PEPFAR

Technical Assistance Platform

Informatics for Leaders: Building an Informatics-Savvy Organization 101

2021

Agenda

THIS SLIDE FOR WORKSHOP FORMAT, REMOVE AS NEEDED

TOPIC	METHOD	DURATION
Introduction, Purpose, Learning Objectives,	Interactive Presentation	10 minutes
Part 1: Current state of health informatics	Presentation	30 minutes
Priority Challenges	Large Group Discussion	20 minutes
Part 2: The Informatics-Savvy Organization	Presentation Video	20 minutes 5 minutes
Knowledge Check	Quiz	10 minutes
Conclusion	Evaluation, Remarks	10 minutes

PEPFAR TAP

Purpose

To provide leadership with the foundational knowledge needed to understand:

- What is meant by health informatics.
- The current state of public health informatics related to the digital revolution.
- How leaders can apply the informatics-savvy organization framework to relieve information related challenges.
- When to use the Informatics-Savvy Organization Self-assessment Tool.
- Where to go from assessment to become an Informatics-savvy Organization.

Learning Objectives

By the end of this training, participants will be able to explain:

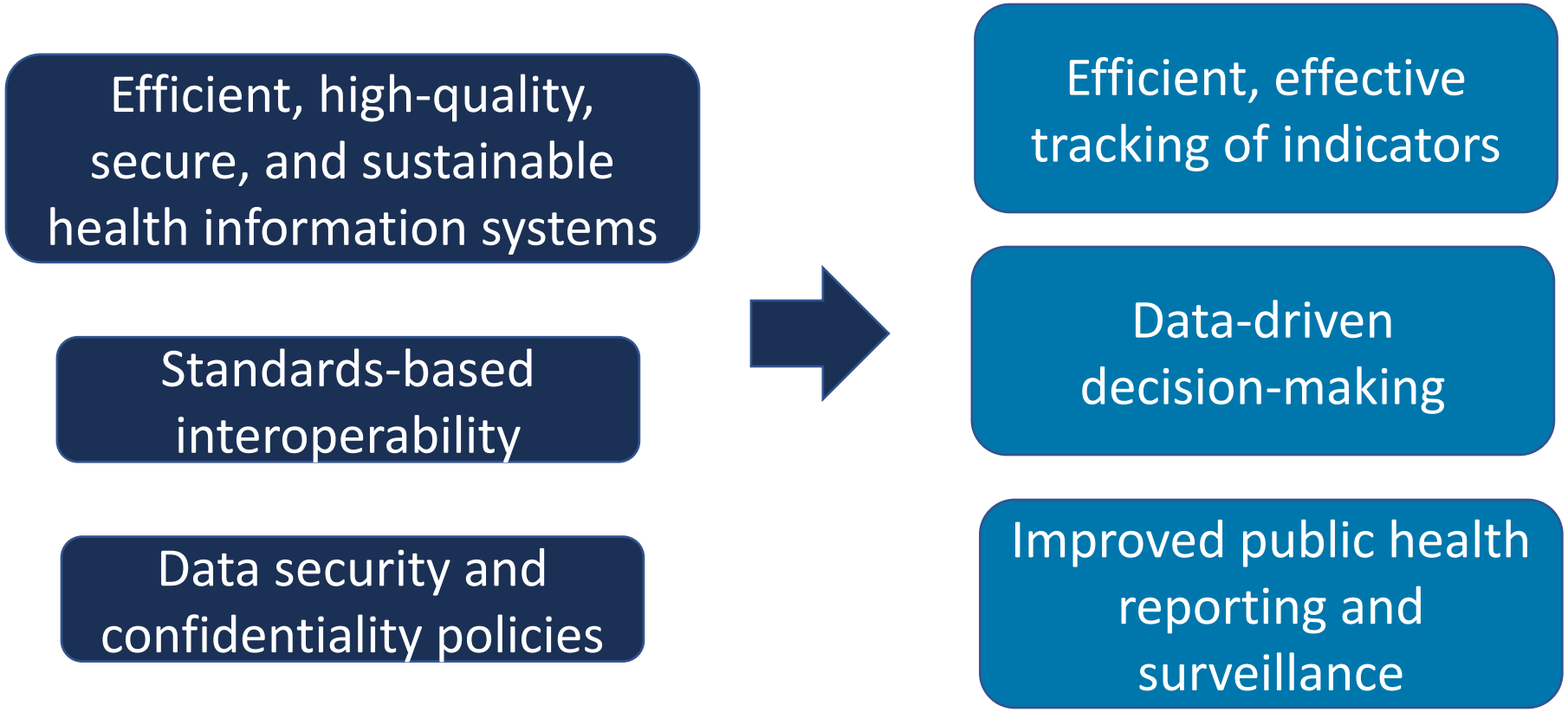
- The current state of public health leadership capacity for informatics.
- How informatics can support strategic decision-making in public health.
- How the informatics-savvy framework supports improved public health informatics outputs.
- The role and requirements of an informatics-savvy leader.

The Current State of Health Informatics

Informatics for Leaders: Building an Informatics-Savvy Organization 101

The Current State of Health Informatics

Data and information are the lifeblood and currency of public health.



Public Health Leadership Capacity

Self-assessment for informatics-related responsibilities:

- Preparedness
- Challenges
- Capacities

Overall:

Leaders responded they do not have the training and resources to be effective in their role.

Public Health Leadership Opportunities

75%

Reported poor, fair, or average self-rated core capabilities to perform public health informatics (PHI) leadership and management responsibilities

Public Health Leadership Opportunities

- Understanding what informatics is.
- Understanding how informatics can be leveraged to turn data into information for strategic decision-making.
- Applying a standardized framework for building, leading, and maintaining effective informatics programs.
- Understanding the country leader's role and requirements in creating, leading, and managing an informatics-savvy organization.

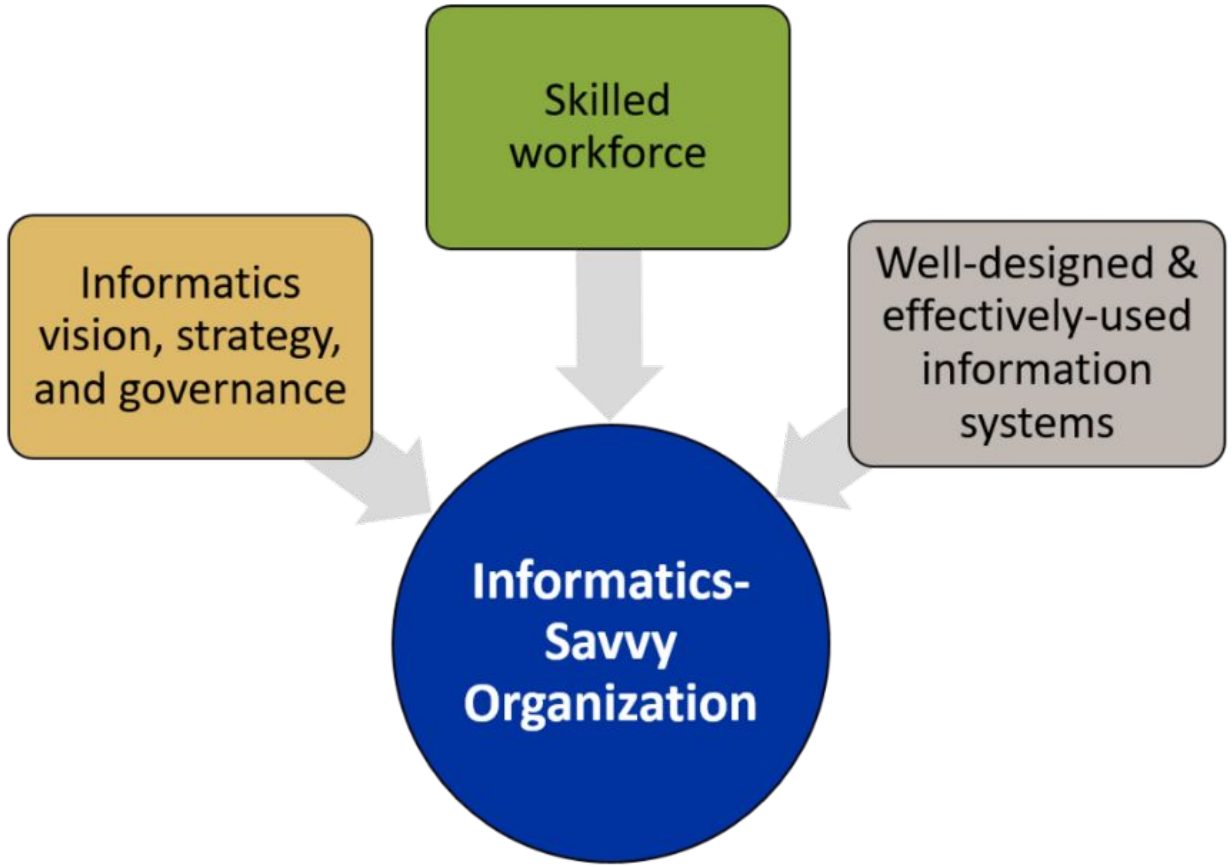
This training, *Building an Informatics-savvy Organization for Leaders 101*, was designed in direct response to these opportunities.

Informatics-Savvy Organization: Summary

Informatics-savvy organizations

apply a standardized "best-practices" program framework to

planning, developing, implementing, and maintaining informatics systems and programs.



Informatics-savvy Leader Role and Requirements

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CDC country leadership are:

- eyes and ears on the ground
- advisory focal point for ministries of health
- implementers of United States public health programs abroad.

CDC country leadership are responsible for:

- Designing and implementing the vision, strategy, and governance practices required to support country and community public health programs
- Allocating millions of dollars to country and community programs

Data use must be optimized to make decisions that improve public health outcomes.

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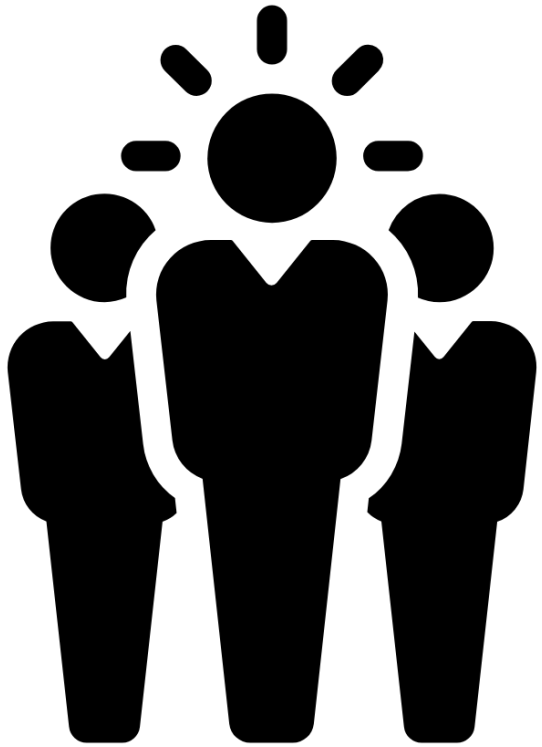
Informatics-savvy Leader Role and Requirements



