IMPROVE CARE

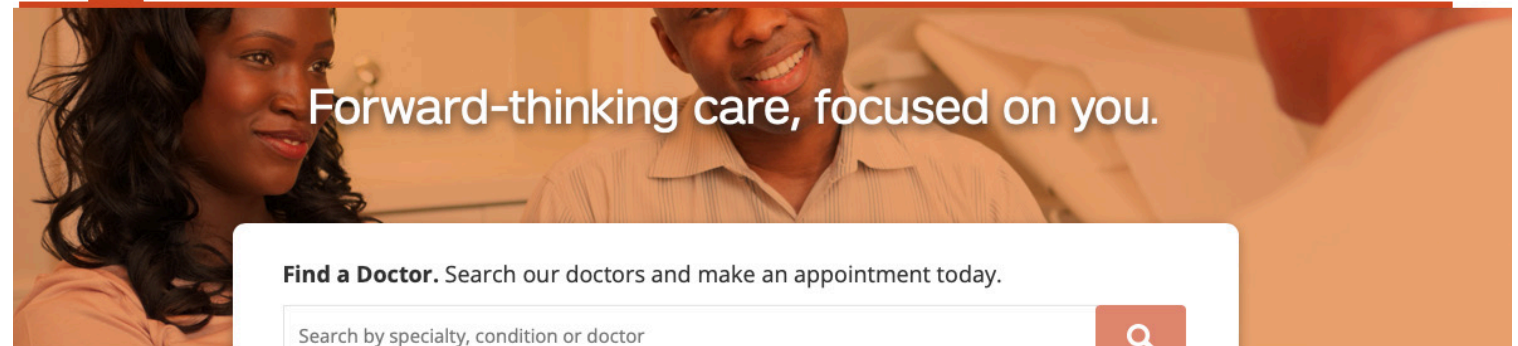


NEW PROSPECT MANAGEMENT POWER BI DASHBOARD FOR EXTERNAL AFFAIRS

In support of the *We're Changing Medicine* capital campaign, and other fundraising efforts, a new dashboard helps gift officers visualize their fundraising portfolios to help with strategic decision making and portfolio recommendations.

We're Changing Medicine.

Change it with us.



This year, patients booked 26,000 appointments through weillcornell.org, more than twice the number scheduled last year.



ENHANCED SEARCH ON WEILLCORNELL.ORG

Integrated POPS physician data ensures accurate representation of WCM's physicians on NYP's Find a Doctor, and makes it easier for patients to find the information they need.



EPIC SCREEN-POP IMPROVES CALL CENTER EFFICIENCY

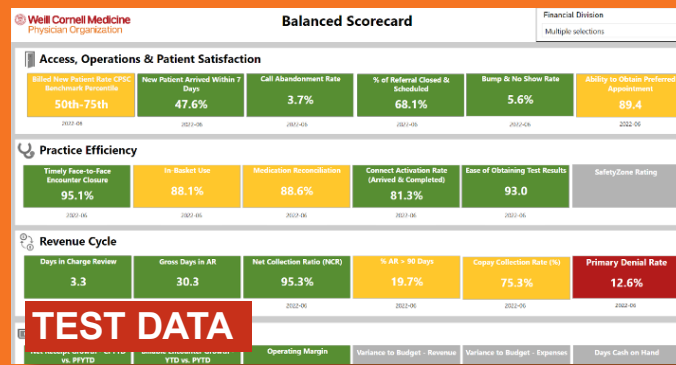
Caller ID is now used to automate patient identification in Epic before a call is answered, saving time for agents and patients.

weillcornell.org stats

- 1,846** TOTAL CLINICIANS
264 new provider profiles
254 providers with online scheduling
- 638** TOTAL SERVICE LISTINGS
- 377** TOTAL PRACTICES
- 402** TOTAL POSTINGS
Including news articles,
blog posts, events, and podcasts

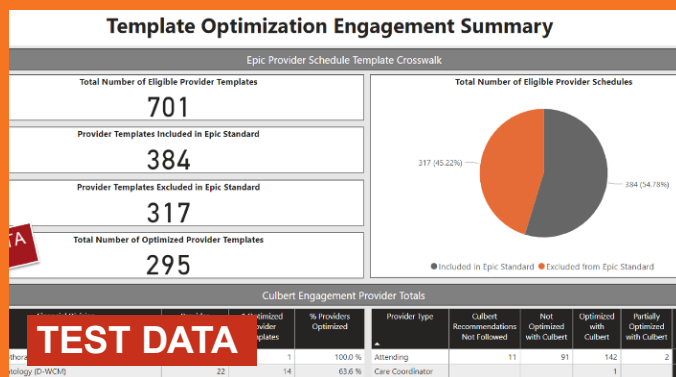
Power BI

THIS YEAR, WE BUILT SEVERAL NEW SOPHISTICATED DASHBOARDS WITH THE PHYSICIAN ORGANIZATION FINANCIAL SERVICES.



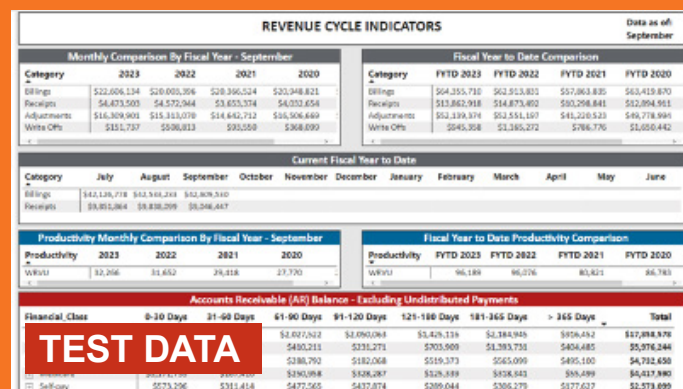
PO EXECUTIVE DASHBOARD

Joins data from multiple clinical and admin systems to monitor key performance indicators across entire PO, with drill-down capabilities into individual clinical business units. Clinical operation leaders use this dashboard to drive continual performance improvements.



