

Cumberland County Department of Public Health

QUALITY IMPROVEMENT PLAN



Executive Summary

The Cumberland County Department of Public Health (CCDPH) workforce will implement the procedure for Quality Improvement as outlined in this plan.

This report will be maintained by the Deputy Health Director and approved bi-annually by the CCDPH Senior Leadership Team. Reports from previous years can be found in Appendix C of this plan.

The Quality Improvement Plan is authorized and is given final approval by the Health Director.

Health Director *Jennifer Green* Date: March 7, 2025

Revision History

Date Revised	Version	Person	Description
December 2020	1	Ashley Curtice	Created plan
March 2022	1	QI Team	Added Appendix C
March 2023	2	QI Team	Added Appendix D/ Revision to Mission, Vision, Values page and added Foundational page
July 2024	3	QI Team	Updated Appendix E to reflect QI projects completed in 2023
March 2025	4	QI Team	Updated Appendix F to reflect projects done in 2024

Contents

Introduction..... 4

Mission, Vision, and Values..... 5

Foundational Public Health Services 6

Definitions 7

Alignment with Strategic Planning
and North Carolina Local Health Department Accreditation 8

Quality Improvement Team..... 9

Quality Improvement Training..... 10

Identification and Selection of QI Projects 11

Implementation and Monitoring of QI Projects 13

Communication Plan 14

Appendix A 15

Appendix B..... 18

Appendix C..... 20

Appendix D 22

Appendix E..... 25

Appendix F..... 29

References 34

Introduction

The Cumberland County Department of Public Health (CCDPH) uses a Quality Improvement Team approach to Quality Improvement (QI). The purpose of the QI process is to ensure the mission and core values of Cumberland County and CCDPH are being met.

The goal is to have accountability for the work CCDPH does to accreditation boards, government bodies, and the residents in Cumberland County. The QI process in CCDPH will create alignment between the Community Health Improvement Plan (CHIP), CCDPH's Strategic Action Plan, programmatic goals, and individual employee performance as well as the Board of Health's internal and external priorities created every 3-5 years.

It is important to create a plan that provides a framework for the Health Department's work to foster a culture of performance and quality improvement. A strong commitment from all staff is necessary to create a performance and quality improvement culture. This involves measuring and monitoring selected outputs and outcomes to ensure that sustainable improvements are made. All initiatives are planned and implemented in a collaborative manner through the QI team and department representatives.

The Department of Health will provide citizens with a fully functioning, high achieving health department that meets their needs.

Mission, Vision & Core Values

OUR MISSION

To provide high quality service in a professional, efficient, and fiscally responsible manner while improving the health of Cumberland County.

OUR VISION

To have healthy people living in a healthy community.

CORE VALUES

CCDPH follows the County core values of **PRIDE** coupled with **FACT**

Professionalism

Fairness

Respect

Acceptance

Integrity with accountability

Collaboration

Diversity

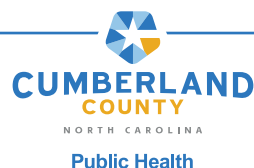
Teamwork

Excellent Customer Service

Recognizing that all people are different, we treat everyone with dignity and serve our diverse population with professionalism, respect, integrity, diversity and excellent customer service.