Articulating and enabling the vision, strategy, and governance practices

Stewardship of millions of dollars

Using data optimally to make decisions that improve public health outcomes

Background: PEPFAR Requirements

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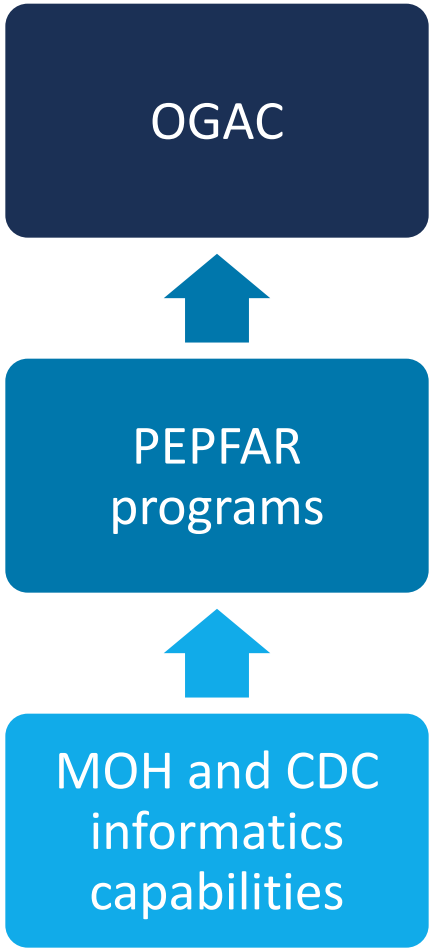

Informatics helps leaders:

- Know the health realities of the country
- Track progress towards 95-95-95 targets
- Make data-driven decision for program improvement

EMR, LIS, SIMS, MER

Background: Data Requirements

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ROUTINE DATA SYSTEMS

- Electronic Medical Record systems (EMR)
- Laboratory Information Systems (LIS)
- Site Improvement through Monitoring System (SIMS)
- Monitoring, Evaluation, and Reporting data (MER)

…and many more

MONITORING AND DATA-DRIVEN DECISION-MAKING

- Tracking 95-95-95 targets
- Program improvement
- Patient care decisions
- National-level planning and investment
- Coordination with funding-partner programs

Background: PEPFAR Requirements

Strategic investment made by PEPFAR in informatics includes support for :

- Data governance policies
- Workforce capacity building
- Information and communication technologies
- Data system development

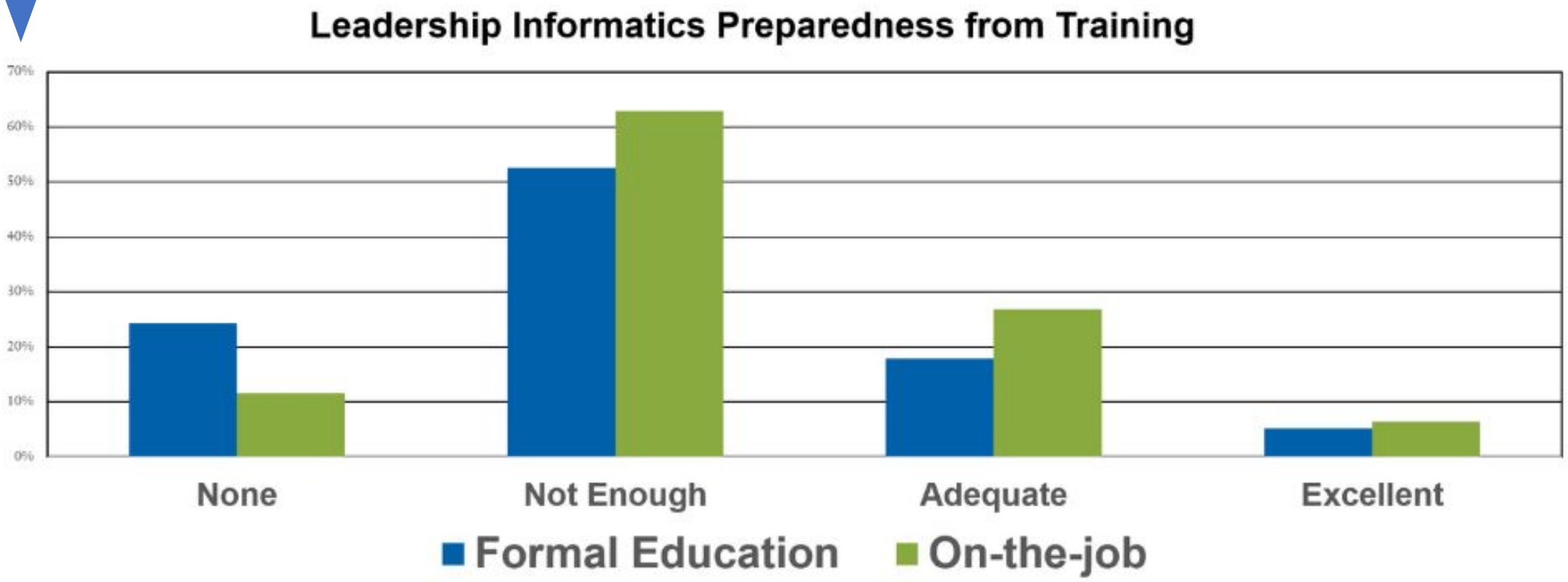
The informatics-savvy framework allows country leaders to optimize such investments.

PEPFAR Realities

- Absence of a standard informatics planning framework leading to ad hoc practices.
- Limited workforce capacity to generate, manage, and use information effectively.
- Siloed, poorly designed, non-standardized and unsustainable information systems.
- Public health offices are not able to keep up with intensive data collection and reporting demands from front line public health workers.
- Cyber-security and privacy concerns with personal identifying information (PII).

PHI Preparedness from Training

70%



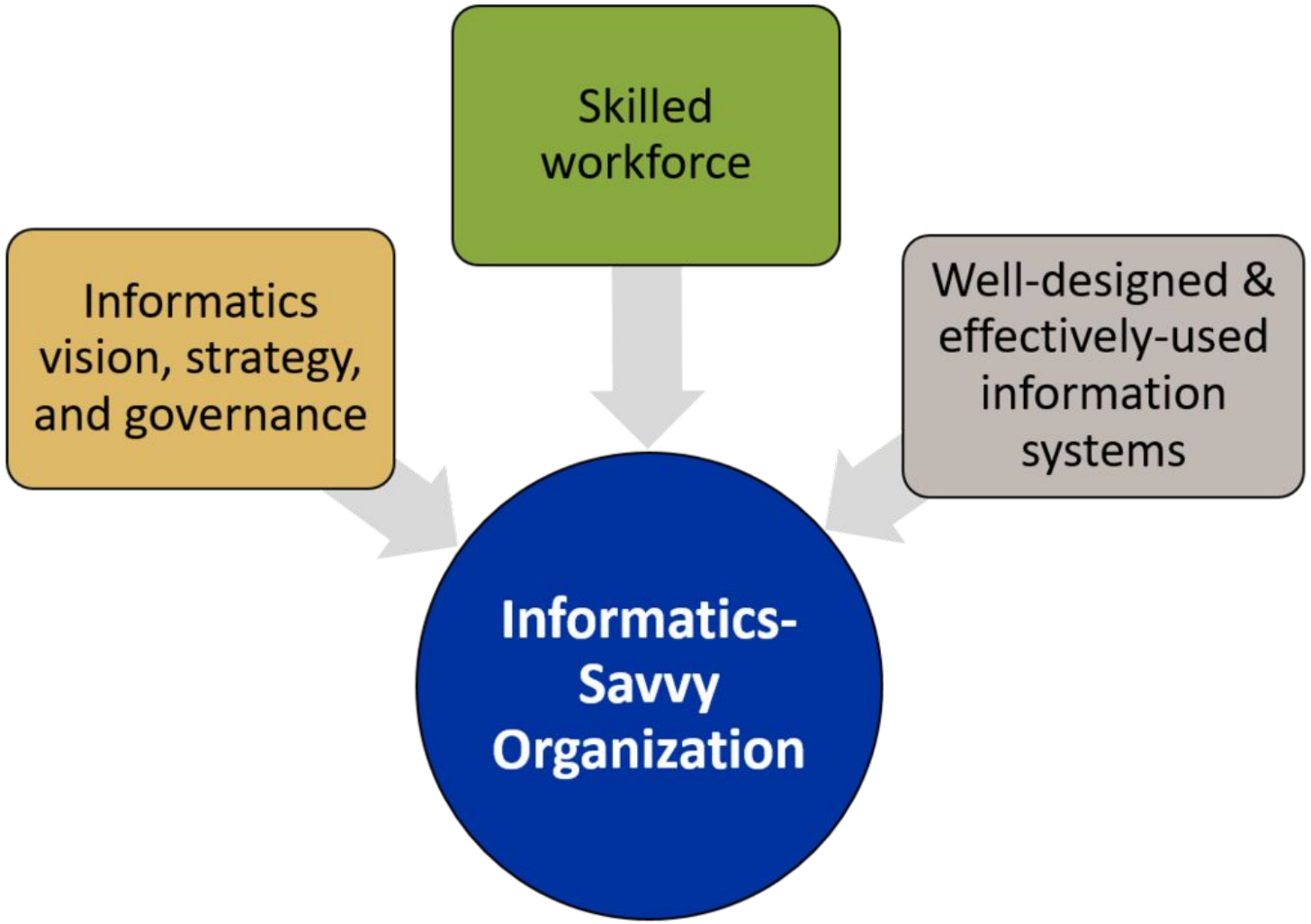
Core Capabilities

	Leadership Self-rated Level of Challenge in Addressing PHI Responsibilities	Total % Challenging + Very Challenging
1	Increasing health care workers' use of information systems	**66%**
2	Working with other development partners to ensure alignment with PEPFAR's investments in eHealth and IS to gain efficiencies	**66%**
3	Managing vendors' interests to have their own information systems	**66%**
4	Managing CDC programs' interests to have their own information systems	**57%**
5	Keeping up with and incorporating new data in your public health practice	**56%**
6	Leveraging exponentially growing and changing information and communication technologies in your public health practice	**54%**
7	Finding informatics resources to help you with your work	**53%**
8	Managing implementing partners' interests to have their own information systems	**29%**

Level of Challenge

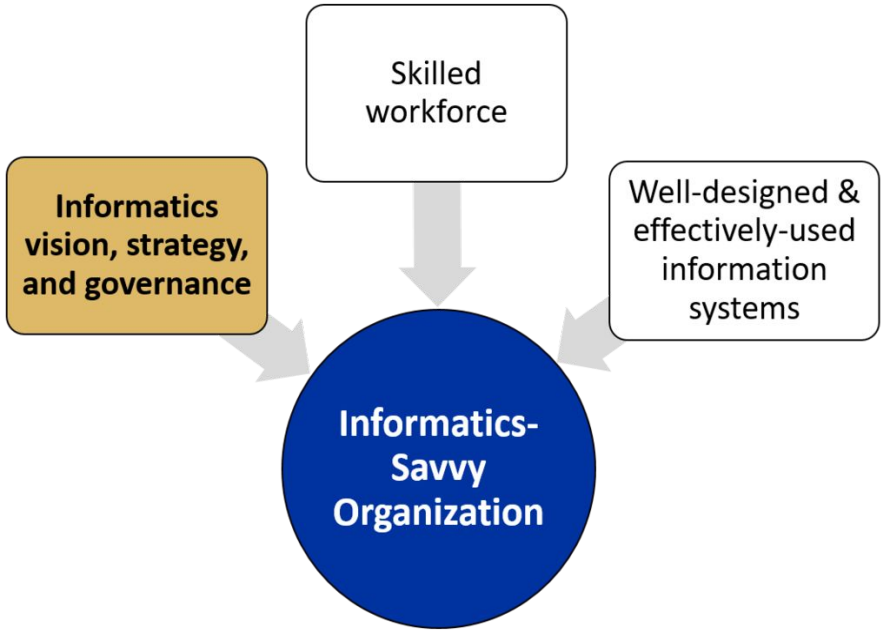
	Leadership Self-rated Capabilities to Perform PHI Leadership and Management Responsibilities	Total % Good or Excellent
1	Guide the development of an informatics workforce strategy to ensure that you can meet the needs of your Country Office, Branch, or Unit.	**14%**
2	Guide the development of standard-based and cost-effective information systems that meet the needs of your Country Office, Branch, or Unit.	**21%**
3	Lead the creation of an informatics vision, strategy, and governance for the Country Office, or Branch, or Unit you direct.	**21%**
4	Ask the right question to ensure resources allocated to informatics projects are efficiently and effectively utilized	**25%**
5	Ensure investments in informatics projects are monitored and evaluated for usability and effectiveness.	**26%**
6	Ensure that your Country Office, Branch, or Unit has the necessary policies and procedures to protect patient and data privacy, confidentiality and security.	**33%**
7	Engage in national-level strategic discussions about eHealth.	**37%**