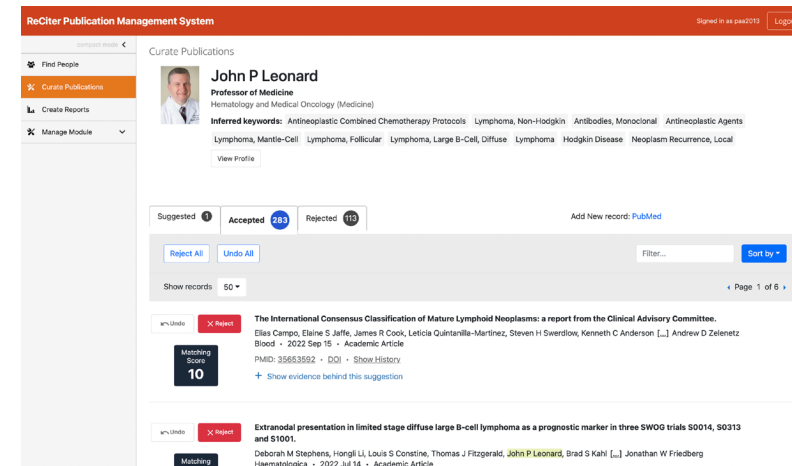
TEMPLATE OPTIMIZATION

Online scheduling requires optimized provider templates. This dashboard helps departments identify issues to improve patient access.



REVENUE INDICATORS

Reports on Revenue Cycle trends for each Surgery division. This dashboard moves the PO closer to automated organizational reporting and setting manual PDF reports.



NEW FACULTY SUPPORT TOOLS IN THE ACADEMIC STAFF MANAGEMENT SYSTEM (ASMS)

ITS launched a new mentoring tracking program for Pediatrics that will become a model for other departments.

Our new Publication Management System integrates ReCiter results with a management interface, which lets faculty review their automatically-tracked publications, ensuring accurate profiles. They can also curate publications by Author and other attributes.

FY23 GOALS

Enhance services for clinical staff by:

- Redesigning weillcornell.org website to improve patient experience with uniform practice and service information, and new mobile services and digital communication tools.
- Expanding online scheduling with open scheduling, in collaboration with the NYP Front-Door-to-Care initiative.
- Improving physician profiles and Find a Doctor.

- Supporting evaluation and integration of new faculty from Brooklyn Methodist.
- Developing better support for patient education videos.

Improve the user experience of IT services by:

- Providing faculty with a unified view of authoritative data collected about them across systems with promotion status information.
- Exploring unified telephony and directories with NYP, Columbia, Ithaca, and Qatar.



Enable efficient and effective contracting by:

- Planning replacement of physician credentialing system.

Enhance faculty services with:

- New Academic Staff Management System (ASMS) features such as CV export, historical data reporting, academic offer letter creation, and faculty activity review.
- A usability review of ASMS and related tools.



Education Initiatives

ITS SUPPORTS MEDICAL AND GRADUATE EDUCATION AS WELL AS TRAINING AND PROFESSIONAL DEVELOPMENT OF FACULTY AND STAFF

Hybrid Meetings

Tips for holding productive meetings for in-person and virtual participants

BEFORE the meeting

- ASSIGN A CO-HOST**
A cohost can help you manage things behind the scene, keeping on top of those who may not be as familiar with the Mute button.
- KNOW THE TECHNOLOGY IN THE ROOM**
Conference rooms may be slightly different. Conduct a dry run beforehand to make sure everything works smoothly!
- CONDUCT AN INTERNET SPEED TEST**
Do a quick check using your tool of choice — we like [Speedtest](#)!
- SET GUIDELINES + EXPECTATIONS**
Want your participants to bring their laptops? Need everyone on video? Going to record the session? Let your participants know ahead of time!

DURING the meeting

- KEEP YOURSELF MUTED**
The rule of all rules! Background noise can really mess with the flow of a meeting and even cause extra chaos during Hybrid Meetings. (Crazy alien feedback noises anyone?)
- CONSIDER TURNING ON VIDEO**
Video is a great way to keep engaged. Let them see your smiling face!
- USE ZOOM'S BUILT IN TOOLS TO ENGAGE**
We love using the Chat, Raise Hand, Polls, and Breakout Rooms features!
- HOLD SPACE FOR ALL PARTICIPANTS**
The nature of Hybrid Meetings tends to favor those in the conference room. Make sure to hold space for all participants to share their thoughts + ideas!

AFTER the meeting

- FOLLOW UP WITH YOUR PARTICIPANTS**
Whether it's meeting notes, action items, sharing a Zoom recording, or just saying thank you... Good meeting etiquette encourages following up with participants!
- SHARE THE ZOOM RECORDING**
If you opted to record your meeting, Zoom will automatically download that file. Make sure to share with your colleagues!
- DON'T FORGET THE ZOOM WAVE**
Where did that come from anyway?

Weill Cornell Medicine

Educational Technologies developed training and support materials to ensure all meeting and classroom participants had a great experience, regardless of location.

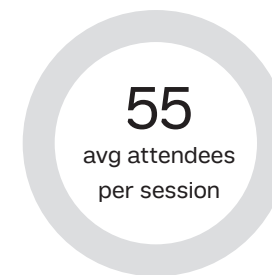
TIPS FOR HYBRID MEETINGS >>

The team created a Tips for Hybrid Meetings video and handout, and hosted workshops with faculty and staff across academic programs to focus on increasing engagement using technology.

CLASSROOM MODIFICATIONS >>

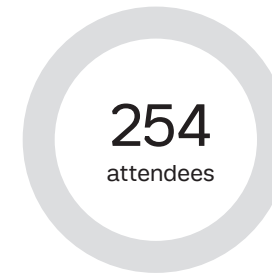
For hybrid classes, each Education Center classroom was outfitted with an additional ceiling-mounted microphone and dedicated iMac for connecting to Zoom.

