

Elements of Successful Prevention Programs: Identifying Best Practices to Improve Cancer Control

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What Is Evaluation?

The systematic collection of information about the activities, characteristics, and outcomes of programs to

- make judgments about the program,
- improve program effectiveness,
- inform decisions about future program development.

Patton, M. Q. (1997.) *Utilization-focused evaluation: The new century text* (3rd ed.). Thousand Oaks, CA: Sage.

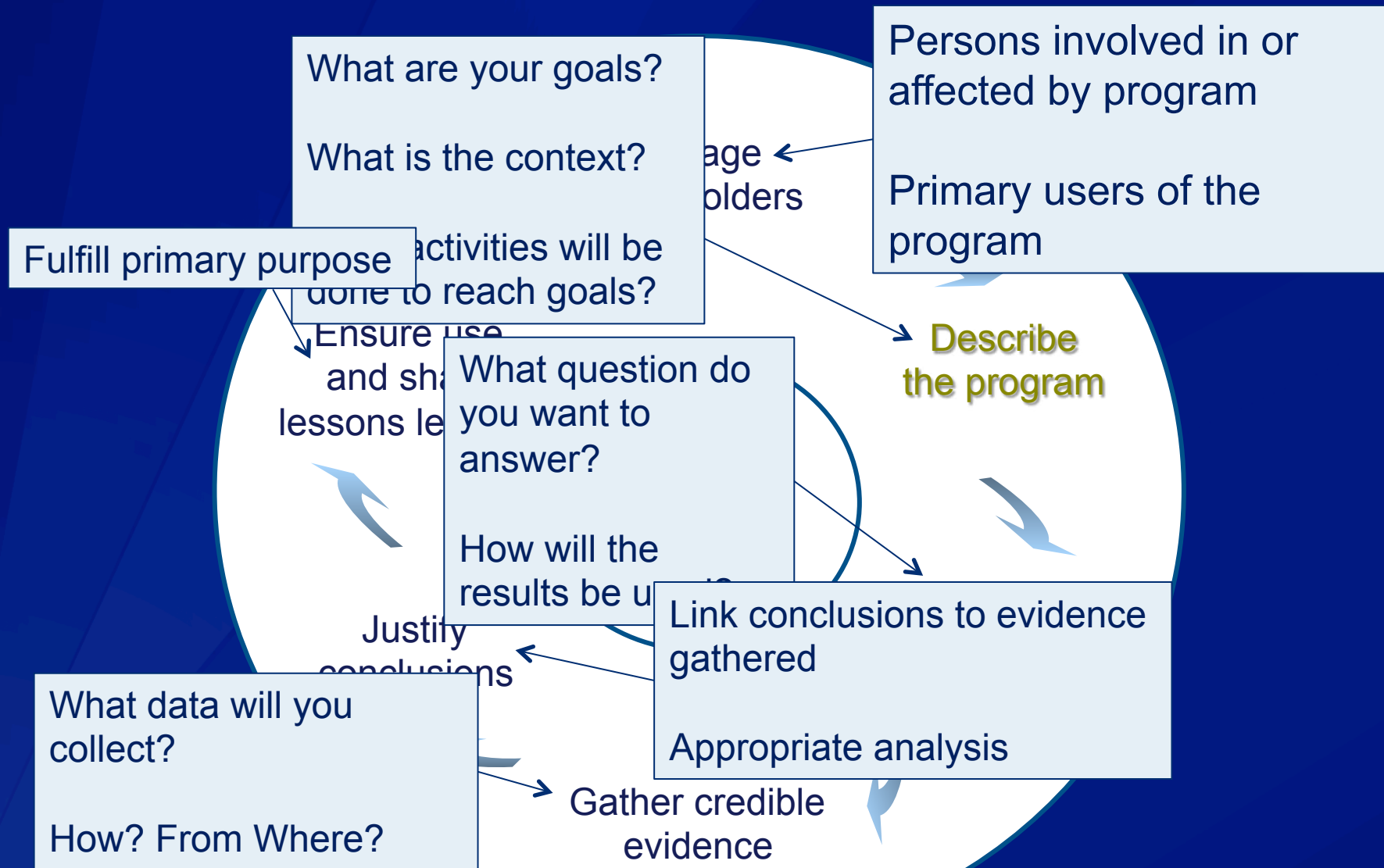
Why Use Program Evaluation?

- Measure program progress and outcomes
- Improve program performance and management
- Support data-based decision making
- Demonstrate accountability to stakeholders
- Manage program resources
- Focus program priorities
- Advocate for program

Evaluation is not.....

- Punitive
- Exclusionary
- Adversarial
- Commentary on staff abilities
- Meant to only result in positive findings

CDC Evaluation Framework



Attend to the 4 Evaluation Standards

- Utility Standard
 - Ensure stakeholders find evaluation processes and products valuable in meeting their needs
- Feasibility Standard
 - Ensure evaluations are realistic, effective and efficient
- Propriety
 - Ensure evaluations are proper, fair, legal, right and ethical
- Accuracy
 - Ensure evaluations are technically adequate (e.g., valid, reliable)

Types of Evaluation

- **Process Evaluation**
- **Outcome Evaluation**
- **Impact Evaluation**

Process Evaluation

- ❑ How the program is implemented
- ❑ How program is conducted from start to finish
- ❑ **Example:**
 - Number of partnerships
 - Types of organizations
 - Number of providers contracted
 - Number of patient navigators
 - Average time between enrollment and screening