The Informatics-Savvy Organization



Core Capability: Informatics Vision, Strategy, and Governance

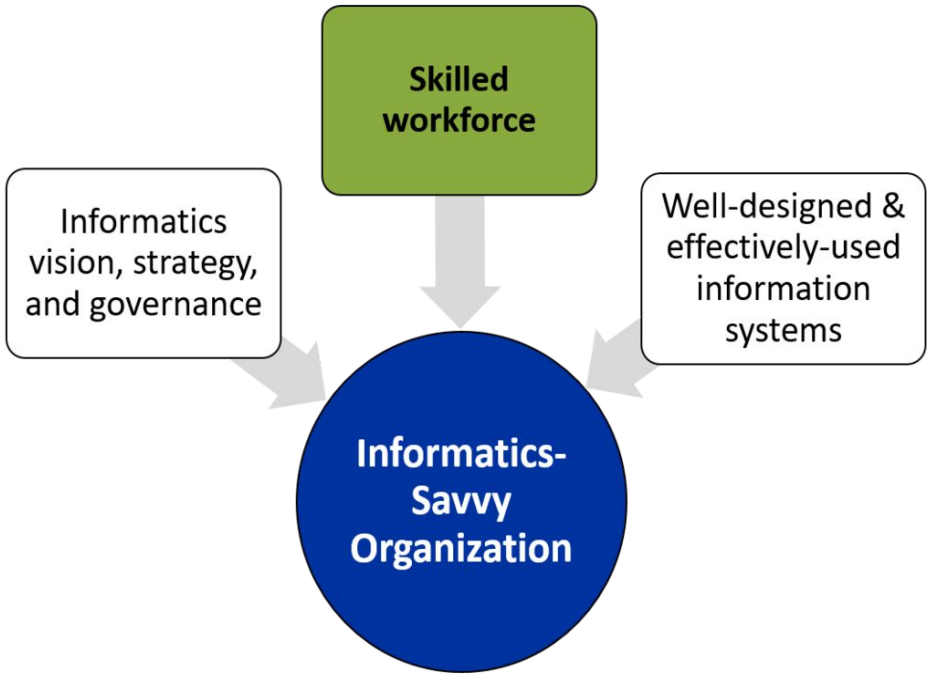
A well-articulated informatics vision, strategies, and metrics for how the agency obtains and uses information include:



- A well-articulated and measurable informatics vision
- Organization-wide approach to standards and interoperability
- Policies to ensure privacy, confidentiality, and security
- Defined governance and leadership structure.
- Effective collaborations

Core Capability: A Skilled Workforce

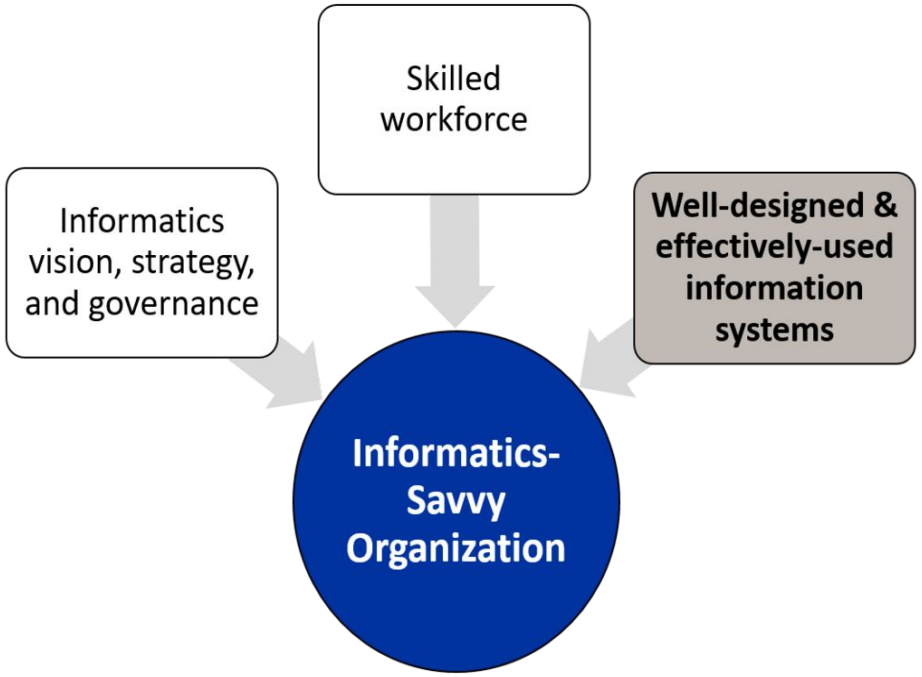
A skilled workforce consists of:



- Trained informaticians through competency-based academic program or continuing education
- Training strategies for improving informatics knowledge and skills
- Staff within the organization who understand and apply informatics to their practice

Core Capability: Well-Designed Information Systems

Well-designed and effectively-used information systems that:



- Effectively meet the information needs, workflows, and practices of staff and programs.
- Are developed using sound project management principles and methods.
- Are based on rigorously defined requirements and user-centered design.
- Use globally recognized vocabulary, messaging, and other standards for interoperability with internal and external systems.
- Effectively assure data integrity, and adhere to security protocols and procedures.
- Are evaluated with end user metrics.

Current Realities and Implications

Limited workforce capacity to generate, manage, and use data	Great variability in reliability, completeness, and timeliness of data
Intensive data collection and reporting demands on frontline health workers	Huge quantities of data being collected but not leveraged
Systems developed without standard or clear architecture	Poorly-designed systems that don't share information
Widespread absence of data governance policies	Concerns regarding privacy, confidentiality, and security of personal identifying information

The Informatics-Savvy Organization

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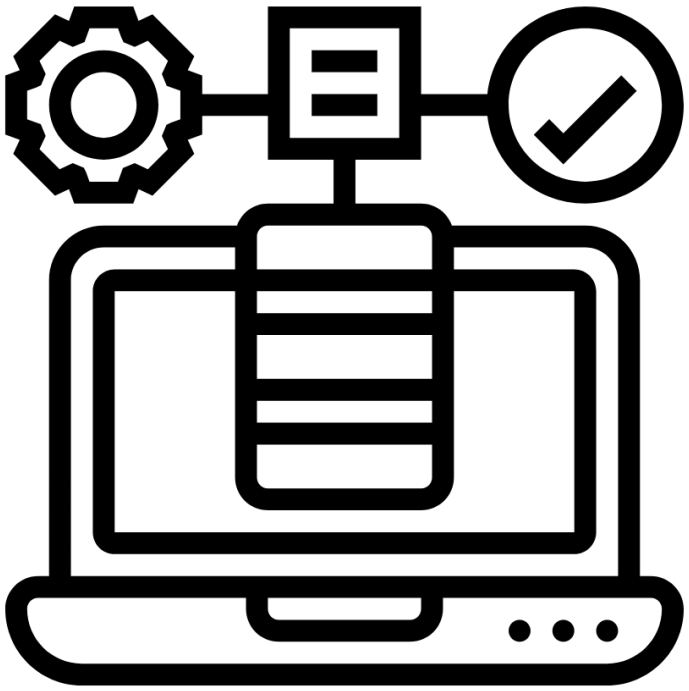
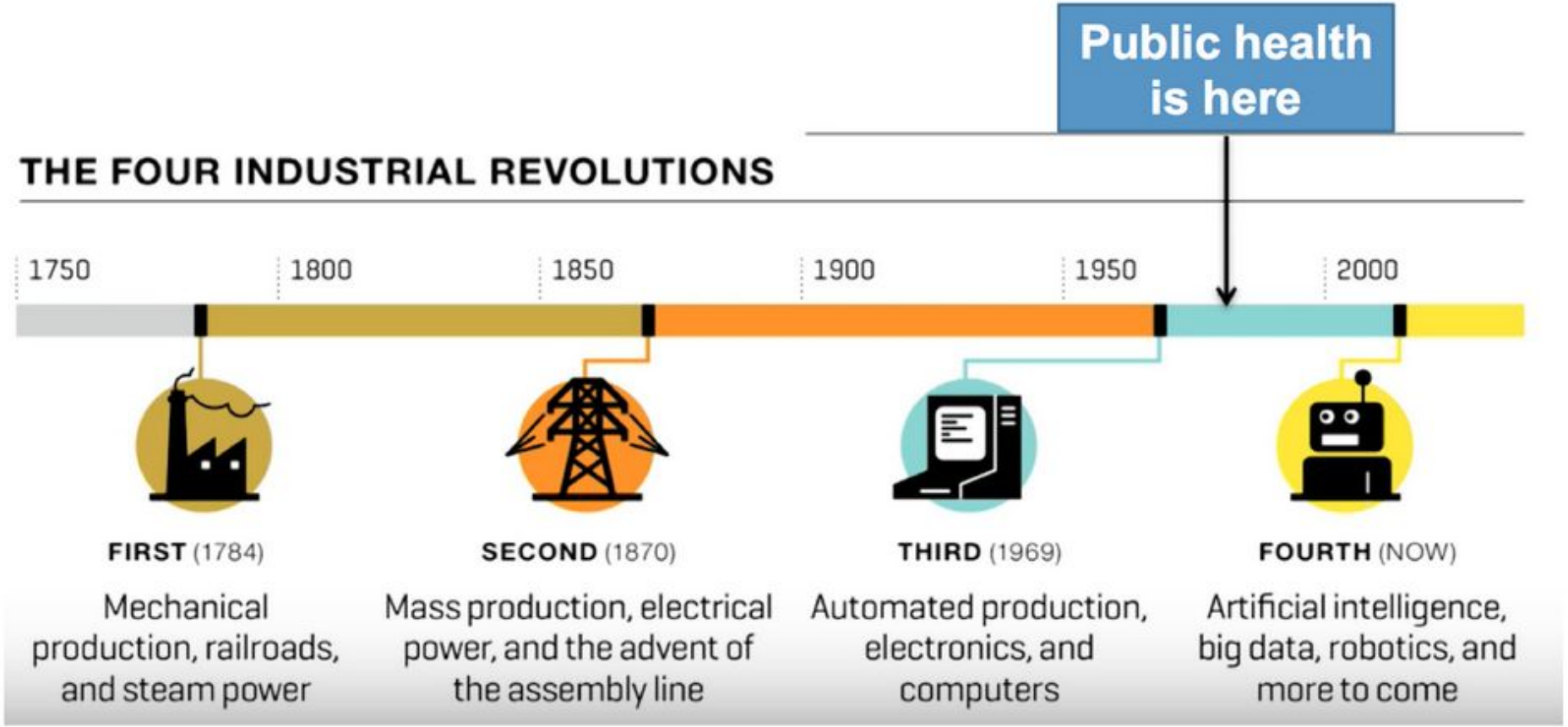
PEPFAR TAP