PRIDE is a **FACT**

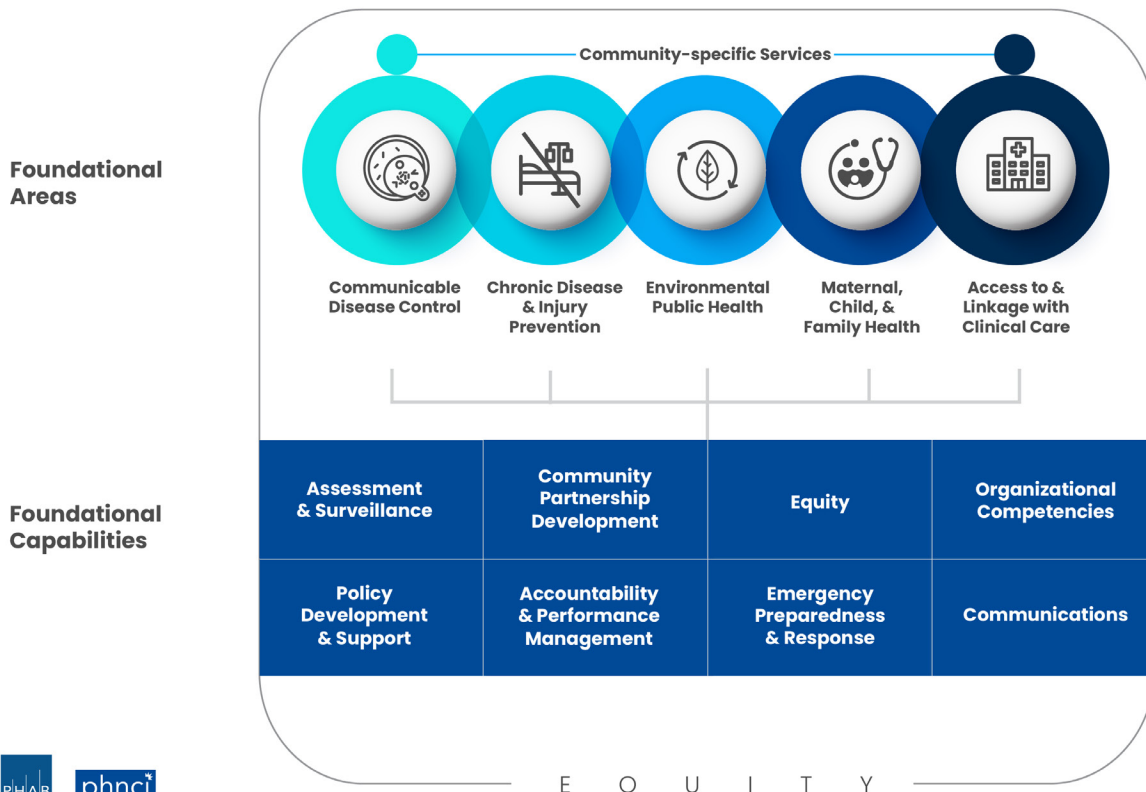
Together we can set a place for everyone, and welcome all to the table.



Foundational Public Health Services

The Foundational Public Health Services (FPHS) were developed in 2013 and updated in 2022 to define a minimum package of public health capabilities and programs that no jurisdiction can be without. The FPHS framework outlines the unique responsibilities of governmental public health, which includes local health departments. The FPHS details the foundational capabilities, the cross-cutting skills and capacities needed to support basic public health programs and activities that are key to ensuring the community’s health and achieving equitable health outcomes. These capabilities include equity, assessment and surveillance, communications, and community partnership development. Local health departments provide services in several foundational public health areas including communicable disease control, chronic disease and injury prevention, environmental public health, maternal and child health, and access to and linkages to care.

Foundational Public Health Services



February 2022

Definitions

Plan-Do-Study-Act (PDSA)

The PDSA cycle is shorthand for testing a change by developing a plan to test the change (**Plan**), carrying out the test (**Do**), observing and learning from the consequences (**Study**), and determining what modifications should be made to the test (**Act**).¹

Quality Assurance (QA)

Prevention of quality problems through planned and systematic activities including documentation.

Quality Improvement (QI)

The utilization of deliberate and defined improvement processes focused on activities that are responsive to community needs and improving population health. It refers to a continuous and ongoing effort to achieve measurable improvements in the efficiency, effectiveness, performance, accountability, outcomes, and other indicators of quality in services or processes which achieve equity and improve the health of the community.²

Strategic Plan

A plan that identifies projects that will have a positive impact upon the organization's internal operations. Directed at improving the overall value provided by the organization to all of its stakeholders.

Community Health Assessment (CHA)

The CHA is a fundamental tool of public health practice. Its aim is to describe the health of the community by presenting information on health status, community health needs, resources, and epidemiologic and other studies or current local health problems.³

Community Health Improvement Plan (CHIP)

The CHIP uses information from the Community Health Assessment. Strategies are identified and action teams are developed, comprised of public health leaders and community partners to address the problem identified in the CHA.⁴

Assessment

A process of collecting and analyzing data to determine the current, historical, or projected status of an organization. Assessments are performed when there is a major change to a process to assure that the specific change or new requirement has been successfully implemented.

SWOT Analysis

Identifies both internal and external factors that may impact an organization. **Strengths** are internal positive attributes of the organization and **weakness** are internal attributes that may hinder the success of an organization. **Opportunities** are external factors that may facilitate the activities of the organization, while **threats** are external factors that may prevent the organization from meeting its goals.⁵

Fishbone Diagram

Is a cause-and-effect discovery tool that helps figure out the reason(s) for defects, variations or failures within a process. In other words, it helps break down, in successive layers, root causes that potentially contribute to an effect.⁶

Alignment with Strategic Planning and North Carolina Local Health Department Accreditation

The Cumberland County Board of Health and the CCDPH staff undergo a yearlong strategic planning process. A summary of the strategic planning process is outlined in this section. In February each year, the Board of Health gathers for a retreat to set strategic priorities for the CCDPH. Board of Health members are provided, prior to and during the retreat, an overview of relevant national, state, and local data including Healthy North Carolina 2030, Robert Wood Johnson County Health Rankings, Cumberland County Needs Assessment and the annual State of the County Health (SOTCH) Report.