Outcome Evaluation

- ❑ **The change that has occurred between the start and the end of your program**

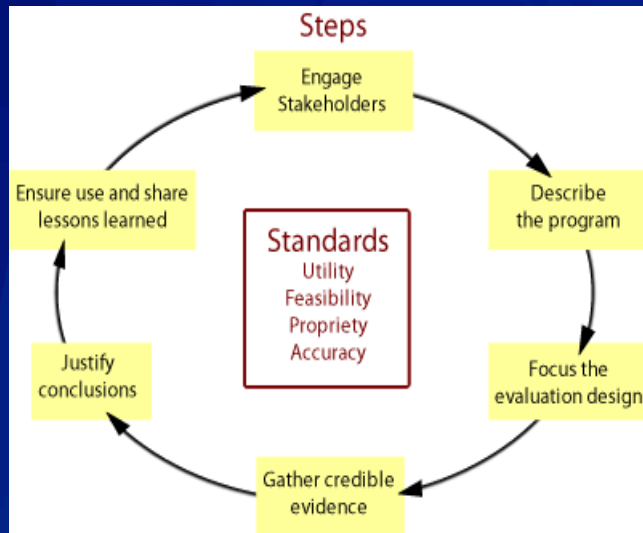
- ❑ **Examples:**
 - Increase in the percent of the population up to date with screening
 - Change in provider knowledge about cancer screening guidelines
 - Decrease in percentage of no-shows for colonoscopy appointments

Impact Evaluation

- ❑ **The change that has occurred that can be attributed to your program**

- ❑ **Examples:**
 - Randomized controlled trial comparing intervention to no intervention
 - Comparison of clinic with intervention to clinic without intervention

Case Study



❑ **Organization X**

❑ **Grant award**

- Increase colorectal cancer screening rates
- Underserved populations
- Provide CRC screening services
- Program Evaluation

Step 1: Engage Stakeholders

Potential Stakeholders

- **Target population**
- **Providers/healthcare systems**
- **Community Leaders**
- **State and Local Health Departments**
- **Funders**
- **Organization staff and leadership**

Step 2: Describe the Program

Activities

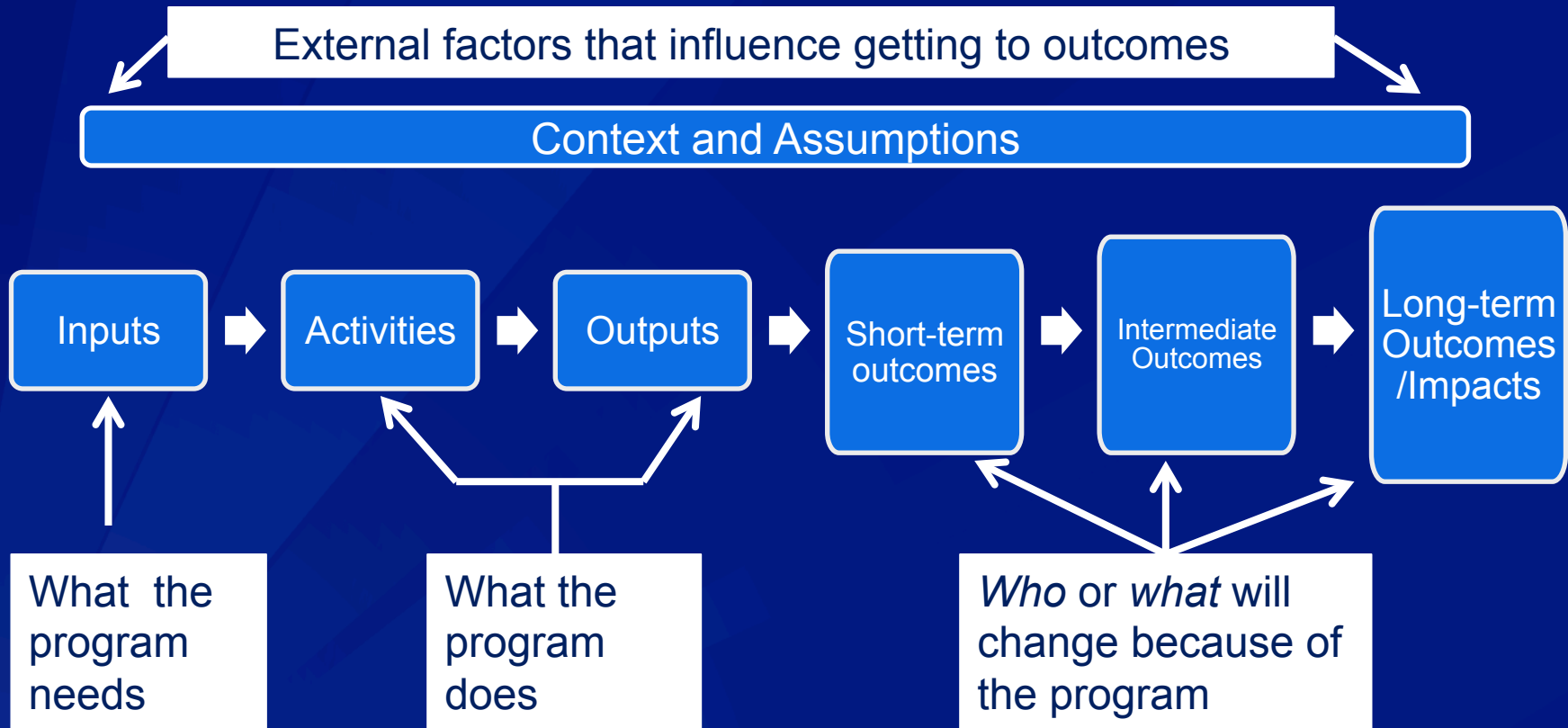
- Public Education
- Partner with providers/healthcare system
- Screening – underserved
- Provider education
- Patient navigation