Digital Revolution



- Developing since the middle of the 20th century
- Blurs lines between physical, digital, and biological technologies
- Disrupted almost every industry in every country

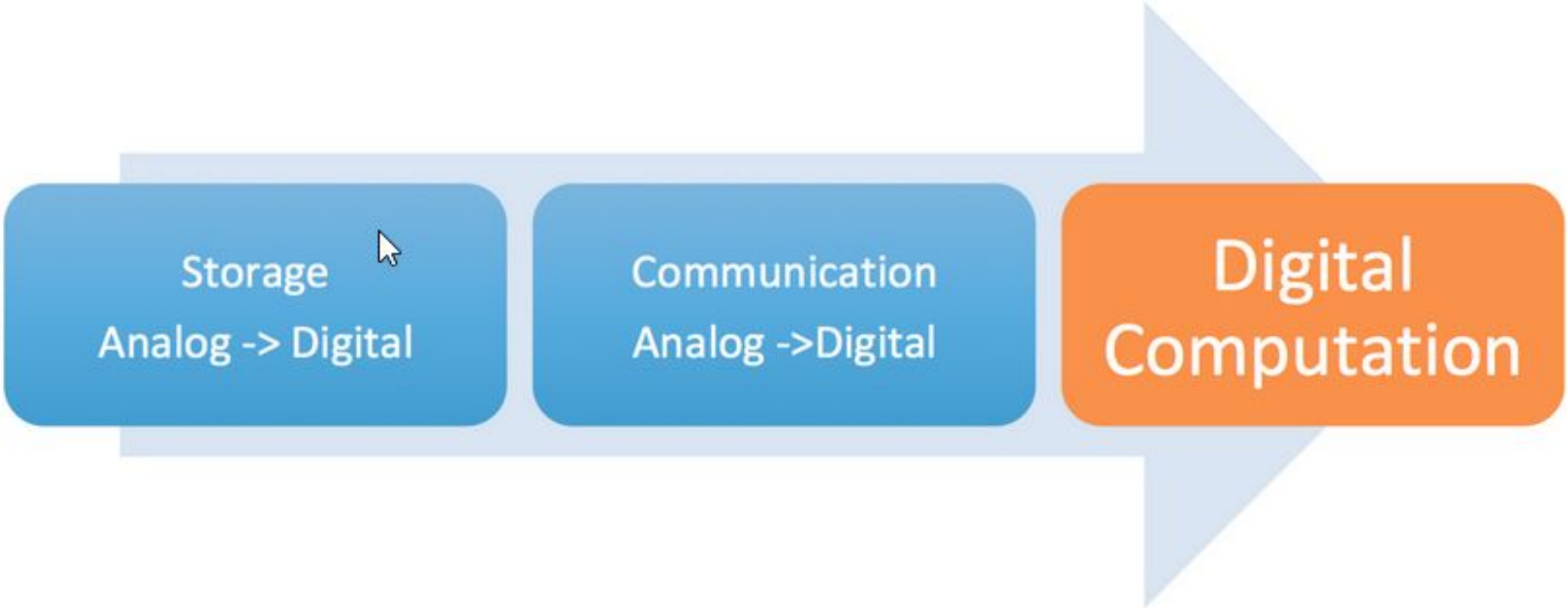
Digital Revolution Timeline



Source: Eric Topol, M.D., Gary and Mary West Endowed Chair of Innovative Medicine, Director of Director, Scripps Translational Science Institute, Department of Molecular Medicine

Digital Revolution Timeline

From Analog to Digital



Digital Revolution Timeline

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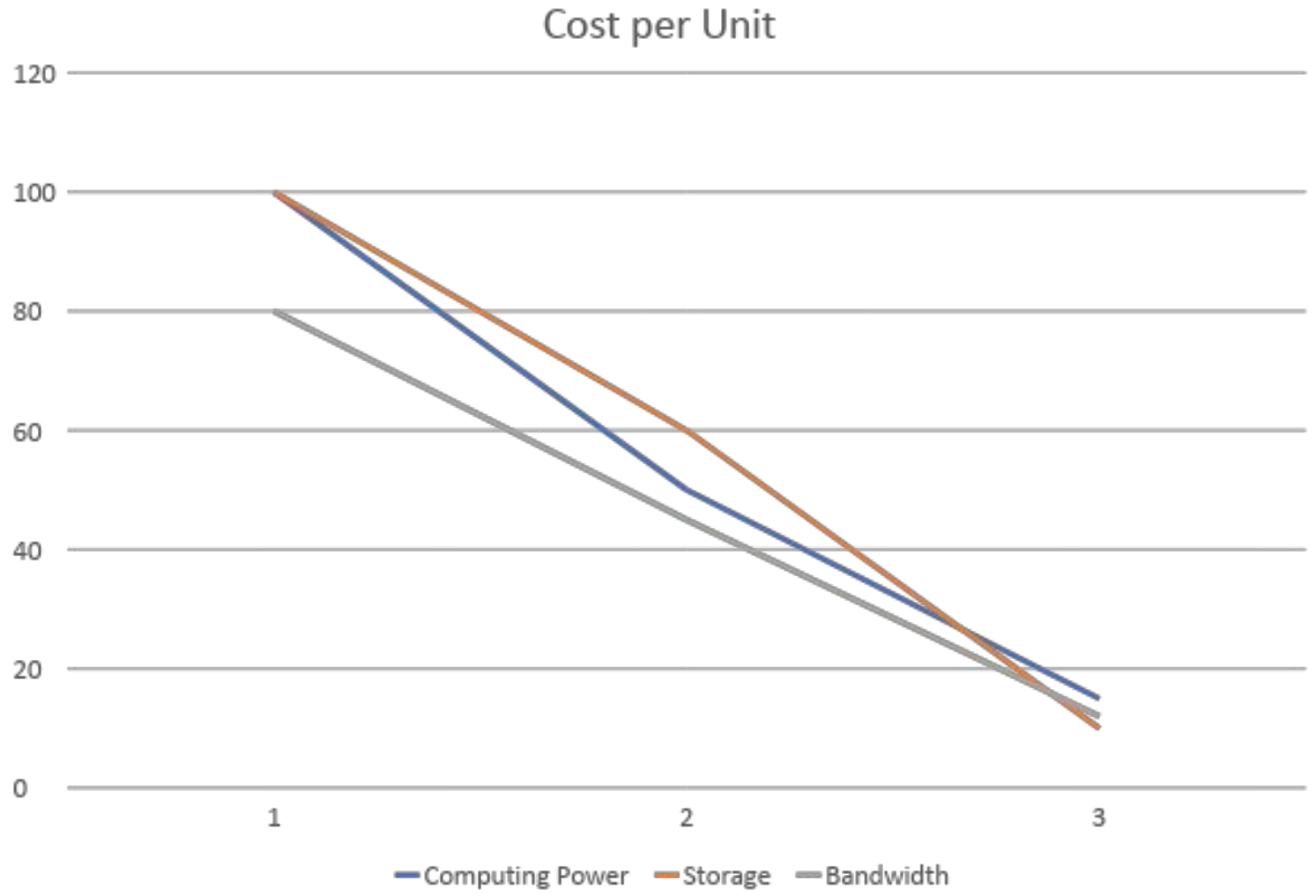
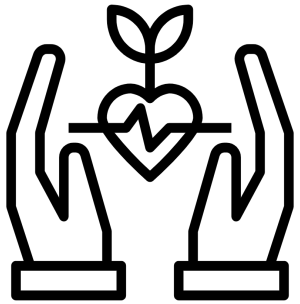


Impact of Digital Revolution on Public Health

It is harder than ever to turn data into usable information

Public health science + ISO approach = appropriately leveraged data

Transform public health practice!



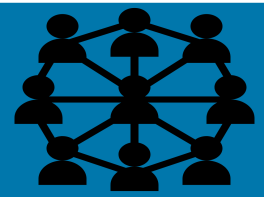
Improve health outcomes!

Promises of the Digital Revolution for Public Health

Improve healthcare quality and outcomes

Improve the completeness, timeliness, and accuracy of data

Improve patient safety by reducing errors



Empower individuals and communities to be informed consumers of health information and services

Reduce healthcare costs, duplication, and waste

Decrease the time it takes from disease detection to response

Hasten translation of public health surveillance and research findings into practice and policy

What is Informatics? A Definition

- "[T]he systematic application of information and computer science and technology to public health practice, research, and learning."*
- Public health informatics includes the *conceptualization, design, development, deployment, refinement, maintenance, and evaluation* of communication, surveillance, and information systems relevant to public health*
- A core public health science alongside epidemiology, surveillance, and laboratory sciences
- Informatics is not IT; it is the bridge that mediates between leadership, program staff, and IT

*Yasnoff WA, O'Carroll PW, Koo D, Linkins RW, Kilbourne EM. Public health informatics: improving and transforming public health in the information age. J Public Health Manag Pract. 2000 Nov;6(6):67-75.

Opportunities of Public Health Informatics

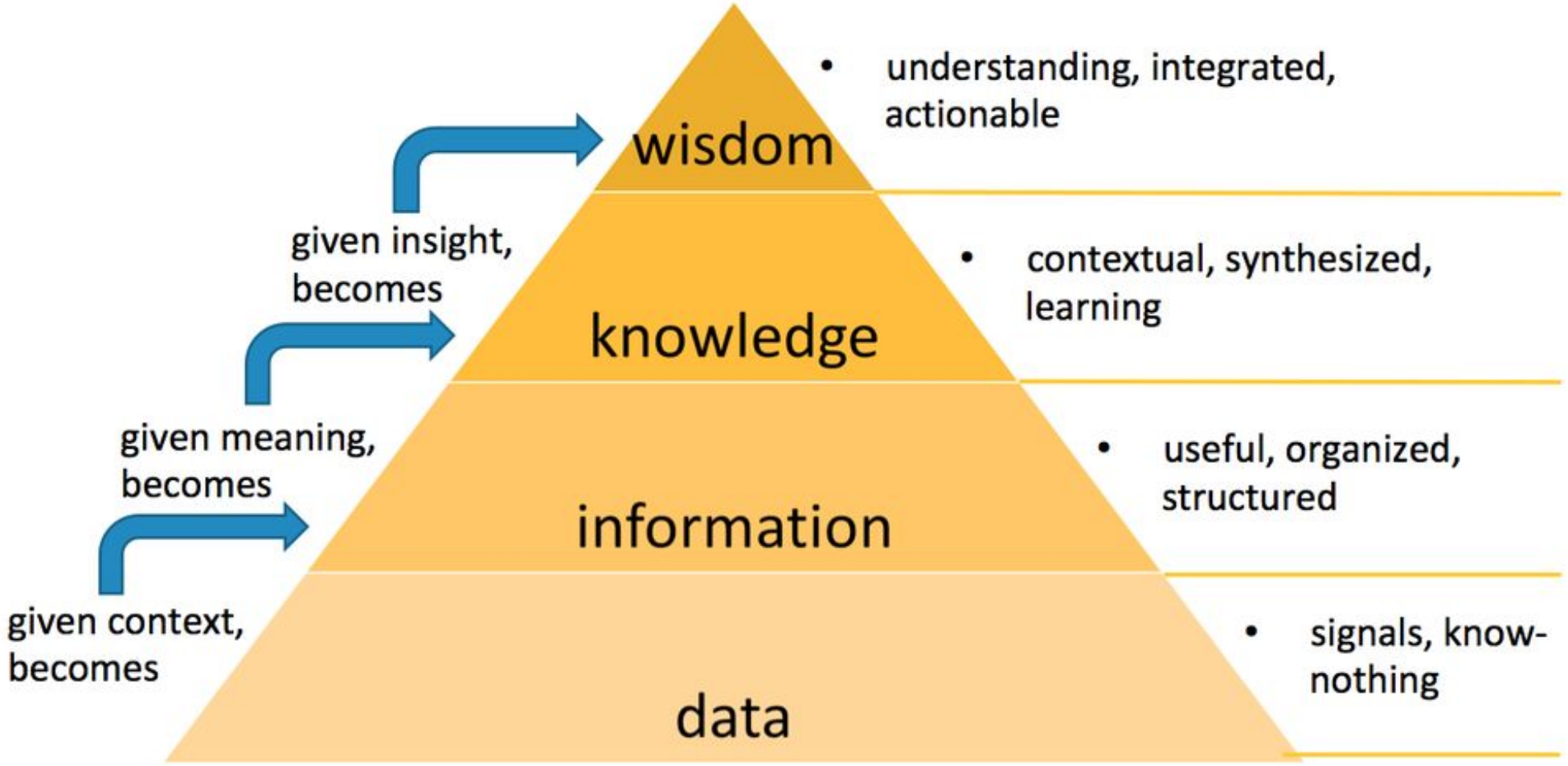
90% of the data in the world today created in the last two years!