Training metrics



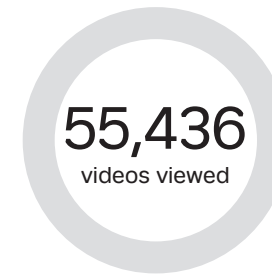
TECH TUESDAYS

Our 27 Tech Tuesday sessions introduced 1,492 users to popular tech tools and software.



COACHING LABS

We held 45 coaching labs for focused training on subjects like eTime and Ariba.



LINKEDIN LEARNING + PERCIPIO

All WCM users get free access to self-paced video courses.

WCM NAMED AN APPLE DISTINGUISHED SCHOOL



WCM was named an Apple Distinguished School for 2021 – 2024 for our innovations using Apple products in the school environment.

IDA COURSE GETS SOME FLAIR



The Cornell-Penn Interview for Decisional Abilities (IDA) is a tool developed for Adult Protective Services (APS) workers when gathering information about a client's decision-making abilities.



Ed Tech helped the Division of Geriatrics and Palliative medicine make the IDA certification course entirely online – and we gave it some flair. We designed and integrated badges that allow learners who complete the course to showcase their digital credentials as they move through the program.

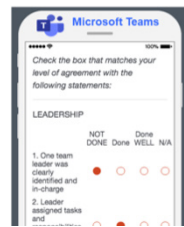
O365 APPS IMPROVE TRANSITION TO RESIDENCY COURSE

How do you make a Transition to Residency course feel more like the real thing? Ed Tech collaborated with Transition to Residency (TTR) leadership and staff to support experiential learning activities with O365.

In clinical simulations, students' phones pinged with mock pager alerts from Microsoft Teams. They rated each other's performance and volunteers projected real-time feedback from the Microsoft Forms polls onto screens for discussion.

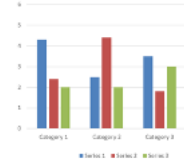


CONSULTANTS PEER FEEDBACK CHECKLIST



DEBRIEFING

Show Teamwork Feedback
Peer assessment



Where do MD-PhD Grads go next?

Graduates of the Tri-Institutional MD-PhD program go on to distinguished careers as physician-scientists in a great variety of specialties, at leading institutions across the country. The interactive visualization in the Residency Matches Power BI dashboard shows where our alumni have matched since 2001.



TIP UP

This year we made 16 TipUp videos that received a total of 2,594 views.



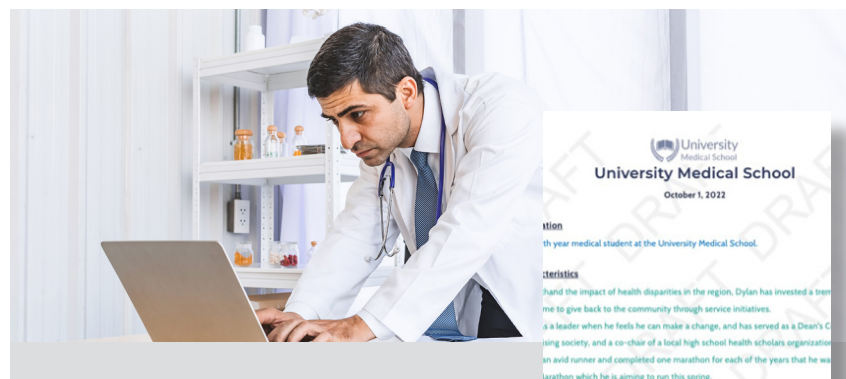
TECH CONNECT

We held 20 Tech Connect sessions for 122 participants.



REMOTE PROCTORING

We held seven sessions for 448 NBME exams.



NEW MSPE BUILDER

The Altus (One45) Analytics tool allows the medical school to track a student's progress from admissions through graduation. We added the MSPE Builder, which generates the Medical Student Performance Evaluation (MSPE) letter – a key activity for the medical school.

FY23 GOALS



Enrich student learning and support teaching by:

- Implementing next-generation Slate platform starting with graduate school admissions and academic progress tracking.
- Designing integrated education data warehouse with student and clinical outcome data.
- Employing virtual/augmented reality technology for teaching.

- Streamlining remote interviews and application review for MD-PhD program.
- Enhancing online, hybrid, or in-person learning.
- Upgrading Jenzabar to a cloud-based student information system.
- Creating a unified alumni database across WCM programs.
- Improving onboarding services for remote employees and building a new curriculum to support the hybrid and remote workforce.

Samuel J. Wood Library



PRINT MEDIA

Our Duplicating team bounced back after the pandemic with a **24% increase** in printed materials over last year.



COLLECTION

Our collection boasts over **230,000 electronic titles**, as well as almost **80,000 physical titles and items**.



DATA CORE

We had a peak of almost **250 data core requests in just Feb. 2022 alone**, and added **140 users** to our research environment.



Librarians Andy Hickner (left) and Michelle Demetres (right) present the Wood Library's work on systematic reviews over the last decade at the Annual Meeting of the Medical Library Association in New Orleans. In ten years, the service has grown from one librarian with two requests to eight librarians tackling over 60 requests in FY22, and over 300 overall. Our most highly cited systematic review has received 820 citations since its 2014 publication.

The Library continues to expand our scholarly services. This year we hit a new record number of both systematic review requests (64) and total publications (33).

We also launched our Bibliometric Report Generator, which automatically produces an individual's scholarly influence metrics as compared to peers. The generator empowers busy decision-makers to instantly generate sophisticated and valid bibliometric reports.