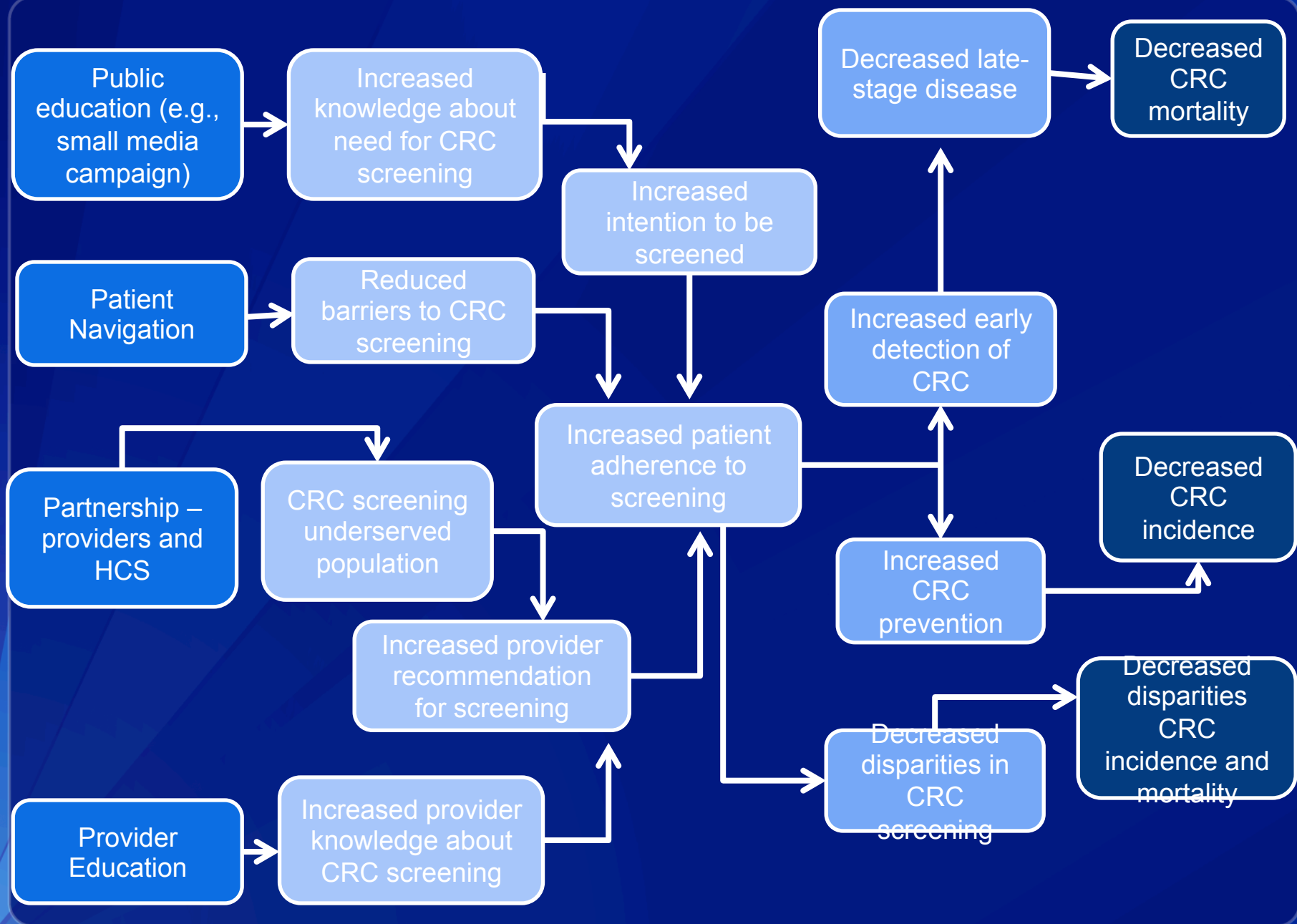
Effects/Outcomes

- Increase % of population screened for CRC
 - Increase public awareness about CRC screening
 - Increase provider knowledge about CRC screening
 - Reduce patient barriers to screening
 - Decrease incidence of CRC
 - Decrease mortality from CRC
-



Logic Model





Public education (e.g., small media campaign)

Increased knowledge about need for CRC screening

Patient Navigation

Reduced barriers to CRC screening

Partnership – providers and HCS

CRC screening underserved population

Increased intention to be screened

Increased patient adherence to screening

Provider Education

Increased provider knowledge about CRC screening

Increased provider recommendation for screening

Decreased late-stage disease

Increased early detection of CRC

Increased CRC prevention

Decreased disparities in CRC screening

Decreased CRC mortality

Decreased CRC incidence

Decreased disparities CRC incidence and mortality

The purpose of logic models is not to....