It is impossible to unlock the data's full potential without the power of informatics.

One doctor can read a medical journal maybe twice a month. Cortana can read every cancer study published in history before noon and by 3 p.m. is making patient-specific recommendations on care plans and improving outcomes.

-- CEO John Damgaard, MatrixCare

Informatics: From Data to Wisdom



Applications of Public Health Informatics

Lead creation of vision and strategic direction for public health informatics

Ensure use of informatics standards

Ensure IT operations are managed effectively to support public health programs

To leverage informatics for critical decisions, leaders must:

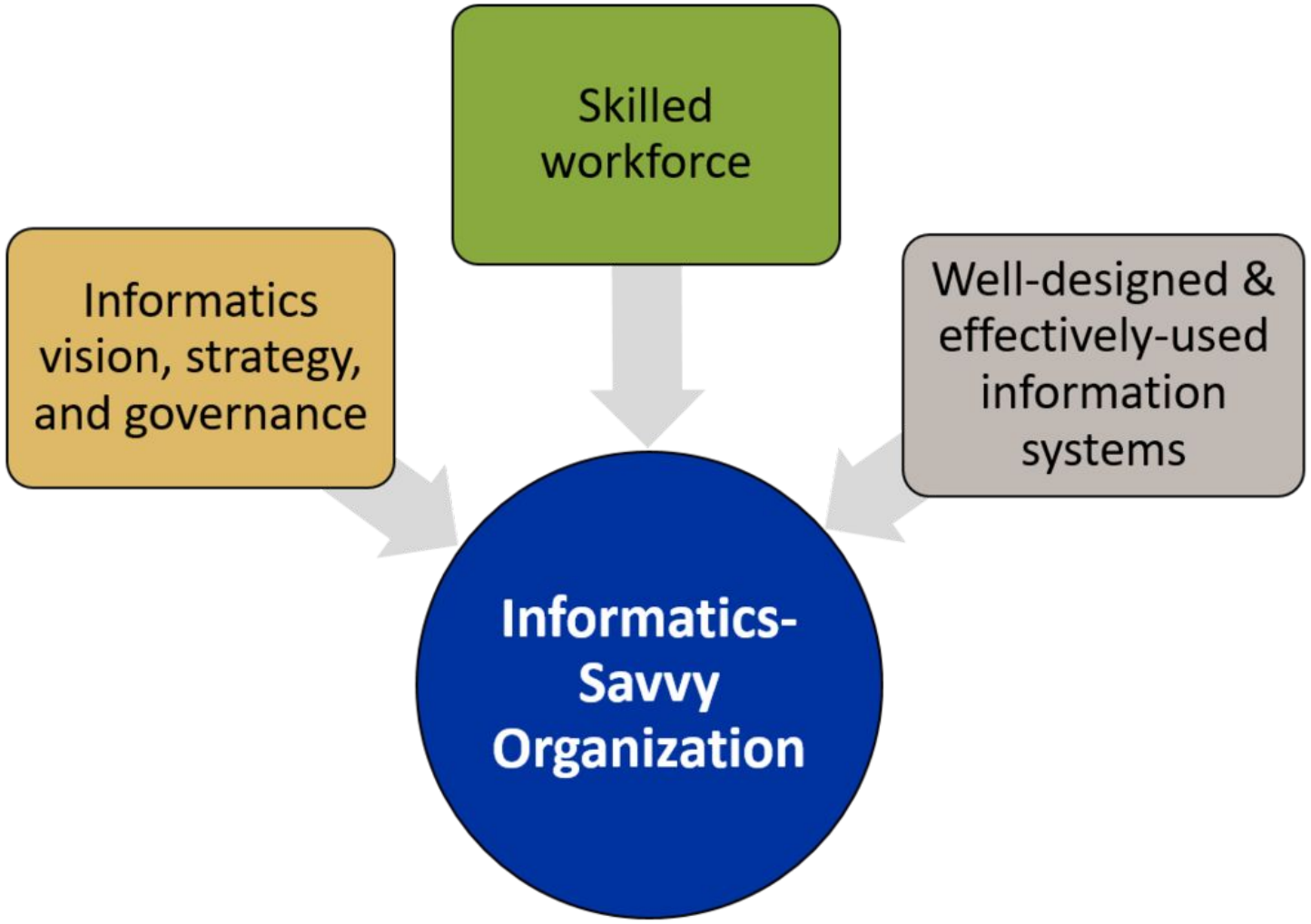
Develop solutions that ensure confidentiality, security, and integrity while maximizing availability of information for public health

Develop training strategies for improving informatics knowledge and skills for informatics workforce

Centers for Disease Control and Prevention (CDC). Public health informatics competencies. Atlanta, GA: US Department of Health and Human Services, CDC; 2009. http://www.cdc.gov/informaticscompetencies/.

The Informatics-Savvy Organization

An informatics-savvy organization is one that can obtain, effectively use, and securely exchange information to improve public health practice and population health outcomes.



Vision, strategy, and governance

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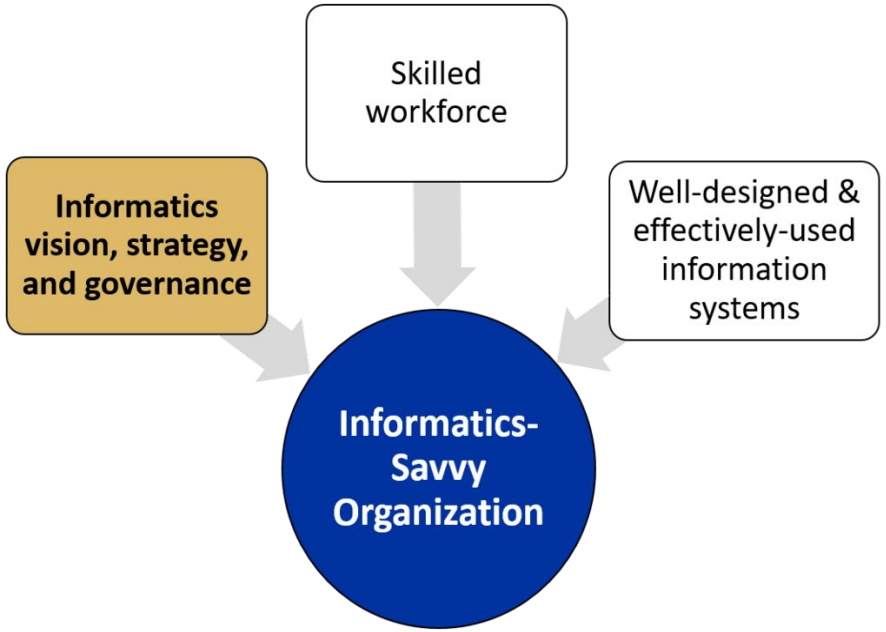

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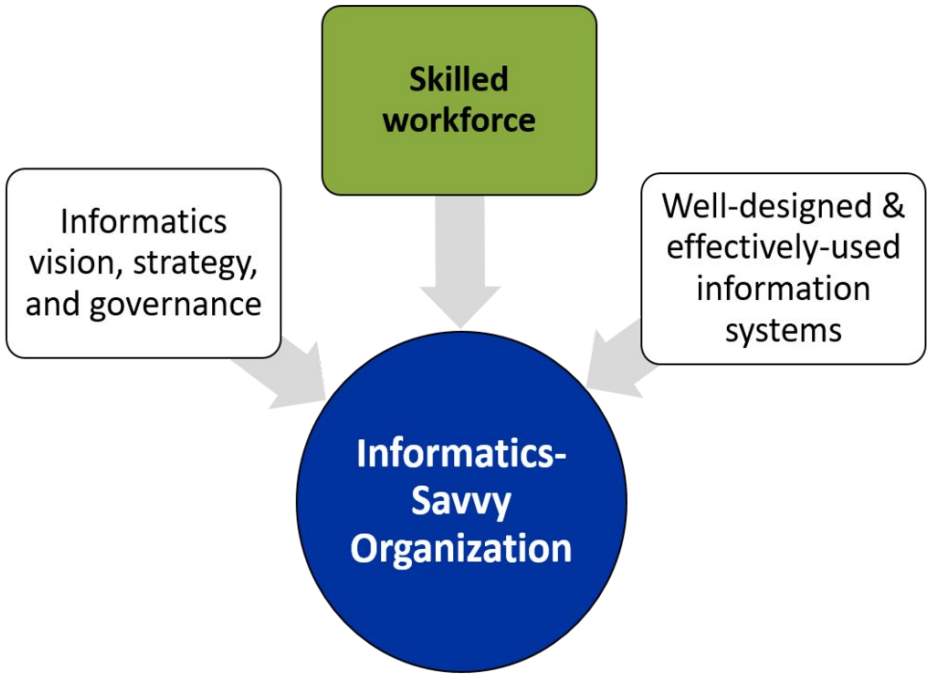

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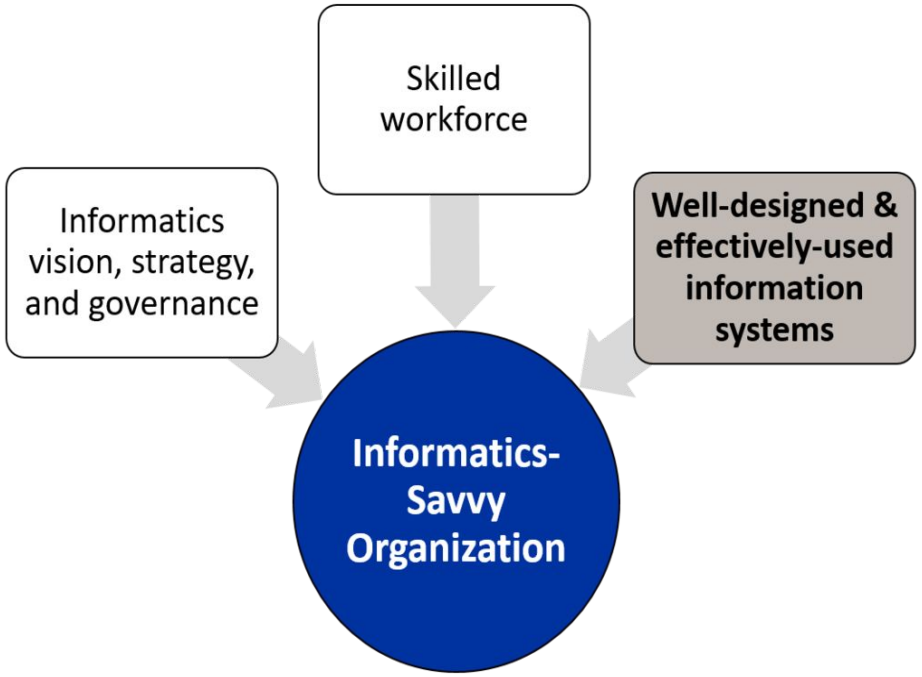