After a discussion of the data, Board members participate in a SWOT (Strengths, Weakness, Opportunities, and Threats) analysis. Board members use a nominal group process to brainstorm priorities individually and then in small groups. Each group has the opportunity to report to the full board their list of identified priorities. The full list of priorities is refined and reflected upon. Finally, Board members vote and develop a narrowed list of priorities. These priorities are then reported out to the Board of County Commissioners, to Cumberland County staff, and to the public.

CCDPH maintains a **Strategic Planning Team** to develop the priorities into timebound and specific goals and objectives. All CCDPH staff are eligible to be members of the Strategic Planning Team and there is an intentional effort to recruit staff members from all levels of the agency and from each department or program in the agency. The established Strategic Planning Team convenes monthly between June and November to develop specific goals and objectives for each internal and external priority developed by the Board of Health. Updates are provided to CCDPH in the department's weekly newsletter and during all staff meetings. Staff has the opportunity to provide feedback on developed goals and objectives via the department's anonymous Digital Solution Box.

During the November public Board of Health meeting during the strategic planning development year, staff present the developed goals and objectives to them for review and feedback. The Board of Health provides the opportunity during the monthly meeting for the public to provide input on the developed strategic plan. To learn more, visit the current and former strategic plans found on the [website](#).

Health department programs will utilize the Strategic Action Plan to identify opportunities for implementation of quality improvement projects. The CCDPH Strategic Action Plan outlines three internally focused priorities. The second priority is to improve the quality and efficiency of health department services.

The intent of this plan is to meet North Carolina's Local Health Department Accreditation Requirements. Local health departments should "evaluate all services it provides for effectiveness in achieving desired outcomes" and implement a "quality... improvement process to assess the effectiveness of services and improve health outcomes."

Quality Improvement Team

CCDPH's quality improvement efforts are championed by a **Quality Improvement Team**. The aim of the QI team is to be representative of the department and include staff from different levels of the department. The QI team is comprised of representatives from the Health Department's Senior Leadership Team, Management Team, as well as frontline staff. The QI Team is chaired by the Deputy Health Director with administrative support from the Deputy's Administrative Assistant I. There are no member term limits, with no more than 20% of the team rotating off each year. Members participate with supervisory approval. This provides members with an opportunity to become experts in QI and allow continuity in the agency. Each year, opportunity will be given to all staff to join the QI team, while striving to have at least 1 representative from each department.

The role of the QI Team is to:

- Learn QI methods and tools and model these tools for others at agency
- Review, evaluate, and approve the agency QI plan annually
- Encourage and create a culture of quality improvement
- Champion QI activities, tools and techniques
- Review and approve QI projects
- Provide technical assistance to departments and programs as they complete their QI projects

The QI Team will convene monthly to carry about the responsibilities of the QI team. Minutes of QI Team meetings will be shared with all staff on the departments shared drive.

All CCDPH staff will participate in QI training and implement concepts into their daily work. Staff will participate their program or department's QI project as needed and requested. Some staff may participate in QI projects in multiple departments or programs. Any staff member can identify or submit QI projects to their supervisor for consideration to the QI Team.

Quality Improvement Training

Training the workforce on quality improvement is essential to create a culture of quality improvement within the agency. A copy of this QI plan will be available on the agency's shared drive.

The purpose of QI training is to review the agency's QI Plan, the PDSA cycle, and the use of QI tools including root cause analysis strategies such as fishbone diagrams and the 5 W's.

During new employment orientation, the Deputy Health Director will provide an overview of the agency's commitment to quality improvement. The Deputy provides a brief overview the agency's QI plan and opportunity to join the QI team. The direct supervisor will provide an overview of the QI project being implemented in the new employee's program or department.

Annually, all employees participate in QI training during an all staff meeting. Each staff is also given time during meeting to convene staff in their departments to develop their annual QI projects.

Training resources and tools include:

- Public Health Foundation Performance Management Toolkit
http://www.phf.org/focusareas/performancemanagement/toolkit/Pages/Performance_Management_Toolkit.aspx
- Agency for Healthcare Research and Quality: Primary Care Practice Facilitation Curriculum
<https://pcmh.ahrq.gov/sites/default/files/attachments/pcpf-module-11-root-cause-analysis.pdf>
- Institute for Healthcare Improvement
<http://www.ihf.org/resources/Pages/Tools/PlanDoStudyActWorksheet.aspx>

Identification and Selection of QI Projects

CCDPH engages in a yearly quality improvement process. The QI team is comprised with representation from each of the different departments.