- ❑make pretty pictures
- ❑ Logic models are not necessary but
- ❑ Program description is a must
 - Need
 - Target group
 - Intended outcomes/objectives
 - Activities
 - Relationship between activities and outcomes

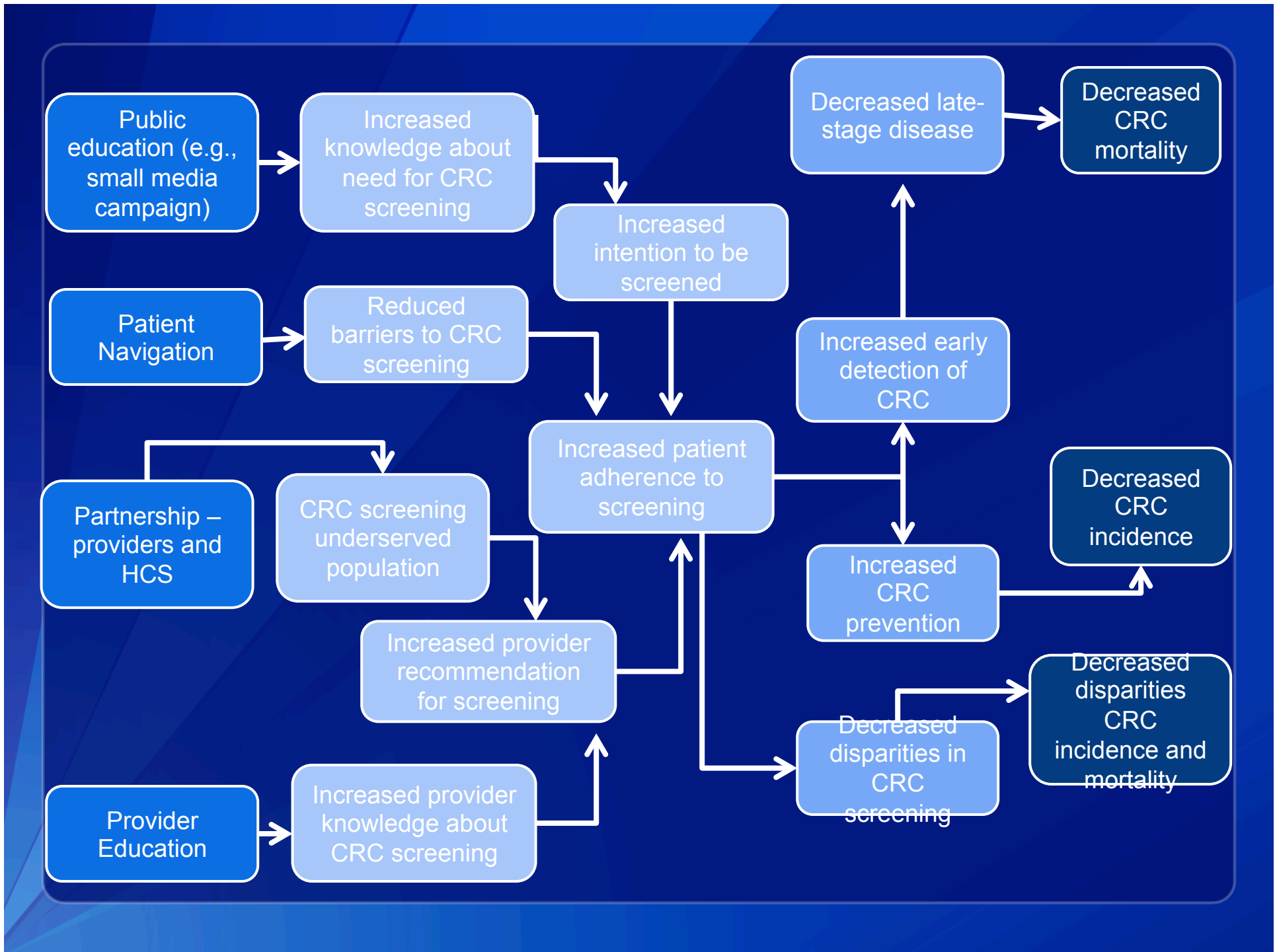
**Step 3:
Focus the Evaluation Design**

What question(s) do you want to answer?

- **What is the purpose of the evaluation?**
 - **Accountability**
 - **Monitoring**
 - **Improvement**
 - **Understanding**
 - **Replicability**
 - **Judgment**
 - **Knowledge**
 - **Development**
- **How will you answer the question? (Methods)**

Organization X

- **How was the program implemented?**
- **Did the program achieve intended outcomes?**



Evaluation Methods

- **How was the program implemented? (Process)**
 - **Case Studies**
- **Did the program achieve intended outcomes?**
 - **Increase CRC screening rate in target population by 20%**
 - **BRFSS**
 - **Clinic screening rate**
 - **Increase knowledge of public about need for CRC screening**
 - **Pre/Post surveys**
 - **Increase provider knowledge about CRC screening guidelines**
 - **Provider survey**

Step 4: Gather Credible Evidence

Data Collection

- **Indicators**
 - % of population aged 50-75 years up to date with CRC screening
 - Define population (state, county, clinic)
 - Survey questions
- **Sources**
 - Clients, providers, general public, database

Data Collection

- **Quality**
 - Reliable, valid, appropriate
- **Quantity**
 - How much data do you need?
- **Logistics**
 - Methods
 - Timing
 - infrastructure