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Case Study

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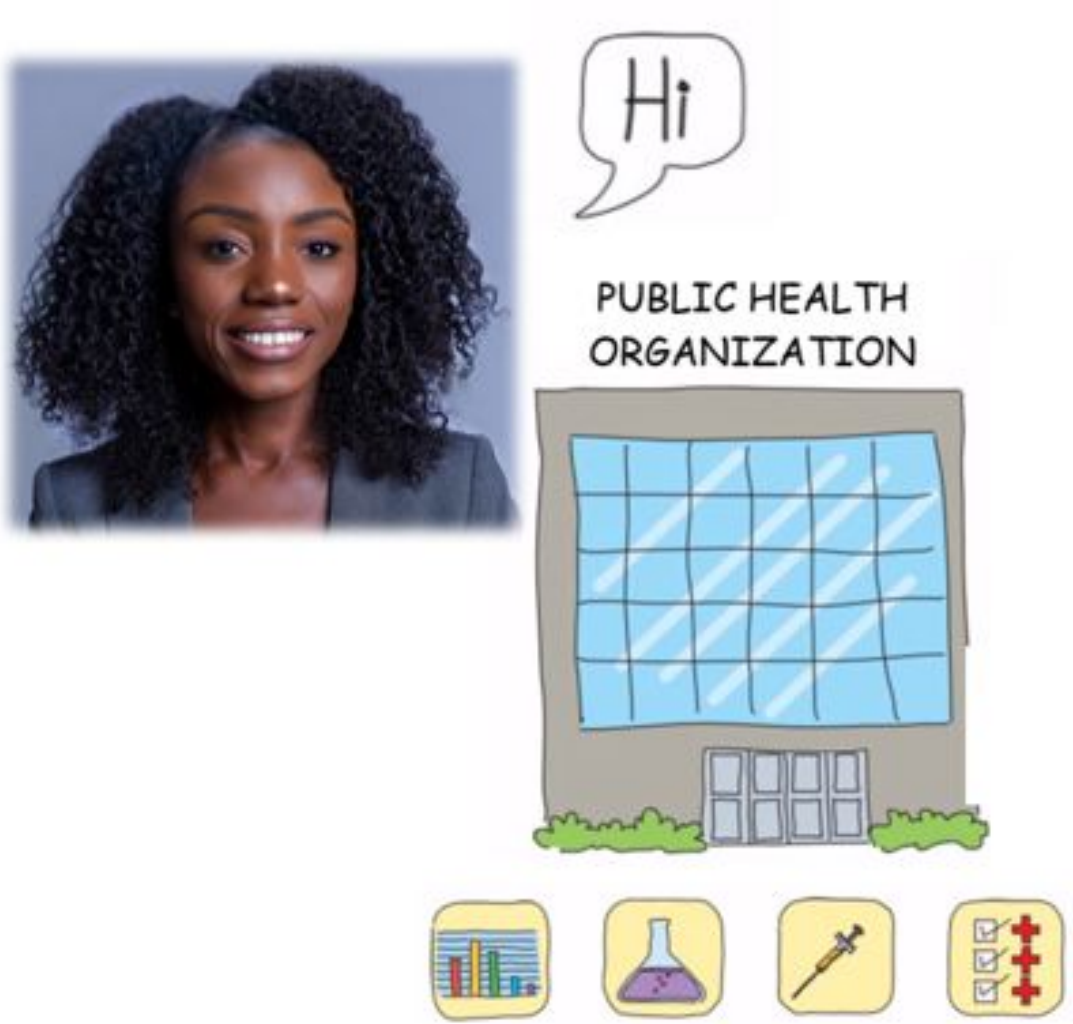
TAP

Meet Esther



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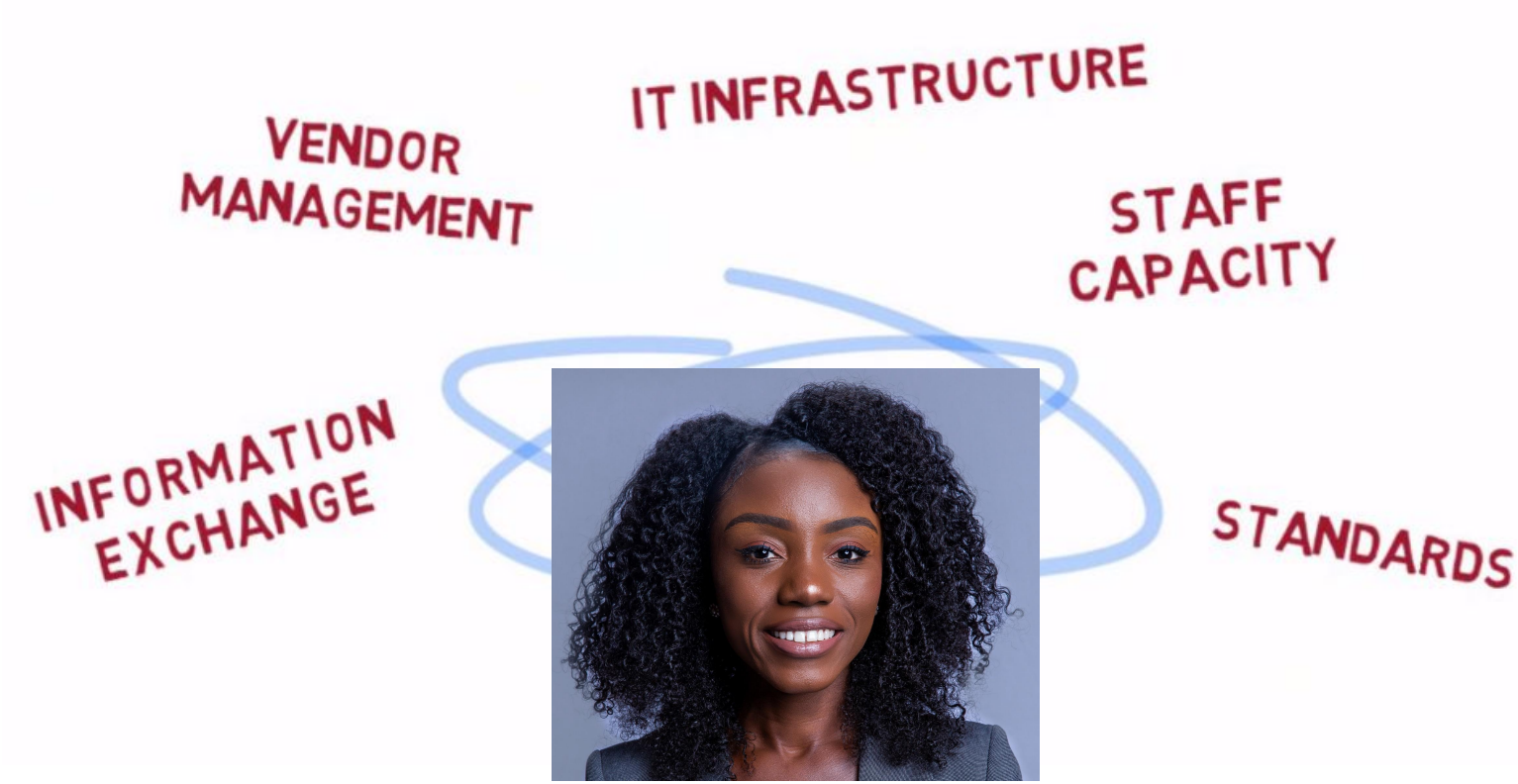
Problem Statement



Possible first steps

- Use the ISO Self-Assessment tool and related resources with her team.

- Meet with her staff responsible for maintaining the information systems to find out the current state of the country's informatics program from their perspective.

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Issues in the Program

Issue #1: The informatics vision, strategy, or governance documents are non-existent, leaving the staff with no real framework for evaluating, developing, and managing the program.

Issue #2: The informatics workforce comprises mainly IT staff, who lack specific informatics training. There is no leadership per se; it seems that informatics decision-making responsibilities were delegated to the staff, who don't have the background to address them.

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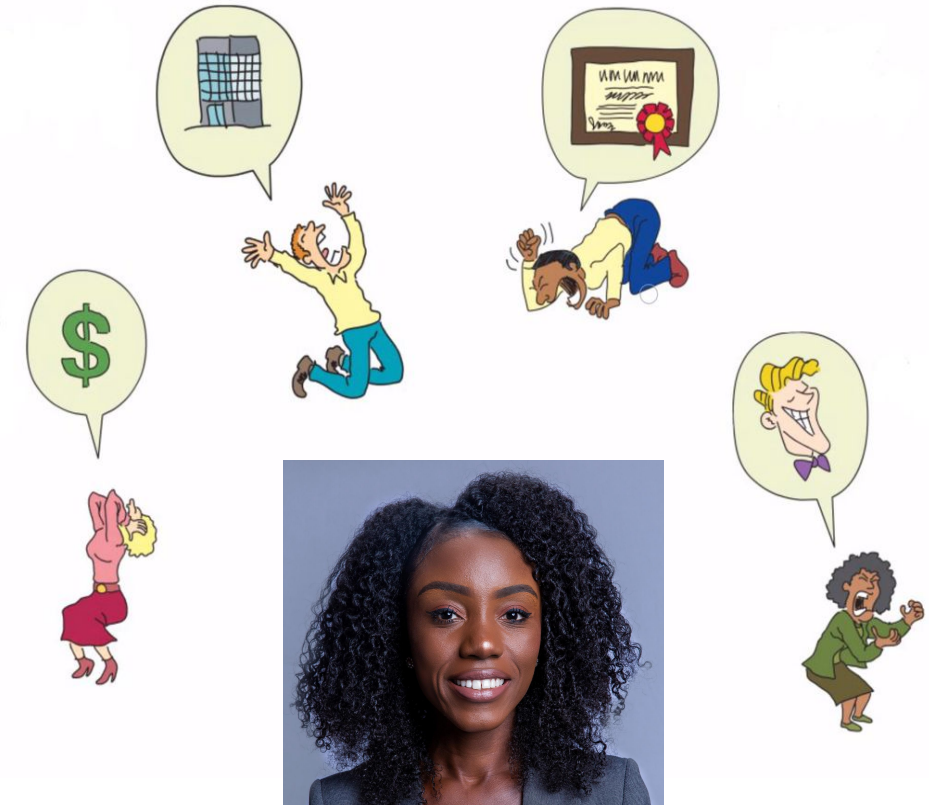
Issues in the Program

Issue #3: The information systems are not effectively linked and do not share data across other systems. Information is not being effectively shared between leadership, staff and other public health organizations.



- Issue #4: The staff are frustrated.

Why use the Informatics Savvy Organization Self-assessment Tool?

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What does Esther need to do to thoroughly and objectively assess the current state of her informatics program?

A. Bring her multidisciplinary team together to use the Informatics-savvy Organization Self-assessment Tool. Use information collected with the self-assessment tool to inform the country office's vision and strategy within an informatics-savvy organization framework.