Department Assignments
Human Resources
Maintenance/Housekeeping AOIII Direct Reports (Triple P, Grants Management, Food Policy Council)
Sexual Transmitted Infections (STI) /Epidemiology Clinic Women, Infants, and Children (WIC)
Health Education Women’s Health Clinic
Administration/Finance School Health
Immunization Clinic/Child Health Clinic
Environmental Health Medical Records
Lab Care Management for At Risk Children/Care Management for High-Risk Pregnancies (CMARC/CMHRP)
Substance Use, Mental Health, and Homelessness

The QI Team works with CCDPH departments to create a yearly project which directly ties to the goals and objectives outlined in our Strategic Action Plan, Contract Agreement Addendums with the North Carolina Department of Health and Human Services, the CHA, or other grant contracts. The QI Team hosts an All Staff QI training once a year to review the PDSA model and conduct a root cause analysis using the Five Whys and fishbone diagram techniques (**Appendix A**) with staff to identify areas of improvement. Each department or program uses the results of the analysis to identify and select a final project. Each program or department provides feedback by completing a detailed project description (**Appendix B**) that is reviewed with their QI Team representative. This project description provides an overview of their project, timeline for completion, evaluation plan, identified team lead, and desired project accomplishments for the department.

The QI Team reviews and approves project descriptions to assure projects are feasible, align with the CCDPH Strategic Plan and this QI plan, and identify opportunities for collaboration across health department programs.

Activity																	
Final Report on FY 19-20 Board of Health Goals																	
Strategic Planning Meetings	X	X	X	X	X	X	X		X		X		X		X		
QI Team Meetings	X	X	X	X	X	X		X		X			X	X	X	X	X
Staff training on PDSA model				X													
QI Team meets with each assigned department	X																
Staff Selection and Submission of Projects (first draft)		X															
QI Team Reviews Projects, provide feedback			X														
Staff Selection and Submission of Projects (final draft)				X													
Begin Projects						X											
Board of Health Meetings																	
Present Draft QI plan				X													
Present Final QI plan						X											
All Staff Meetings/Communication																	
Updates during weekly update/available for feedback (weekly update spotlight on projects?)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Written QI plan drafted		X															
Final strategic plan published						X											

Implementation and Monitoring of QI Projects

CCDPH staff will use the Plan-Do-Study-Act (PDSA) model to implement QI project. Plan-Do-Study-Act is an iterative, four-stage problem-solving model used for improving a process or carrying out change.

PLAN

The program or department will identify the problem or opportunity to improve and plan a change or test to improve. This step is often accomplished during an All- Staff meeting as described above.

DO

The program or department will test out their solutions, often on a small scale, and record data as they implement the change. This data may include pre and post records or questionnaires, photo records, project narratives, etc.

STUDY

The program or department will examine and review the results of their solution. They will study the data to determine if the solution worked and what goals were achieved.

ACT

The program or department will make a decision based on the results incorporating an identified solution into a workforce, policy, procedure, etc. During this phase, the program may also identify future needs for quality improvement including testing different solutions.

Each program or department should report back their progress to their QI Team representative. The QI Team will monitor the implementation of each departments or programs project during QI meetings. The QI Team can provide ongoing technical assistance to each area as needed. At the conclusion of the project, each program or department, should complete a project storyboard or similar tool to report the findings and lessons learned.

Communication Plan

To foster a culture of quality of improvement communication about QI efforts to CCDPH staff, the Cumberland County Board of Health, key stakeholders, and the general public is important.

CCDPH Staff

- QI updates are provided in the employee newsletter at least quarterly.
- QI updates are provided during all staff meetings as needed. This includes opportunities for programs and departments to report out completed projects our status of ongoing projects.
- QI meeting agendas minutes, and project descriptions are maintained on the shared drive for review by all staff members at any time.

Board of Health

- The Director or Deputy Director will provide updates on the strategic plan to the Board of Health on a quarterly basis. During this time updates on QI projects that are also linked to Strategic Plan will also be provided.