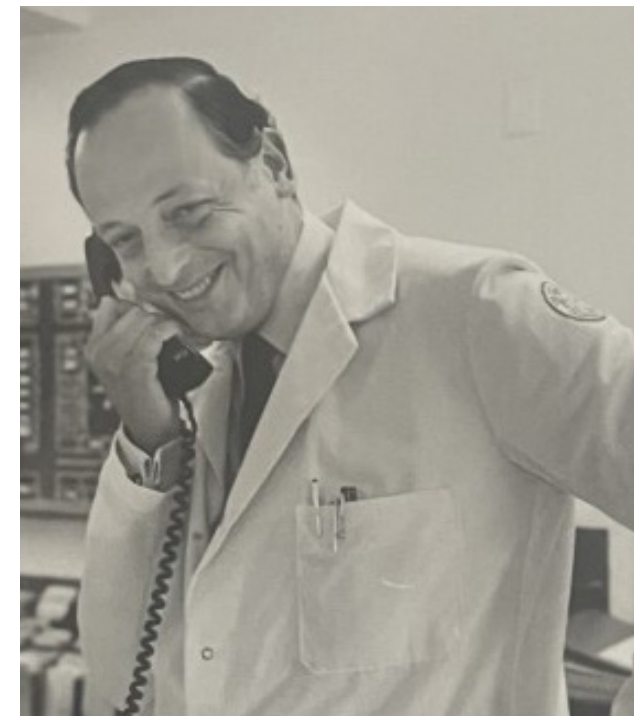
The WCM Institutional Data Repository for Research (WIDRR) also launched to facilitate compliance with 2023 NIH research data retention guidelines. Researchers need to archive data when one of three events occur: publication of research, grant close-out, or leaving the institution. During the data archiving process, one can also opt to make the dataset metadata visible and or shareable through our Data Catalog.

FY23 GOALS



- Introduce research reproducibility service to improve data management, retention, and transparency.
- Enhance Data Catalog with terminology for systematic record naming and data retention tool.
- Implement a collections management tool to facilitate easier access to archival collections by staff and researchers.
- Enable faculty to curate their own publications with a publications management tool.
- Enhance Data Core service with a cloud-based computing environment.
- Expand alumni remote access to licensed content.
- Expand DMPTool for research data planning needs.
- Launch David J. Wolf, MD Visiting Research Scholar Program, enabling a scholar to conduct research in our historic archival collections.

Preserving WCM History



The ongoing work to preserve and create accessibility to the historic materials in the Medical Center Archives will now be supported by the Phyllis and Harvey Klein, MD Family and Friends Archives Endowment.

Dr. Klein (seen at left in 1981) was a beloved and respected physician and educator for 55 years, as well as an avid photographer and advocate for the visual history of the NewYork-Presbyterian/Weill Cornell Medical Center.



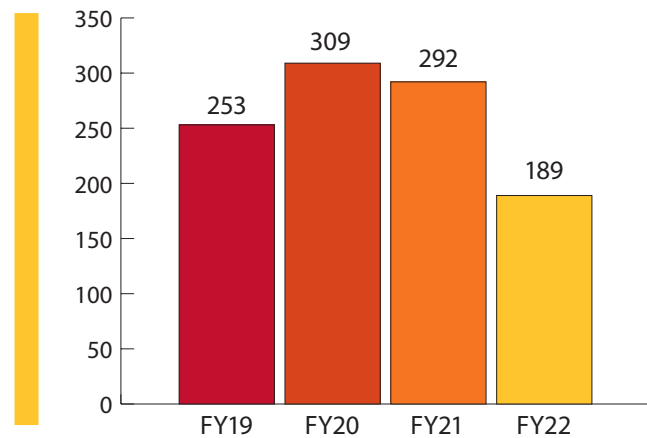
Supporting Our Services



IT SUPPORT IS NOW 24/7! USING OUR PARTNER IN INDIA TO “FOLLOW THE SUN,” USERS CAN NOW CALL US ANY TIME.

We also enhanced our popular Evergreen laptop subscription service, with two new Mac models. ITS can quickly ship directly to Evergreen users,

saving departments the upfront cost of a machine, and broken devices are replaced even when they are out of warranty.

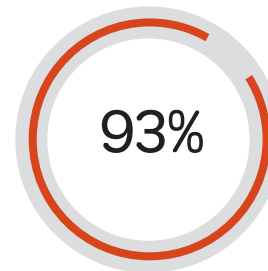


Resolving IT tickets

ITS supports more users and more devices at more locations every year with only small increases of our own staff. That efficiency comes from more proactive desktop management, more efficient support processes, improved training, and better self-service tools. Our technicians resolved about a third fewer tickets than two years ago, a return to pre-COVID demand.

By the numbers

We have tens of thousands of users and devices to support. Here's how we work to help you every day:



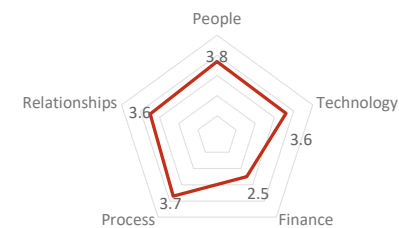
CUSTOMER SATISFACTION

Our customer satisfaction rate has been **93% for the last two years**. The national average for IT service desks is 90%, but our goal is 95%.



RESOLUTION TIME

Our techs resolve most issues in **32 hours**. The national average is 48 hours but our goal is to get below 24 hours.



GARTNER PPM SCORE

Our Project & Portfolio Management Maturity score **increased slightly to 3.5** from 3.4 last year, continuing our steady improvement.

THE PM LITE PROGRAM



To accommodate more project requests, ITS offers a Project Management (PM) Lite program which guides users to successfully manage their own IT projects. This program accounted for **59%** of all projects in FY22.



PROJECT LENGTH

Large projects took an average of **143 days** to complete, a 5% decrease from FY20.



ONLINE HELP

The thousands of articles in our myHelpdesk knowledge base is viewed over **8,000 times a month**, helping users solve issues quickly.



LET'S CHAT

Did you know we offer chat support? Each of our techs fielded **452 support chats a month** at myHelpdesk. Try it the next time you log in for assistance!

Infrastructure

THE INFRASTRUCTURE TEAM PROVIDES THE TECHNOLOGY BACKBONE TO DELIVER THE APPLICATIONS AND SERVICES WE USE AT WCM. THIS YEAR'S FOCUS WAS ON SECURING AND STABILIZING KEY PLATFORMS.