B. Facilitate a focus group with IT, ministry of health stakeholders and PEPFAR representatives to create a matrix of PEPFAR reporting requirements and measurable methods for meeting them.

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What does Esther need to do to thoroughly and objectively assess the current state of her informatics program?

Answer:

A. Bring her multidisciplinary team together to use the Informatics-savvy Organization Self-assessment Tool. Use information collected with the self-assessment tool to inform the country office's vision and strategy within an informatics-savvy organization framework.

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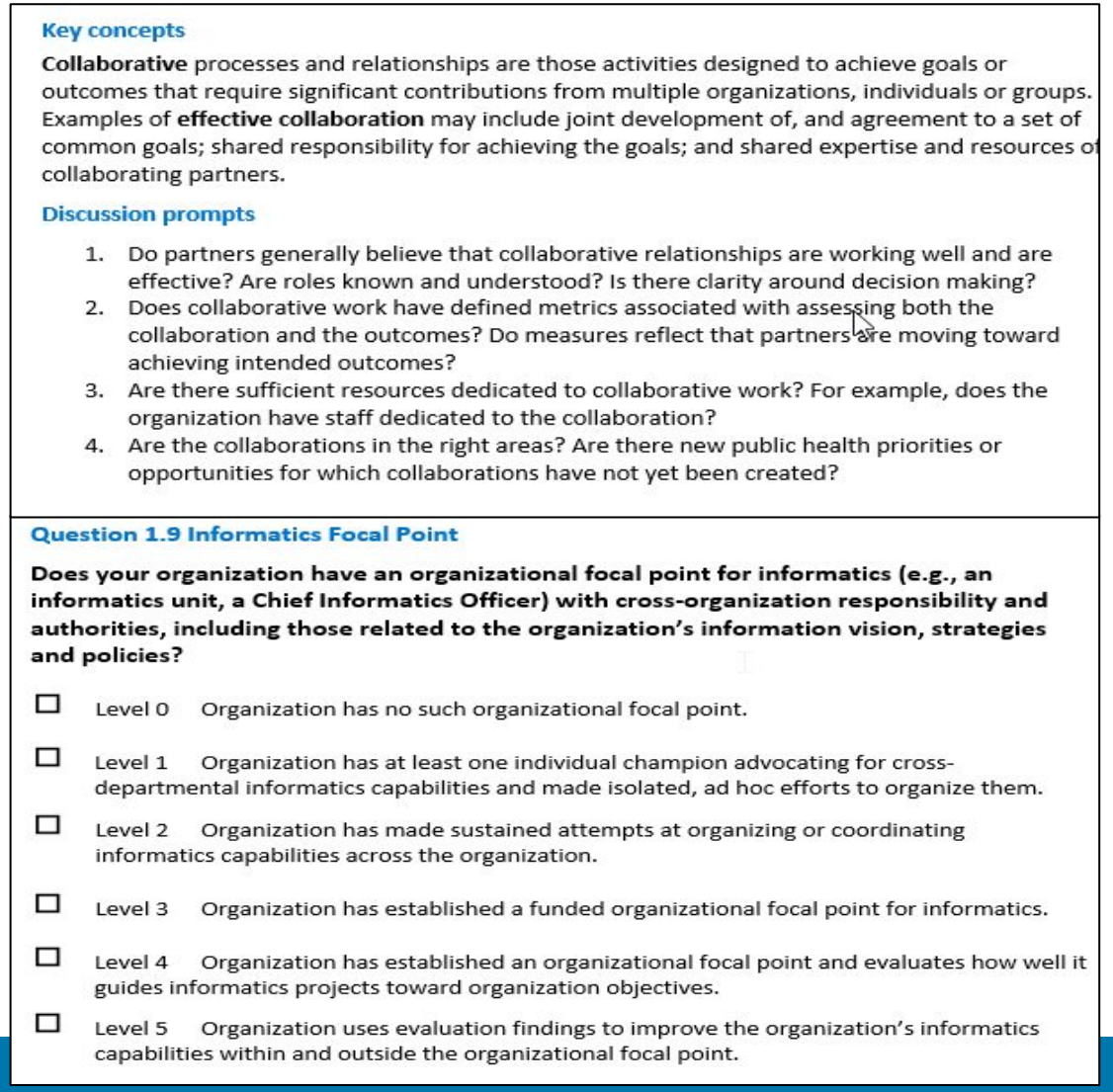
Informatics-Savvy Organization Self-Assessment Tool

The Informatics-savvy organization self-assessment tool allows you to collect objective information about your country's or agency's informatics program capacity.



Key concepts

Collaborative processes and relationships are those activities designed to achieve goals or outcomes that require significant contributions from multiple organizations, individuals or groups. Examples of **effective collaboration** may include joint development of, and agreement to a set of common goals; shared responsibility for achieving the goals; and shared expertise and resources of collaborating partners.

Discussion prompts

1. Do partners generally believe that collaborative relationships are working well and are effective? Are roles known and understood? Is there clarity around decision making?
2. Does collaborative work have defined metrics associated with assessing both the collaboration and the outcomes? Do measures reflect that partners are moving toward achieving intended outcomes?
3. Are there sufficient resources dedicated to collaborative work? For example, does the organization have staff dedicated to the collaboration?
4. Are the collaborations in the right areas? Are there new public health priorities or opportunities for which collaborations have not yet been created?

Question 1.9 Informatics Focal Point

Does your organization have an organizational focal point for informatics (e.g., an informatics unit, a Chief Informatics Officer) with cross-organization responsibility and authorities, including those related to the organization's information vision, strategies and policies?

- ☐ Level 0 Organization has no such organizational focal point.
- ☐ Level 1 Organization has at least one individual champion advocating for cross-departmental informatics capabilities and made isolated, ad hoc efforts to organize them.
- ☐ Level 2 Organization has made sustained attempts at organizing or coordinating informatics capabilities across the organization.
- ☐ Level 3 Organization has established a funded organizational focal point for informatics.
- ☐ Level 4 Organization has established an organizational focal point and evaluates how well it guides informatics projects toward organization objectives.
- ☐ Level 5 Organization uses evaluation findings to improve the organization's informatics capabilities within and outside the organizational focal point.

Informatics-Savvy Organization Self-Assessment Tool

WHAT

- Capability Maturity Model
- Objective, measurable criteria

WHY

- Assess organization's capacity
- Gain insight into challenges
- Map a path for progress

Table 1. Capability Maturity Model (CMM) Levels (adapted)[2]

CMM Level Name	*General Description*
0 - Absent	No capability is evident; Start from the beginning.
1 - Initial	No organized, systematic efforts to build informatics capacity, only ad hoc efforts and isolated, individual accomplishments.
2 - Managed	Some organized efforts begun or completed, but not systematically documented or institutionalized.
3 - Defined	Systematic, ongoing efforts underway, but no standardized method to measure progress or to ensure coordination.
4 - Measured	Systematic, ongoing efforts underway to measure progress and ensure coordination.
5 - Optimized	Systematic, ongoing efforts underway with quality improvement activities to align results with guiding vision, strategies and performance metrics.

Using the ISO SA

Esther brings her multidisciplinary team together, being certain to include staff from different branches including operations, program and strategic information.

Esther and her team complete the Informatics-savvy Organization Self-assessment Tool (ISO SA) and review the findings in a follow-up meeting later that week.

The findings identified strengths and opportunities in each informatics-savvy core capacity: Vision, strategy, and governance; skilled workforce; and information systems.

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Using the ISO SA

The ISO SA allows Esther and her team to use the Capability Maturity Model to rate various aspects of each core capability on a Likert scale, according to objective, measurable criteria.

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Esther's Findings

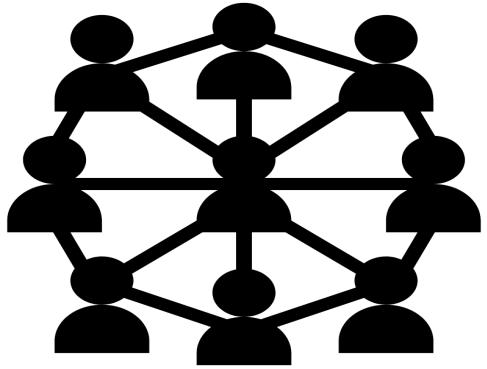
Capability	ISO SA Rating	ISO SA Rating detail
Vision & strategy	3- Defined	Informatics vision and strategy are defined, but have not been measured or optimized.
Governance process	2-Managed	The organization has made sustained attempts at governing information systems projects, but there is no standardized documentation, evaluation methods, or optimization plan in place.
Skilled Workforce	1-Initial	MOH has made initial, isolated ad hoc efforts to adopt informatics job classifications. Informatics training policies and practices exist, however, they are not known or rarely used. A few program-level users have informatics knowledge and skills.
Information systems (external)	2-Managed	A high level of effort is required to receive and process electronic messages from external partners.
Information systems (internal)	3 – Defined	MOH exchanges data internally, but some manual effort is required to process these data.

PEPFAR

Technical Assistance Platform

Informatics for Leaders Community of Practice (ILCoP)

- Acquire skills and competencies
- Understand how to leverage informatics
- Recognize the information and technological forces impacting public health practice
- Comprehend the leadership roles and path



- Appreciate available resources for continuing education
- Establish collaborations with peers
- Create an environment conducive to supporting staff
- Ask the right questions

Esther now has the information she needs to use the Informatics-savvy Organization Roadmap tool to create an effective and sustainable plan to improve her country's informatics capacity.

Esther and her team are well on their way to becoming an Informatics-savvy Organization!

PEPFAR Technical Assistance Platform

Questions?

Key Points

- Since the year 2000, the amount of data being collected has exploded. Health data are currently being generated faster and in far greater quantities than can be managed and leveraged without informatics.

- Informatics within an informatics-savvy framework presents innumerable possibilities to improve health outcomes through the way data are collected, exchanged, shared, and used. The informatics-savvy framework allows leaders to optimize health information use for public health decision-making around health initiatives, strategic partnerships, funding, and resource allocation.

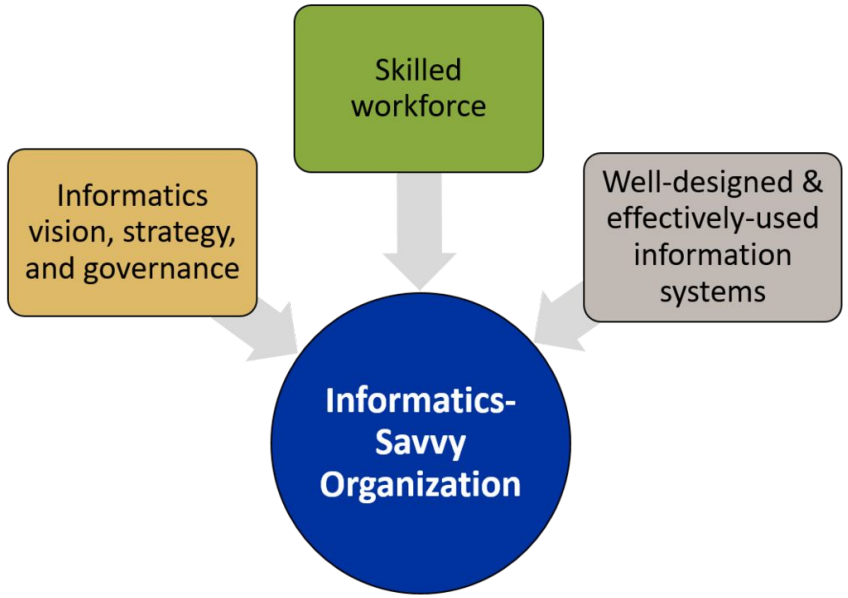
Key Points

- Informatics is defined as “the systematic application of information and computer science and technology to public health practice, research, and learning.”