Steps 5 and 6:

- **Justifying Conclusions**
 - Data analysis
 - Link conclusions to data gathered
 - Judge against agreed upon standards or values
- **Ensure use and share lessons learned**
 - Interim and final reports
 - Strengths and weaknesses
 - Recommendations
 - Dissemination

**Steps Applied:
CDC's Colorectal Cancer Control
Program (CRCCP)**

Engage Stakeholders

- **Identify stakeholders with an interest in CRCCP**
 - **State health departments**
 - **CDC staff and decision makers**
 - **National organizations (American Cancer Society)**

Describe the Program

- **What activities are provided as part of the CRCCP?**
- **What do you expect to happen because of the CRCCP?**
- **Use logic modeling to depict how the CRCCP is supposed to work to achieve its outcomes**

Goals



Colorectal Cancer Control Program

Funded by the Centers for Disease Control and Prevention

- Increase high-quality colorectal cancer (CRC) screening among persons 50 – 75 years to 80% by 2014
- Reduce disparities in CRC burden, screening and access to care

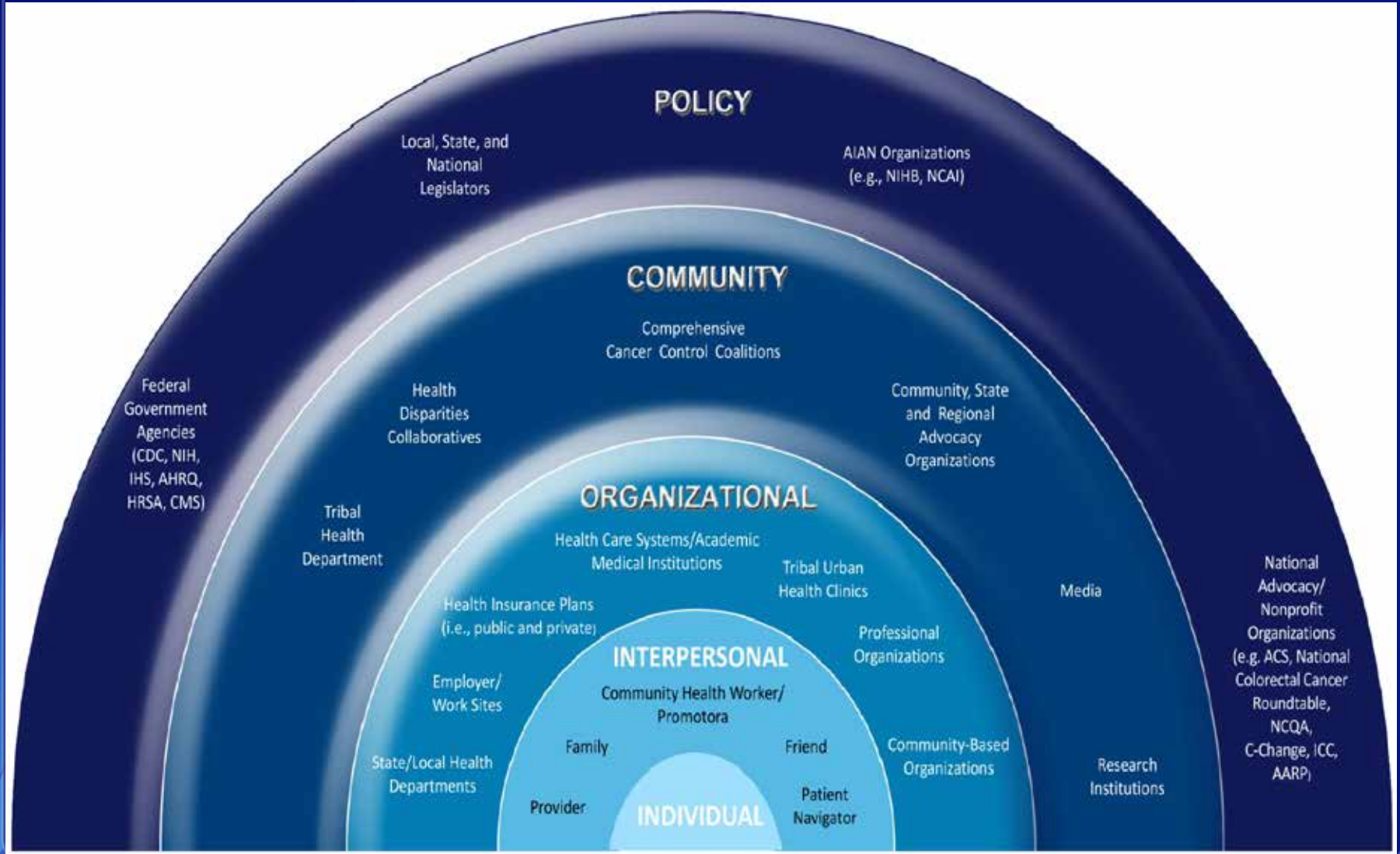
Providing CRC Screening

- Direct service delivery of CRC screening and diagnostic services to target population:
 - Men and women aged 50 – 64 years
 - Underinsured or uninsured for screening services
 - 250% Federal Poverty Level or lower

Promoting CRC Screening

- **Implementation of activities aimed to increase population-level screening rates:**
 - Policy
 - Health Systems
 - Health Care Providers
 - Public Awareness and Education
 - Strategic Partnerships
 - Communities