\$480,000

Three year cost savings achieved by moving backups from old tape to cloud-based Amazon Web Services.



\$100,000

Cost savings realized this fiscal year with Zesty, a new tool that resells virtual machines in accounts that are no longer being used.



11

WCM apps migrated to NYP's Citrix or Remote Apps (RDP), which allowed us to sunset old Citrix technology.



SECURED O365 INFRASTRUCTURE TO PROTECT OUR NETWORK

After noticing almost 1,000 attempts by bad actors to attack O365, we eliminated an old protocol and enabled modern two-factor authentication for all remaining O365 apps, thwarting malicious attacks with minimal user impact.



RE-ENGINEERED VIVO PLATFORM TO IMPROVE STABILITY

We optimized some code and integrated a new technology called Docker to eliminate daily crashes and improve overall performance of this open-source research profile system.

SECURE RESEARCH DATA ENVIRONMENT FOR PATHOLOGY >>

We deployed a new Secure Research Data Environment (SRDE) that serves as a "data lake" for the Department of Pathology. It can ingest and export research data, and allows for the sharing of data with partner institutions.

FY23 GOALS >>

- As part of our cloud-first strategy, evaluate new and existing systems for potential to move to a cloud provider to reduce data center footprint.
- Enable easier access to shared O365 applications by allowing our partners to login with their own institutional credentials.
- Upgrade virtual server and file sharing infrastructure for better security, stability, and efficiencies.



STORAGE AND NETWORK RESILIENCY

1.5 PB

ALL-FLASH BLOCK STORAGE

Currently provisioned for servers and virtual machines

550 TB

CLOUD STORAGE

Currently used on Box

2 PB

FILE SHARING STORAGE

Currently provisioned tiered to performance and archive usage

1.7 hours

MEDIAN RESOLUTION

For network downtime, down 2.8% from last year

53%

FIRST CONTACT RESOLUTION RATE

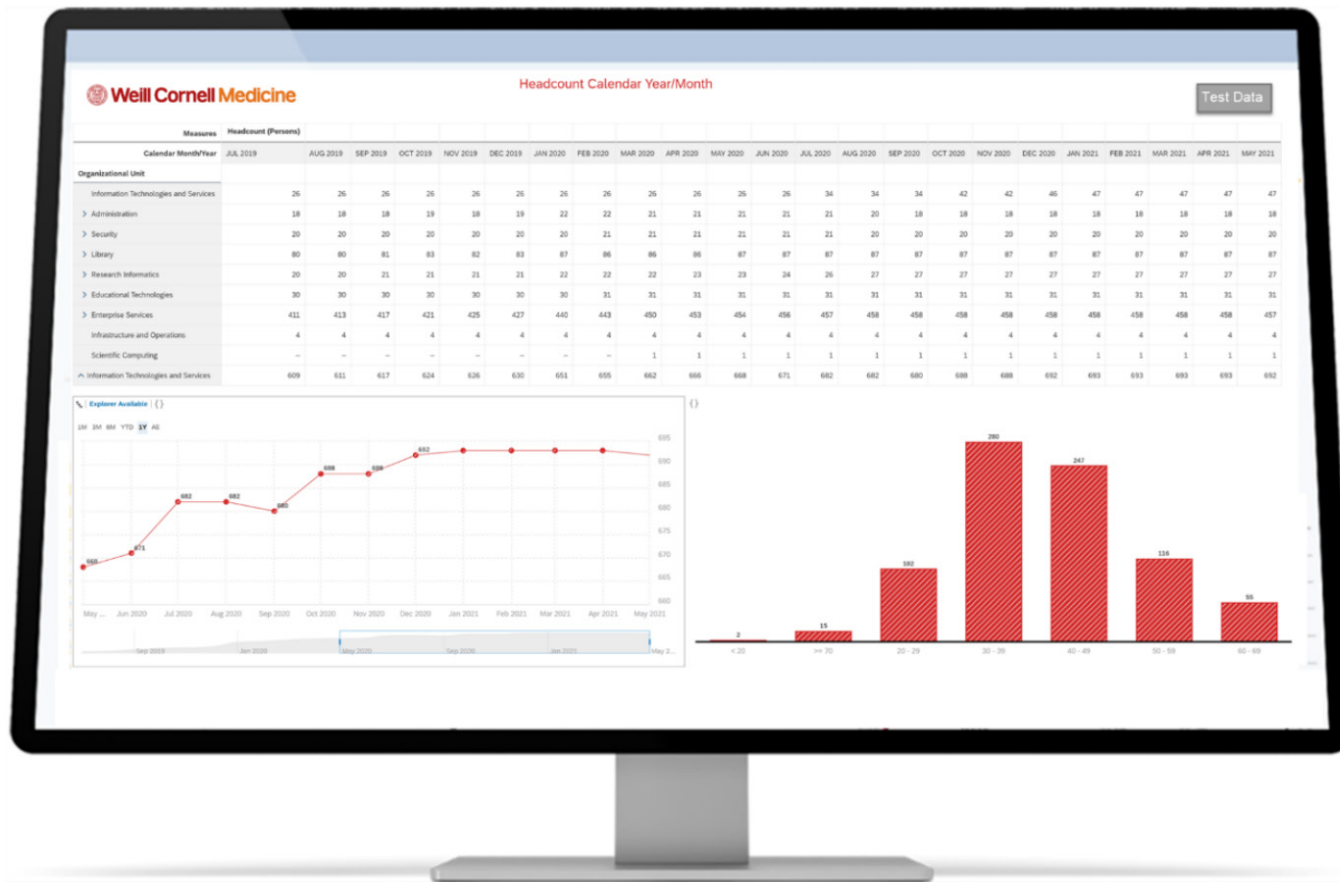
For network issues, up 5.3% from last year

60

NETWORK OUTAGES

Down 13% from last year. Zero user impact due to redundancy

Administrative Service Enhancements



Administrative Reporting statistics

- 100%** INCREASE IN JOBS
30K jobs run this year double since 2015
- 208** PEAK USERS IN SINGLE DAY
- 1,190** PEAK REPORTS RUN IN SINGLE DAY



CONCUR TRAVEL AND EXPENSE EXPANDS TO ENTIRE WCM-QATAR CAMPUS

The cloud-based SAP Concur Travel and Expense module was rolled-out to 300 WCM-Q faculty and staff to streamline their travel planning and reimbursement processes.