- Informatics outputs allow leaders to optimize data and information to make critical resource planning decisions that improve patient and population health outcomes. Leaders need to leverage informatics to obtain the information required to effectively advocate for their programs to public health stakeholders and funding organizations.

Key Points

- An informatics-savvy organization is defined as one that can obtain, effectively use, and securely exchange information to improve public health practice and population health outcomes.
- The Informatics-savvy Organization Self-assessment Tool provides leaders and their teams with objective, measurable information on the strengths and gaps of their program in these three key capabilities.



Key Points

- Poor informatics practices can expose a national entity to a high risk of not having the data needed to perform critical tasks such as allocating resources and advocating for informatics programs.
- The informatics-savvy organization framework offers leaders a structured and strategic way to start effectively using public health informatics. The Informatics-savvy Organization Self-Assessment Tool and Roadmap are a leader's resources for identifying informatics-savvy goals and paving the way to achieve them.
- With an informatics-savvy organization, a leader can focus on moving their organization to a future state of optimizing digital information to improve their country's health outcomes.

Key Points

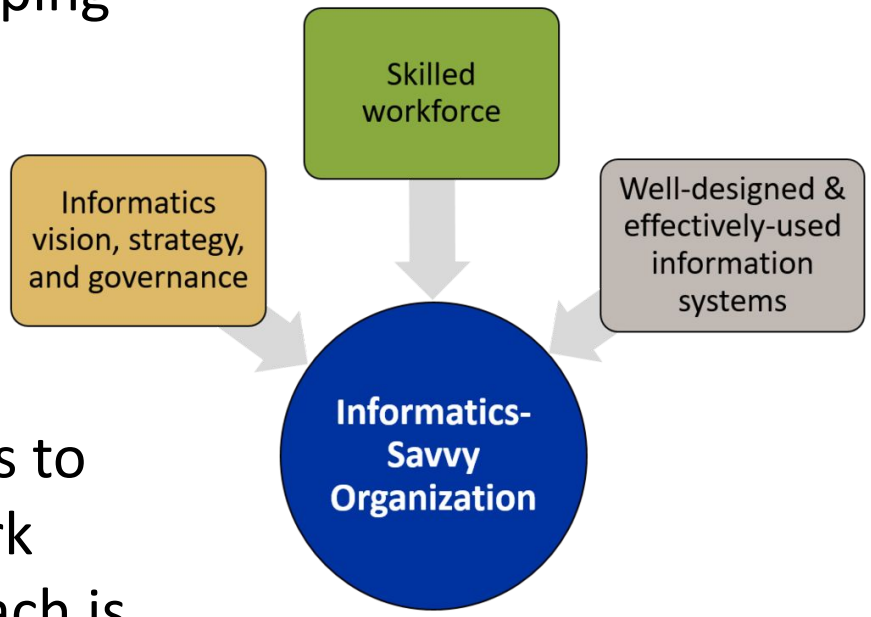
- Building an Informatics-savvy Organization for Leaders 101 was designed in response to the informatics challenges of CDC headquarters and country leadership, as identified through an in-depth assessment.

- Findings from the CDC/PHII needs assessment strongly indicate the need for leadership training in the informatics-savvy framework, its tools and resources.

- Through understanding of the current state of informatics, the informatics-savvy framework and the country leader role and requirements, you will be better equipped to address your country's informatics challenges.

Key Points

- The informatics-savvy organization framework serves country leaderships needs as a standardized and tested approach for developing their organization's informatics program.



- There are three core capabilities to the informatics-savvy framework that are interdependent, and each is equally important to the efficacy of the informatics-savvy framework.

Key Points

- Through building an informatics-savvy organization, leaders can unlock data's full potential. By identifying the current country realities and its implications to the organization, leaders gain a heightened awareness and can begin to take action steps to improve the current realities.

- Understanding and leveraging the informatics-savvy framework give leaders a systematic and strategic way to increase informatics capacity.

Key Points

- Through building an informatics-savvy organization, Division of Global HIV/Tuberculosis (DGHT) leaders can unlock data's full potential. By identifying the current country realities and its implications to the organization, leaders gain a heightened awareness and can begin to take action steps to improve the current realities.

- Understanding and leveraging the informatics-savvy framework give leaders a systematic and strategic way to increase informatics capacity.

Course Conclusion

- In spring 2018, CDC and PHII conducted a needs assessment with over 130 DGHT leaders to identify the current challenges and training needs of CDC country leadership in PEPFAR-funded countries.
-
- The implications of the digital revolution require that the world, more specifically the public health community, change the way we assess, process, and use data. Public health leaders need informatics to optimize the massive quantities of data being collected and used to various ends. Through effective exchange and sharing, there is an abundance of valuable information that can be used to inform public health strategies and practices, for overall improved health outcomes.
-
- Strong leadership skills within an informatics-savvy framework are key determining factors of country leader success. The informatics-savvy framework provides the necessary structure, guidance, and resources for every country leader to build an effective and sustainable informatics program.

- Informatics-savvy leaders must be knowledgeable and must be able to act decisively in their role. Only an informatics-savvy organization has the capability to optimize the quantity of data available for public health decision-making and to meet demanding PEPFAR program reporting requirements.

- Now that you have completed this training, take advantage of the resources available to continue to broaden your understanding and knowledge base of informatics. Remember Esther going forward as you arrive in your deployment country and approach the country office staff about their current realities. Familiarize yourself with the Informatics-savvy Organization Self-assessment Tool and other resources before using them with your team.

Resources

- Download the Informatics-savvy Organization Resource Guide to obtain links to Informatics-savvy Organization resources.

- Building an Informatics-savvy Organization: A Self-assessment Tool

- Informatics-savvy Organization Action Planning and Guidance Document

Knowledge Check

Knowledge Check options- choose the best fit for your workshop

1. Use the slides to display each question and answer.

If you want to track individual responses, have them mark answers on a piece of paper and submit to the facilitator. Then review the answer slides as a group.

2. Put the questions into an online form for participants to answer via smartphone or computer (e.g. Google form, Survey Monkey, Mentimeter)

Part 1 Knowledge Check- Q1

Q1: Of the three capabilities of an informatics-savvy organization, information systems is the most important. Vision, strategy and governance, and a skilled workforce are nice to have, but not required.

TRUE or FALSE?

Part 1 Knowledge Check- Q1

Q1: Of the three capabilities of an informatics-savvy organization, information systems is the most important. Vision, strategy and governance, and a skilled workforce are nice to have, but not required.

ANSWER: FALSE! The three capabilities of an Informatics-savvy Organization are equally important and interdependent.

Part 1 Knowledge Check- Q2

Q2: Findings from the CDC/PHII needs assessment indicate leadership would be highly capable of addressing their informatics leadership and management responsibilities, if only effective informatics programs were in place.

TRUE or FALSE?

Part 1 Knowledge Check- Q2

Q2: Findings from the CDC/PHII needs assessment indicate leadership would be highly capable of addressing their informatics leadership and management responsibilities, if only effective informatics programs were in place.

ANSWER: FALSE! Findings from the CDC/PHII needs assessment strongly indicate that leadership have inadequate informatics education and training. This correlates with 75% of leader reports of low-to-average core capabilities in addressing their informatics leadership and management responsibilities.

Part 1 Knowledge Check- Q3

Q3: How can informatics allow public health leaders to effectively meet PEPFAR goals?

A. Through effective data exchange and sharing, informatics allows leaders to optimize SIMS and MER data to meet PEPFAR program requirements.

B. Informaticians work with IT to write complex algorithms that yield highly usable data.

C. Informatics programs must be implemented using a PEPFAR-approved framework.

Part 1 Knowledge Check- Q3

Q3: How can informatics allow public health leaders to effectively meet PEPFAR goals?

ANSWER: A. Through effective data exchange and sharing, informatics allows leaders to optimize SIMS and MER data to meet PEPFAR program requirements.

Informatics allows leaders to optimize existing data from quarterly reporting to meet further PEPFAR requirements.

Part 1 Knowledge Check- Q4

Q4: Informatics can be used to address the current reality of large quantities of data being collected but not optimized.

TRUE or FALSE

Part 1 Knowledge Check- Q4

Q4: Informatics can be used to address the current reality of large quantities of data being collected but not optimized.

ANSWER: TRUE! Without informatics, it is impossible to manage and optimize the volume of data being collected for public health decision-making.

Part 2 Knowledge Check- Q1

Q1: Which is a promise of the digital revolution for public health?

A. Ensure each public health worker and leader is informatics-savvy.

B. Increase access to informatics through communication and information exchanges.

C. Hasten translation of public health surveillance and research findings into practice and policy.

Part 2 Knowledge Check- Q1

Q1: Which is a promise of the digital revolution for public health?

ANSWER: C. Hasten translation of public health surveillance and research findings into practice and policy.

Part 2 Knowledge Check- Q2

Q1: Public health informatics is defined as:

A. Public health application for “information systems.”
B. The systematic application of information, computer science, and technology to public health practice, research, and learning.
C. Information technology used to exchange and share data between multiple public health organizations.
D. All of the hardware and software used for public health data surveillance.

Part 2 Knowledge Check- Q2

Q2: Public health informatics is defined as:

ANSWER: B. The systematic application of information, computer science, and technology to public health practice, research, and learning.

Part 2 Knowledge Check- Q3

Q3: Which of the following are applications of public health informatics?

A. Make effective use of the increasing volume and variety of digital information available to public health, and learn what we can do to continually improve health outcomes for populations.

B. Inform critical resource allocation decisions involving millions of dollars.

C. Provide leaders with the information required to effectively advocate for their programs to CDC headquarters and international public health stakeholders.

D. All of these are applications of public health informatics.

Part 2 Knowledge Check- Q3

Q3: Which of the following are applications of public health informatics?

ANSWER: D. All of these are applications of public health informatics.

Part 2 Knowledge Check- Q4

Q4: What are the core capabilities of an informatics-savvy organization?

A. Strong information technology infrastructure and staff specialized in informatics, supporting public health leadership and workforce
B. Vision, strategy, and governance; a skilled workforce; and well-designed and effectively-used information systems
C. Surveillance and information systems leadership working collaboratively with IT to ensure rigorous application of data governance policies
D. Strong leadership, resources and tools in place to run the organization

Part 2 Knowledge Check- Q4

Q4: What are the core capabilities of an informatics-savvy organization?

ANSWER: B. Vision, strategy, and governance; a skilled workforce; and well-designed and effectively-used information systems

Part 2 Knowledge Check- Q5

Q5: Country leadership require knowledge about the applications, requirements and outputs of public health informatics, as well as best practices for program management, and strong leadership skills in order to make data-driven decisions about the organization's informatics strategy.

TRUE or FALSE?

Part 2 Knowledge Check- Q5

Q5: Country leadership require knowledge about the applications, requirements and outputs of public health informatics, as well as best practices for program management, and strong leadership skills in order to make data-driven decisions about the organization’s informatics strategy.

ANSWER: TRUE!

Part 2 Knowledge Check- Q6

Q6: An informatics-savvy leader should:

A. Create a shared vision of how information will be managed and used as the key strategic resource in their organization.

B. Use effective informatics governance.

C. All of the above.

Part 2 Knowledge Check- Q6

Q6: An informatics-savvy leader should:

ANSWER: C. All of the above.

An informatics-savvy leader creates a shared vision of how information will be managed and used as the key strategic resource in their organization and uses effective informatics governance.