A Social Ecological Model



The Colorectal Cancer Control Program: A Program Framework for Population-based CRC Screening

CDC Activities

- Collaboration with Federal Partners
- Participation in National Partnerships and Initiatives
- Grantee Funding
- Technical Assistance and Training for Grantees
- Data Management, Monitoring and Evaluation
- Surveillance
- Research
- Economic Analyses
- Policy Development

Grantee Activities*

CRC Screening Promotion: Communication and Systems/Policy Change

- **Program Management**
 - ✓ Conduct public health assessment of health care systems, health insurance plans, professional organizations, employers/worksites, and legislation
 - ✓ Develop workplans to guide implementation of CRC screening promotion activities
 - ✓ Establish and maintain memoranda of understanding
 - ✓ Support program integration
- **Public Education and Outreach**
 - ✓ Conduct public awareness and educational activities (e.g., targeted small media campaigns† large scale media campaigns.)
 - ✓ Promote CRC screening among high risk populations
- **Quality Assurance and Professional Development**
 - ✓ Promote quality standards for CRC screening and surveillance
 - ✓ Promote provider education and training (e.g., importance of physician recommendation, value of provider and client reminder systems†, patient-provider communications)
 - ✓ Promote increased endoscopic capacity where needed
- **Partnerships for Systems Change and Policy Development**
 - ✓ Comprehensive Cancer Control Coalitions
 - Support policy changes to promote CRC screening
 - ✓ Healthcare Systems
 - Promote use of provider reminder and recall systems † & electronic medical records that support provider recommendation and delivery of CRC screening services
 - Promote USPSTF guidelines and quality standards for CRC screening
 - Promote practiced based systems changes designed to increase primary care referrals for CRC screening
 - Promote the use of provider assessment and feedback to support provider recommendation and delivery of CRC screening services †
 - Promote the use of client reminders to support individual demand for CRC screening services †
 - ✓ Health Insurance Plans
 - Encourage coverage and/or expanded benefits for CRC screening
 - Encourage adequate reimbursement rates for CRC screening, diagnostic, and patient support services
 - Promote reimbursement strategies that reward fidelity with USPSTF CRC screening guidelines
 - Encourage use of HEDIS measures
 - Promote sentinel reporting of colonoscopy by hospitals or health insurance plans
 - ✓ Professional Organizations
 - Provide education and awareness for USPSTF CRC screening guidelines
 - Promote the use of quality standards for CRC screening
 - ✓ Employers & Worksites
 - Encourage adoption of policies that support preventive care (e.g., time off for CRC screening)
 - Support adoption/expansion of wellness programs
 - Increase awareness of the need and benefits of CRC screening
 - ✓ Policy Development
 - Support legislative changes for mandatory insurance coverage and reduced co-pays for CRC screening
- **Data Collection and Tracking**
 - ✓ Establish data systems for non-screening program activities, including those that promote population-based CRC screening
 - ✓ Encourage use of clinical and cost data measures by healthcare systems, health plans and providers
- **Patient Support Services**
 - ✓ Develop and implement a plan, including identifying funding or insurance sources, to refer persons to available CRC screening resources
 - ✓ Encourage the use of patient navigation† and other support services within existing health systems designed to reduce structural barriers
- **Program Monitoring and Evaluation**
 - ✓ Conduct process evaluation of program activities

CRC Screening Provision: Low-Income, Un- and Under-insured Individuals

- **Program Management**
 - ✓ Contract with providers
 - ✓ Convene medical advisory board and develop policy
 - ✓ Develop data management and billing systems
- **Public Education and Patient Recruitment**
 - ✓ Develop and implement small media (e.g., brochures) for education and outreach
 - ✓ In-reach to patients in existing health care systems
- **Provision of Screening and Diagnostic Services**
 - ✓ Integrate screening with other clinical services
 - ✓ Provide quality, appropriate screening and surveillance to average risk populations
 - ✓ Provide timely follow-up of abnormal screens
- **Quality Assurance and Professional Development**
 - ✓ Implement standards, systems, and policies to support quality screening
- **Patient Support Services**
 - ✓ Implement patient navigation†
 - ✓ Facilitate access to diagnosis and treatment
- **Partnerships for Systems Change and Policy Development**
 - ✓ Partner with CCC, providers, CBOs, cancer registries, local health department, and AI/AN groups
 - ✓ Support program integration
- **Clinical and Cost Data Collection and Tracking**