General Public/Community Partners

- QI efforts can be highlighted on the CCDPH website or social media along with updates on our Strategic Plan

Appendix A: Strategic Planning Team Documents and Worksheets

Sample Internal Tracking Spreadsheet

Priority 3	Improve health literacy through expanded communication platforms and school outreach efforts
Goal 1	Improve health literacy through expanded communication platforms
Objective 1	By July 2022, 100% of school health nurses will have access to the Language Line via mobile devices to use in the schools
<i>Strategy 1</i>	Assess current funding and grant opportunities to supply the mobile devices.
<i>Strategy 2</i>	Train school health nurses on using the Language Line
Objective 2	By June 2021, CCDPH will provide chronic disease information on at least two platforms for community members to access
<i>Strategy 1</i>	Utilize EHR for patients to contact with questions about their medications, etc., and send out a easy to understand breakdown document for the patient to use
<i>Strategy 2</i>	Create a FAQ section on the website for chronic condition questions (hypertension, diabetes, substance misuse, etc.) most prevalent in Cumberland County
Objective 3	By December 2021, at least 50% of printed materials will be at no higher than an 8th grade reading level and in both English and Spanish
<i>Strategy 1</i>	Establish materials and handouts for clinics to utilize when discussing conditions with patients in both English and Spanish
Goal 2	Improve health literacy through outreach efforts
Objective 1	By June 2022, include at least one health literacy question on the Community Health Assessment
<i>Strategy 1</i>	Fireside Chats quarterly that will address health concerns, strategies for improvement and available resources
<i>Strategy 2</i>	Implement evidence-based health literacy interventions https://www.countyhealthrankings.org/take-action-to-improve-health/what-works-for-health/strategies/health-literacy-interventions
<i>Strategy 3</i>	Promote health literacy videos on social media/play in waiting rooms (Questions to Ask Your Doctor) https://www.ahrq.gov/questions/index.html
<i>Strategy 4</i>	Distribute health literacy materials to provider offices
<i>Strategy 5</i>	Distribute health literacy materials for churches, community agencies and nursing homes

Person Responsible Worksheet

Priority # Internal or External	Goal	Objective #	Who's Responsible	Resources Needed

Sample Internal Priority Spreadsheet

Priority: Increase staff recruitment and retention, assess employee satisfaction and improve morale			
Goal: Increase employee satisfaction			
Objective:			
Internal/External Partners Needed		Resources	Group Responsible
Internal	External		

Sample External Priority Spreadsheet

Priority: Increase partnerships and collaboration with groups from various sectors, including academic, military, healthcare and faith-based organizations			
Goal:			
Objective:			
Internal/External Partners Needed		Resources	Group Responsible
Internal	External		

Appendix B: Q1 Team Project Description

Project Title:	Submitted By:
Date Submitted:	Department Name:
Objective:	Estimated End Date of Project (2021):
Briefly identify or describe the program, project or process that should be addressed (focus in on the problem):	
Project Identification: a. How did you determine that this was an issue for your department? b. What resources and support will be needed to complete the project?	
What are we trying to accomplish? (A brief goal statement)	
How will we know that a change is an improvement? (These must be SMART objectives: Specific, Measurable, Achievable, Realistic, and Time bound) Long term: Medium term: Short term:	
What changes do you want to make that will result in an improvement? (Initial hypotheses and description of data needed to focus the project and the development of an intervention)	

How will you evaluate your project over the next 6-9 months?

Who is your QI Technical Assistance?

Who from your department will help lead this QI project?

FOR OFFICIAL USE

Reviewed by QI Team

Date Reviewed:

Comments from QI Team:

Approved by QI Team

Date Approved:

Appendix C: 2021 Year End Summary

TEAM Dr. Jennifer Green, Administration
Ashley Curtice, Administration
Kelly Smith, Administration
Ann Thomas, Adolescent Parenting Program (APP)
Irene Zemplachenko, WIC
Hope Monroe and Sharon Batten, WIC
Monica Short-Owens, Medical Records
Marcia Harvey, CC4C/PCM
Dr. Haigler, Administration

In Summary

Implementation of the 2021-2022 Cumberland County Department of Public Health Quality Improvement Plan began in 2021. This was the first year for which the Health Department implemented one Quality Improvement project per department or division rather than one to two projects agency wide. Results varied by department and overall, a lot of programs did an intensive amount of preparatory work. Below summarizes examples of some of the completed projects and evaluation.

Grants Programs

Project Aim Strengthening coalitions and participation throughout the region.

Staff working on grants worked to increase participation in their individual program coalitions. Tobacco control and prevention for region 6 saw an uptick in participation from approximately 15 coalition members to 40 members. The meetings were moved to virtual to ensure that those unable to travel during COVID-19 could still participate. A letter of support was developed and signed by each member and pins were given to encourage investment in the group.

Human Resources

Project Aim Work to redact applications for hire by removing identifying information to ensure a fair and equitable process.

Cumberland County Department of Public Health (CCDPH) Human Resources implemented a blind application process by redacting all personal identifying information from applications that could contribute to bias. A breakdown of staff demographics can be found in CCDPH Workforce Development Plan [here](#).

Health Education Division (HED)

Project Aim At least 95% of all attendees of New Hiring Orientation will be aware of the HED and the number to call for more information.