65% downtime reduction

We automated the NY and Qatar annual budget rollover, reducing downtime from 12 days to 4.

BI GATEWAY LAUNCHED AS NEW PORTAL FOR ADMINISTRATIVE REPORTING >>

The cloud-based BI Gateway unifies three separate systems, giving users access to various departmental reports in one place. Users create data visualizations that can be customized and shared. After a hefty migration effort, there are currently 252 Stories live in the BI Gateway. We conducted dozens of Coaching Labs and Private Training Sessions to help our users prepare.

COACHING LAB FEEDBACK

"Nothing is more productive than having a hands-on experience to learn new software." - BI Coaching Lab attendee



ITS + HR Collaborations



ANNUAL FACULTY LETTERS

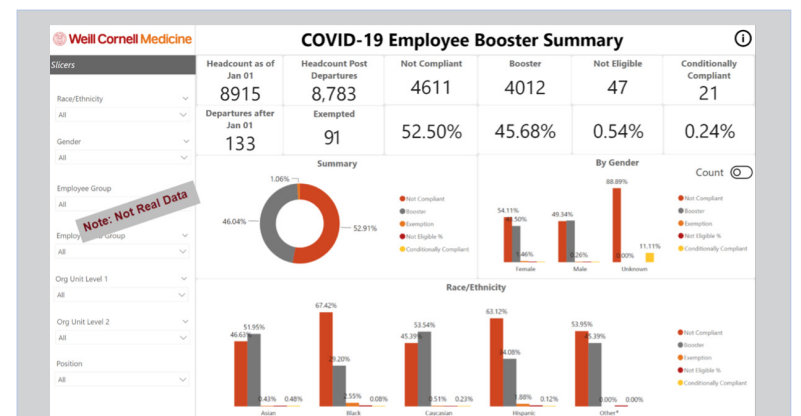
We simplified sending Annual compensation letters to faculty.

HARTFORD INVOICING REPORT

A new comprehensive Benefits report eases the administrative burden of monthly insurance and premium communications to the Hartford company.

AFFIRMATIVE ACTION PROGRAM (AAP) REPORT

We developed a complex report that combines key data needed for twice-yearly AAP reporting.



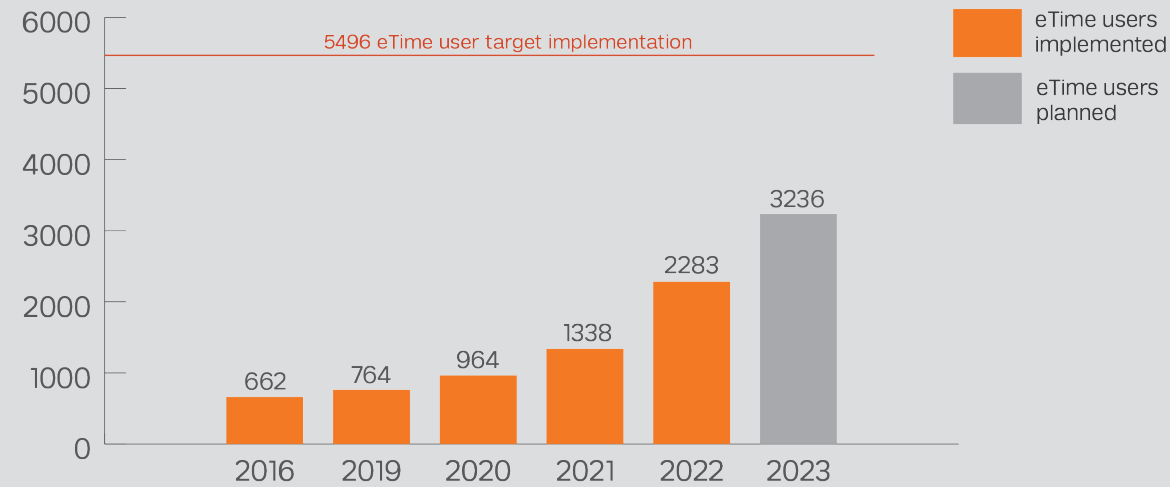
POWER BI DASHBOARDS HELP HR KEEP TABS ON COVID

The COVID-19 Employee Booster Summary and Employee COVID Testing Report help HR capture and track employee's booster status and employee testing, a requirement for employees who are exempt from vaccination.

ELECTRONIC TIMEKEEPING EXPANDED TO 10 MORE DEPARTMENTS

300 new users gained access to our eTime solution in WBG, where they can submit leave requests, time sheets, and clock in and out.

eTime Implementation



UPGRADED AVAYA PHONE SYSTEM

New features for remote and hybrid workforce

16%

IMPROVEMENT IN PAGE LOAD SPEED on myHelpdesk and HRSC due to enhancements in ServiceNow

FY23 GOALS



Enhance technology solutions and services by:

- Enhancing website search.
- Upgrading website administration to Drupal 9, which offers more self-service functionality.
- Replacing on-prem SAP HR and Payroll systems with SuccessFactors Employee Central, a comprehensive suite of cloud-based HR and Payroll applications and reporting.