Outcomes

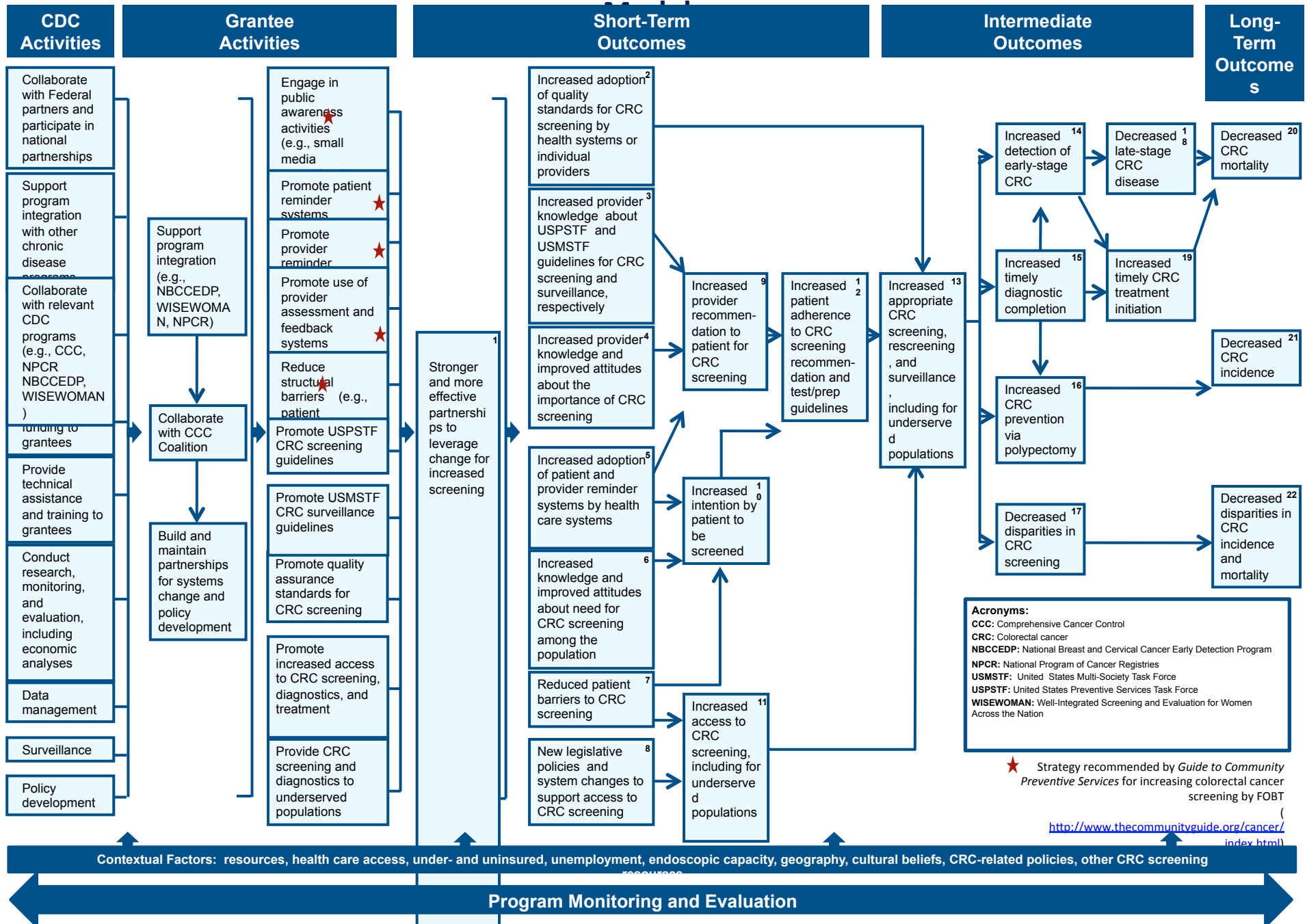
- **Population**
 - ✓ Increased CRC screening rates
 - ✓ Decreased disparities in CRC screening rates
- **Policy**
 - ✓ Increase federal, state, and local legislative policy that supports CRC screening, diagnostics, and treatment
- **Community**
 - ✓ Improved public awareness of the need for, and benefits and availability of CRC screening, diagnostics and treatment
 - ✓ Increased resources for CRC prevention and control activities
 - ✓ Increased access to CRC screening, diagnostics, and treatment
- **Organizational**
 - Health Care Systems
 - ✓ Increased adoption of policies, programs and practices that support access to, and utilization of quality CRC screening, diagnostics and treatment
 - ✓ Improved quality of CRC screening
 - ✓ Increased endoscopic capacity/colonoscopy volume
 - Health Insurance Plans
 - ✓ Increased access to CRC screening via improved or expanded coverage
 - ✓ Improved quality of CRC screening, diagnostics and treatment
 - Professional Organizations
 - ✓ Increased promotion of policies, programs and practices supporting the provision of quality CRC screening, diagnostics and treatment
 - Employers & Worksites
 - ✓ Increased adoption of policies and programs that support CRC screening
- **Individual/Interpersonal**
 - **Increased Individual:**
 - ✓ Knowledge of need/benefit of CRC screening
 - ✓ Intention and self-efficacy to be screened
 - ✓ Adherence to CRC screening recommendation and test preparation
 - ✓ Completion of diagnostic services
 - ✓ Timely initiation of cancer treatment services
 - **Increased or Improved Provider:**
 - ✓ Knowledge of and adherence to USPSTF CRC screening guidelines
 - ✓ Recommendation to patients for CRC screening

Health Goals

- Decreased Incidence of CRC
- Decreased Late-Stage CRC
- Decreased CRC Mortality
- Reduced disparities in CRC incidence and mortality

*Intended as examples of possible grantee activities. †Strategy recommended by Guide to Community Preventive Services (<http://www.thecommunityguide.org/cancer/index.html>) for increasing colorectal cancer screening by FOBT