CCDPH Health Education Division presented information about the team and their roles and how each position connected to clinic linking within the agency and outreach to support the department. Initiatives and awareness campaigns were described along with public reports the division is responsible for. New hires were solicited for feedback on information provided and understanding of using the team as a resource with regards to their new role. Results of a post orientation survey indicate 100% of new employees are aware of the HED division and the phone number to call for more information.

Medical Records

Project Aim The Medical Records staff aim to transition from paper to electronic records while staying in compliance with the North Carolina retention policy.

A survey was completed in the Maternity/Family Planning clinics over the course of six months. The initial findings were that no shows were due in part to social determinants of health, including lack of transportation. This result will inform the next phase of the Family Planning QI Project to update and implement the clinic late policy to accommodate patients, while reducing wait times for patients arriving on time. The majority (59.5%) of patients indicated they would like to receive their flu and Tdap vaccination during appointments the Maternity Health Clinic. These results will inform the next phase of the Maternity clinic QI project to provide immunizations during clinic, rather than making a referral for patients to be seen on the immunizations clinic.

Maternity/Family Planning

Project Aim Survey clients to see what their needs are, factors impacting long wait time and and high no show rates.

A survey was completed in the Maternity/Family Planning clinics over the course of six months. The initial findings were that no shows were due in part to social determinants of health, including lack of transportation. This result will inform the next phase of the Family Planning QI Project to update and implement the clinic late policy to accommodate patients, while reducing wait times for patients arriving on time. The majority (59.5%) of patients indicated they would like to receive their flu and Tdap vaccination during appointments the Maternity Health Clinic. These results will inform the next phase of the Maternity clinic QI project to provide immunizations during clinic, rather than making a referral for patients to be seen on the immunizations clinic.

Child Health

Project Aim One Aim worked on by Child Health was to eliminate rotation of administrative support staff to other clinics.

Management decided to allow the staff person that was proficient in the clinic to remain, and no longer rotate out which helps the workflow and confidence of the administrative support staff.

Appendix D: 2022 Year End Summary

- TEAM** Dr. Jennifer Green, Administration
Ashley Curtice, Administration
Kelly Smith, Administration
Alba Natale, EPI/STI
Monica Short-Owens, Medical Records
Marcia Harvey, CMARC/CMHRP
Regina Williams, Administration

In Summary

Results varied by department and overall, a lot of programs did an intensive amount of preparatory work. This year, some projects were completed from rolling over from 2021. Below summarizes examples of some of the completed projects and evaluation.

Administration

Project Aim Improve communication within the health department in order to project transparency and trust which will ultimately improve moral, employee engagement, and retention.

A health department-wide survey was completed over the course of 9 months attempting to ascertain the preferred method of communication between senior leadership and health department staff as well as the overall satisfaction of the health department share drive. Over 1/3 of health department staff participated in the survey which led to the successful implementation of revisions and near total weekly use of the Weekly Update. This project also was successful in improving the overall aesthetic and accessibility of the share drive.

Human Resources

Project Aim Improve the overall success of the Cumberland County Department of Public Health through recruitment and retention of top-tier employees.

The Human Resources Department increased their efforts in promoting job vacancies through in-house communication, social-media platforms, and job fairs by the end of the project period. The overall increase in job applications exceeded expectations by 6% (total of 11% average increase) with a projected goal of 5%. Several job fairs were held in and around Cumberland County leading to recruitment of several open positions throughout the health department.

STI Clinic

Project Aim To evaluate and establish factors impacting the high rates of missed appointments in the STI Clinic.

Missed appointments in the STI Clinic in 2022 averaged at around 30%. An in-house survey was given to patients attempting to ascertain and evaluate mitigating factors affecting missed appointment rates. The results were difficult to discern as the survey was given to those who were in clinic versus those who missed appointments. The most popular response "symptoms were better" (N=48) indicated further research was necessary to get to root cause of missed appointments. This project would benefit from repeated assessment through mailing surveys to patients who missed appointments and evaluating those responses for future improvement.

Grants Programs

Project Aim The Tobacco, Opioid and Triple P programs are working to grow their network and get the community members more involved and engaged in their programs.

These groups worked to increase their involvement in programs by using the basecamp app. Basecamp has allowed the groups to track all tasks, collaborative events, files, discussions and announcements that are happening around their work in the region. This app has allowed the groups to be more engaged in the region activities, and get more involved in their projects.

Housekeeping

Project Aim Color Coding for Clinical Safety

The housekeeping staff worked on door hangers that are color coded to identify potential hazards in the room for housekeeping staff. MOA's or providers were tasked to add the date and time to the door hanger and provide the time and date the potential hazard occurred in a log. When a situation occurs, they then notify the Facilities Maintenance Coordinator to set up a time to have the room disinfected. MOA's are still responsible for cleaning and sanitizing their areas for normal use, and housekeeping is only used for potential hazards. This method helped to improve communication between clinic staff and housekeeping staff to cut down on spreading infection.