Improve the user experience of IT services by:

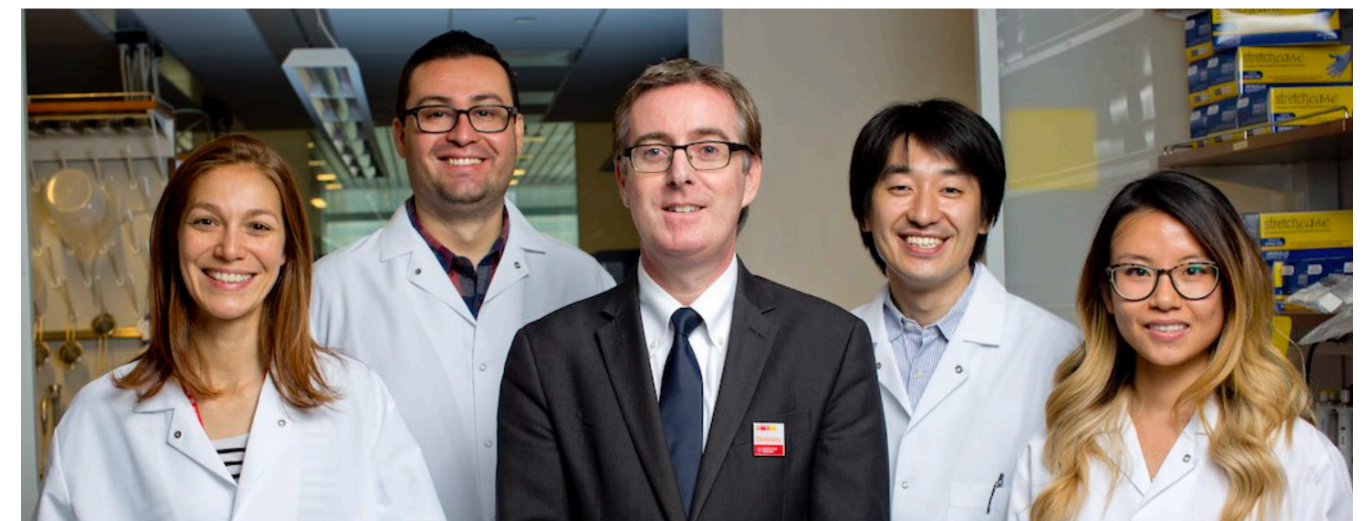
- Unifying POPS with other tools to streamline identity management.

- Expanding next-generation telephony systems, like Avaya softphones and Teams.
 - Improving ITS efficiency with new asset tracking in ServiceNow.
- Enable efficient administrative operations by:
- Completing HR and payroll systems support for out-of-state employees.
 - Maturing new procurement system with advanced spend analytics.
 - Streamlining the Grants Billing and Payment process and standardized system transactions.
 - Assisting HR with Phase 2 of Recruiting Talent Acquisitions Metrics Dashboard, and building HR Executive Dashboard.

19

Websites launched, redesigned, or migrated

The Friedman Center for Nutrition & Inflammation got a new virtual home this year. Other new websites include the Office of Institutional Equity, Metabolic Health, and the student residence hall planned for 1393 York.



Friedman Center for Nutrition and Inflammation

Enhance data analysis and visualization tools and services by:

- Developing ITS Scorecard version 2.0 to give departments drill down details about out-of-compliance devices, open tickets, total assets, and total costs.
- Expanding BI Gateway with more Power BI Dashboards, PO Reports, Cognos, Ariba, and Employee Central.

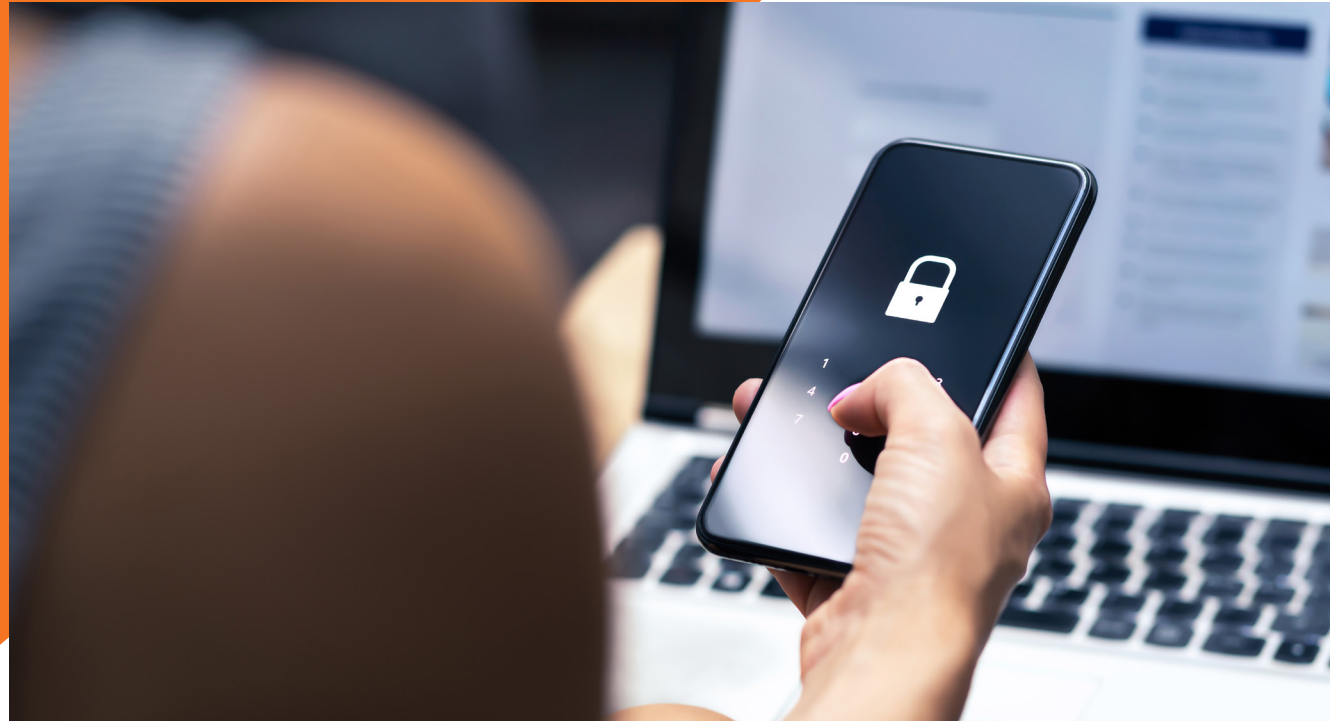
Promote Diversity, Equity, and Inclusion by:

- Enhancing the Diversity & Equity Dashboard with trending and ability to analyze by department and division.