CDC's Colorectal Cancer Control Program: Logic



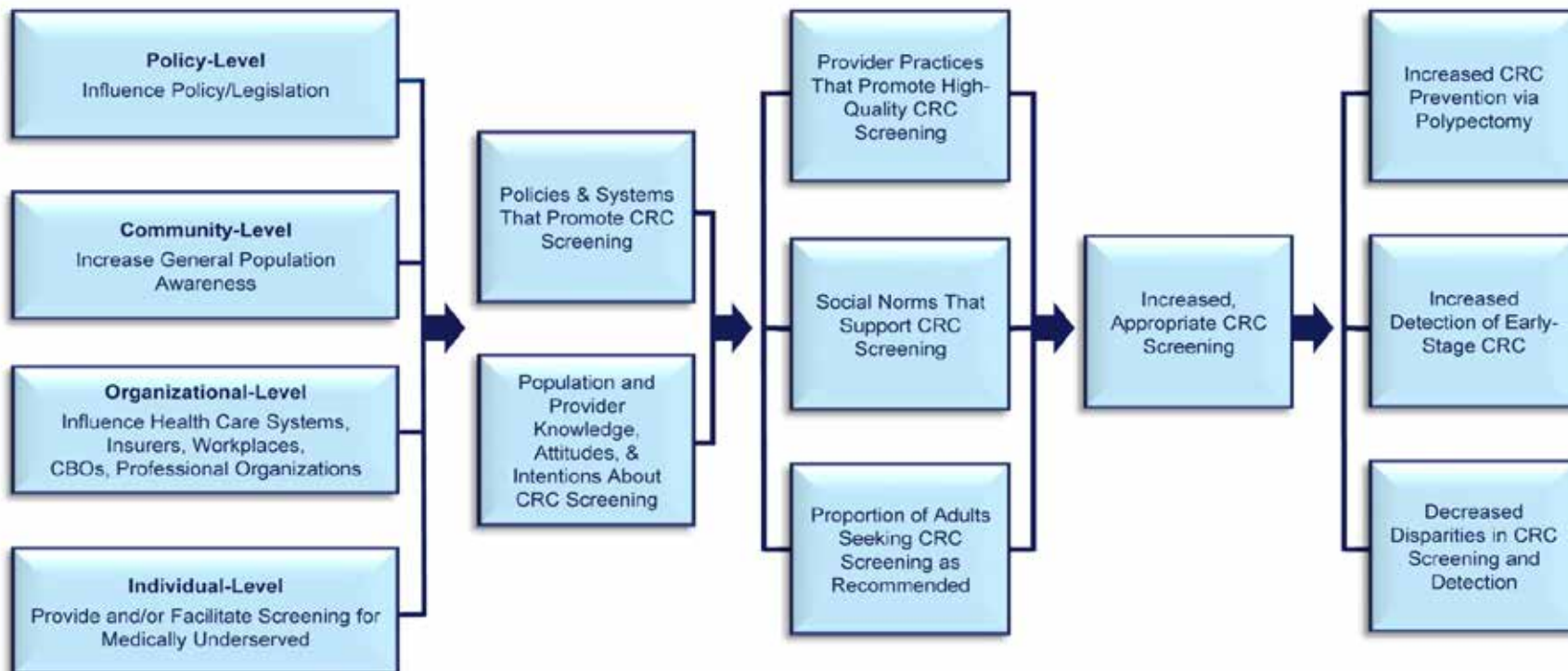
Program Logic Model (Simplified)

CDC's Colorectal Cancer Control Program: Simplified Logic Model

State and Tribal Grantees, in Collaboration With CCC Coalitions and Other Partners, Conduct These Activities...

To Create These Changes That Improve or Increase...

In Order to Achieve Population-Level Program Outcomes



Program Monitoring and Evaluation

Focus the Evaluation Design

- **Define the Evaluation Purpose and Questions**
 - **How was the CRCCP implemented? (what did the grantees do?)**
 - **Were program outcomes achieved (80% CRC screening rates, reduced CRC incidence/ mortality rates)?**

Focus the Evaluation Design

- **Select appropriate methods**
 - **Evaluation Q1: How was the CRCCP implemented? (what did the grantees do?)**
 - Annual Grantee Survey
 - Case studies of programs

Focus the Evaluation Design

- **Select appropriate methods**
 - **Evaluation Q2: Were program outcomes achieved (80% CRC screening rates, reduced CRC incidence/mortality rates)?**
 - Secondary data analysis:
 - » Analyze BRFSS data semi-annually
 - » Analyze USCS data annually

Gather Credible Evidence

- **Data Collection**

- Develop grantee survey instrument
- Develop case study protocols (e.g., interview guides)
- Human subjects review
- Collect survey data annually using web-based approach
- Conduct site visits to subset of grantees to conduct interviews and observations

Justify Conclusions

- **Data Analysis**

- Conduct secondary analysis of BRFSS and USCS data
 - Ensure data quality and appropriate analysis
- Conduct quantitative analysis of survey data
- Conduct qualitative analysis of case study data

Ensure Use and Share Lessons Learned

- **Dissemination!**
 - Determine how to share results in a meaningful way for unique stakeholder groups
 - Provide technical support to integrate findings into practice

Evaluation Pitfalls

- **Activity vs. Program evaluation**
- **Mismatched activities and outcomes**
- **Indicator mishaps**
- **Mismatched evaluation question and evaluation design**
- **Data for data's sake**

If you remember nothing else....

- Program description is a must
- What is the question?
- Avoid magical thinking
- Evaluation is a continuous process

Resources

- CDC. Framework for Program Evaluation in Public Health. MMWR 1999;48(No. RR-11):1-40
- CDC Website <http://www.cdc.gov/eval/index.htm>

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The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

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