Health Education Division (HED)

Project Aim Improve public understanding of what Health Education Division does, how HED serves as a resource to community and HD clinics, and improve outreach/information requests process

CCDPH Health Education Division Supervisor routinely conversed with public requestors of team presence to provide information about the team service that could be provided before approving outreach.

Public individuals or groups requesting educators to table, present, or participate in events were required to complete the Community Health Education Request Form (CHERF). Without a CHERF on file, no request was considered or confirmed. This reduced the time spent placing calendar holds for events that had not been confirmed, improved understanding of what was being requested and/or what an event's purpose was prior to attending; allowing for better preparation by educators in packing materials, flexing time, or planning presentations.

Information requests were not as strictly required to meet the 2 weeks in advance deadline, however same-day requests were no longer honored (minus one or two occasions as a one-time courtesy and educated the patron on our process). This allowed time for preparation of materials, more thorough resource allocation, and communication amongst team members regarding needs for supplies. This also allowed for better customer service as frustration usually arose in times of drop-in requests seeking immediate approval and provision of incentives/pamphlets that broke into time staff were completing other tasks and/or unsure of which items were available.

Medical Records

Project Aim Medical Record Department to streamline all documentation form registration to get rid of actual paperwork and stored documents and have everything done electronically while staying in compliance with the North Carolina Retention policy.

Medical records are now working with Cure MD system to eliminate paper and stored documents. They are now scanning new medical records in the system. Also, the staff are now working with EHR system-a placement portal to eliminate consent forms. All stored medical records in boxes are now completely scanned. CCNC staff helped to scanned COVID-19 records in the system. All Items of concerns are now completed.

Maternity

Project Aim The aim of the Maternity QI project was to provide required prenatal immunizations for Tdap and Flu on the Maternal Health Clinic, rather than referring the client to the immunization clinic.

This option will promote timely compliance and more efficient care for the client. Data loggers and refrigerators were purchased to store the vaccines and monitor temperatures. Immunization staff provided technical assistance for vaccine inventory and storage. In May 2022, the Maternity Clinic staff completed training to provide Tdap and Flu in the Maternity Clinic. Administration of Tdap vaccines began in June 2022 and distribution of Flu vaccines began in October 2022. Maternity staff were able to give 32 Flu vaccines (from October 1, 2022- today) and 77 Tdap vaccines (from June 1, 2022-today) for maternity patients seen on the clinic.

Child Health

Project Aim Reduce no show rates in the Child Health Clinic.

At times, patients are unable to attend scheduled appointments due to transportation issues. To address the concern the providers will conduct telehealth/telemedicine if they are eligible. The clinic coordinator also assures that patients are given several reminders of their appointment dates and times. There are two automatic call reminders that go out one a week before the appointment and another a day before the appointment and then it is followed up with a text. This combined with the new transportation pilot service with Uber Medical, there has been a decrease in clinic no shows in the year 2022.

Immunizations

Project Aim Reduce the amount of paper being generated and used in the clinic.

There were many redundant forms to fill out before a patient would receive their vaccine. This process was streamlined and many of the forms were merged into one form, minimizing the length of time used to fill out the documents. Additionally, instead of the patients having to write out their needed vaccines on a request form, all the vaccines were added to the one form with a box they can check off. For patients with difficulty reading, the nurse in the clinic will assist them with the form once the patient gets to the back, before administering the vaccine. Also, to assure accuracy and to continually streamline the clinic processes, the nurses in the vaccine clinic immediately input all the vaccines administered directly into the patient's electronic health record which helps eliminate errors.

Appendix E: 2023-24 Summary

- TEAM** Dr. Jennifer Green, Administration
Tamra Morris, Administration
Kelly Smith, Administration
Monica Short-Owens, Medical Records
Alba Natale, EPI/STD/STI Clinics
Marcia Harvey, CMARC/CMHRP
Abigail Engman, Maternity
Kamilah Adediran, EPI
Tia Castille-Moore, Medical Office Assistant

In Summary

Results varied by department. Programs did an intensive amount of preparatory work. This year, some projects were completed from rolling over from 2022. Below summarizes examples of some of the completed projects and significance of each process.

Administration

Project Aim Improve the accessibility and application of the Cumberland County Department of Public Health’s internal forms which can lead to more efficient and streamlined processes, increase user satisfaction, and increase compliance with departmental policies and procedures.