Optimize remote access by:

- Upgrading the VPN appliance.
- Upgrading central conference rooms with Zoom Room to improve hybrid meeting experience.
- Making major upgrades to Uris Auditorium.
- Converting 1,000 users to cloud telephony.

Security & Identity



PHISHING ATTACKS REMAIN ONE OF THE TOP SECURITY RISKS TO WEILL CORNELL MEDICINE.

Even though our systems block more than 99% of malware, about 38,000 malicious emails still reach our users each year. User education is a critical part of our defense, including our new campus-wide phishing education program. Thanks to our regular phishing tests and Phish Camp (phish-camp.weill.cornell.edu) training module, users are better able to identify potential scams, with over 4,500 users reporting about 22,000 emails in FY22.

We further secured our services by removing the SMS texting option from Duo – which is easy for hackers to intercept – and selected a new tool to help us better analyze the security of devices that connect to our network every day.

ITS also reduced loading times of our MARIA identity management system so department administrators could have a better experience in the tool while managing staff access to services. We also made improvements to our Offboarding application so departments can easily track activities that need to occur when an employee leaves the institution or transfers to a new role.

Qatar users can now log into WBG with their WCM-Q credentials rather than requiring duplicate NY credentials.

Finally, we were able to successfully migrate many components of our identity management services to cloud infrastructure and services, netting us better resiliency and performance.

By the numbers



You may not even realize it, but our Security team has your back! Here's how we handle threats to your information:



EMAIL PROTECTION

ITS blocks **over 5 million malicious emails** a month, with 67% being phishing scams.



COMBATING VIRUSES

Our antivirus software detects about **440 suspicious files** every month, as well as **1,000 suspicious behaviors**.



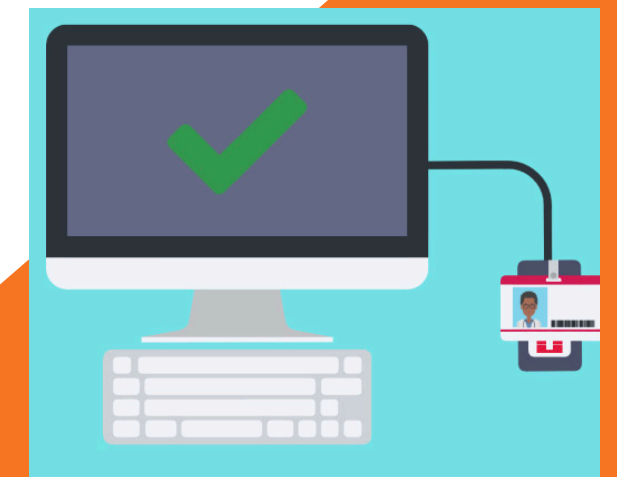
IDENTITY VALIDATION

We process about **6,800 Duo validations** a day to ensure you're the only one with access to your accounts.



SECURE NETWORK

AnyConnect VPN provides a secure network when working off-campus, with an average of **2,000 daily sessions**.



FY23 GOALS >>

- Deploy new system allowing for “passwordless” login, simplifying authentication while protecting our services against phishing. After a successful pilot in FY22, we will roll out our new Tap and Go badge reader system (above).
- Automate more tasks to monitor suspicious activity and protect our network and devices.

Privacy

MAKING IT EASIER TO PROTECT PATIENTS AND PROVIDERS

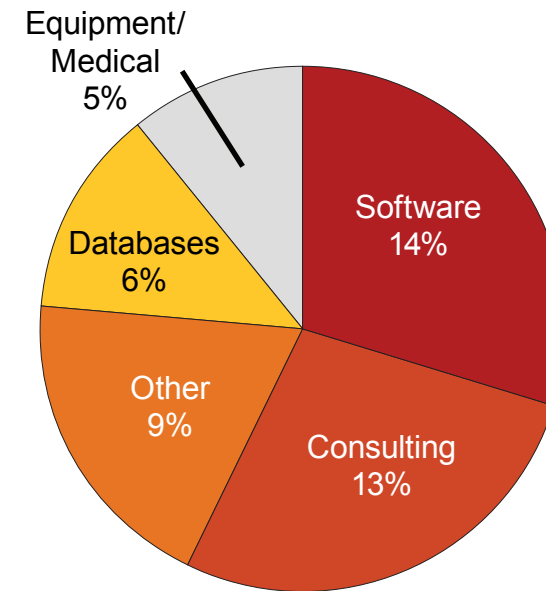


The Privacy Office ensures WCM complies with state and federal privacy standards, such as HIPAA, and protects the confidentiality and integrity of sensitive information generated and distributed throughout the institution.

This year, we enabled better incident reporting to simplify how employees submit privacy concerns. We use this same system to track patient privacy inquiries, complaints and individual rights requests. Next year, we will offer more diverse training options.

FY23 GOALS >>

- Improve privacy awareness training across WCM during various events, like Data Privacy Week (January 24-28) and SMARTFest 2023.
- Conduct quarterly walk-throughs and develop annual refresher training for HIPAA.
- Develop processes for research privacy matters and FERPA incidents.



*53% of all other categories totaled 4% or less each

PRIVACY AGREEMENTS >>

ITS upgraded and streamlined WCM's vendor agreement process, eliminating a backlog. We release an improved Privacy Agreement Repository (PAR) platform which manages **nearly 500 Business Associate Agreements (BAA)**.

The chart at left shows our most common categories of vendor privacy agreements.



PATIENT RIGHTS >>

ITS refined several privacy policies and designed patient forms to protect patients' rights, such as authorization for audio or visual recording, consent for patient procedure experience, request to restrict PHI as well as accounting of PHI disclosures, and a request for confidential communications of PHI.



Weill Cornell Medicine

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