The administrative personnel diligently organized the shared drive utilized by all Cumberland County Department of Public Health staff. They systematically archived older versions of forms and ensured the inclusion of updated versions, complete with revision dates. Additionally, the administrative team proactively created a user-friendly cheat sheet to facilitate easy navigation for staff, aiding them in locating the most used forms efficiently.

Human Resources

Project Aim Conduct a comprehensive analysis to identify key factors influencing staff retention and recruitment while simultaneously assessing various areas for needs improvement to enhance the overall working environment and employee satisfaction.

Human Resources staff completed “Stay Interviews” with 41 staff at strategic intervals within a new hire’s first year. The Human Resource Department successfully identified both strengths and weaknesses that significantly influenced staff morale and satisfaction. The systematic collection of data during this period played a pivotal role in understanding the specific needs of the staff, enabling leadership to make informed decisions and implement targeted changes. The number of vacant positions was reduced from 62 positions in December 2022 to 50 positions in December 2023.

STI Clinic

Project Aim To ensure continuity of care and to provide good customer service to patients.

The STD/STI clinic collaborated with other departments including Health Education and the Teen Wellness Clinic to ensure all patients needing their services are receiving them in a timely manner. These teams have collaborated to provide education and STD testing during more than 22 outreach events and testing over 220 citizens for STIs and providing prophylaxis and education. Areas include Fayetteville State University, Vax Your Self/Pet, Pride Fest, Operation Inasmuch, Kingdom Impact, FTCC as well as with partnerships with Health Education, C-FORT, EMS, Adolescent Parenting Program, and others.

Enhancing communication across clinics ensured patients in Women's Health and Teen Wellness receiving real-time STD testing instead of patients being scheduled for an additional appointment in the STD/STI services. The communication, collaboration and care these clinics have for the patients has ensured positive results for patients and the employees providing the services. The clinic has also established MOUs in facilities such as Inasmuch and Fayetteville State to increase testing efforts and have participated in podcasts and radio spots to educate citizens on STIs including HIV and syphilis.

Medical Records

Project Aim To reduce paper and by transition from paper to electronic records.

The Medical Records staff aimed to go paperless while staying in compliance with North Carolina records retention laws. In years past, Medical Records hired Advanced Imaging Services to scan and electronically file five years of patient medical records documents. The team utilized those methods for internal mass document scanning. A quality assurance process was completed to verify documents were accurately scanned. The original paper document and was then destroyed by a shredding company to eliminate the paper records. Medical Records staff are now able to electronically retrieve patient records much faster than before which saves time and provides excellent customer service.

Epidemiology Clinic

Project Aim Improve patient and staff safety and efficiency in the Epidemiology clinic.

Staff in Epidemiology are required by law to observe patients take required medication for specific communicable diseases. In the past, this was accomplished through in-person in-office or in-home visits. During Covid, staff successfully developed and implemented policy to use Video DOT (Video Directly Observed Therapy). Video DOT allows staff to observe patients taking their required medication using video chat. Since then, the policy has become more streamlined and is now the primary practice for observing patient's take medication when they are in isolation or cannot come into the office. Patients who do not have electronic communication devices are provided one by the agency so as not to create a barrier. This process has eliminated staff travel and helped to increase safety for all.

WIC

Project Aim Increase WIC enrollment through increased outreach and education at grocery stores.

In summer 2023, the Ft. Liberty Public Health Partnership was awarded funded from the Food Research and Action Center (FRAC) for the WIC Community Innovation Outreach (CIAO) Project. Funding supported the hiring of a WIC Outreach Coordinator to expand WIC Outreach on Ft. Liberty and in Cumberland County. Funding was available to purchase additional outreach materials. On the installation outreach events were conducted at Commissaries, during Family Readiness Group (FRG) meetings, Corvias (housing on the installation), Morale, Welfare and Recreation (MWR), Armed Services YCMA, Womack Maternal Health Fair, etc. Off the installation, WIC outreach opportunities included Fun in the Sun, Vax Your Pet Vax Yourself, Mommy and Me, NC Baby Expo, Healing Hurting Families, and Kingdom Impact.

The average WIC participation for fiscal year 2022-2023 (July 2022-June 2023) was 11,843 patients (99.64% of the department's assigned caseload). In the second half of 2023, the average WIC participation decreased to 11,290 participants (94.99% of the assigned caseload). Statewide participation also decreased as the public health emergency ended and WIC visits returned in person. WIC Outreach in grocery stores and other locations will continue to expand in 2024. The Ft. Liberty/Cumberland County Food Policy Council will continue to provide feedback on the WIC outreach plan and look for opportunities for improvement.

Environmental Health

Project Aim To improve customer experience and reduce office, phone and email traffic by improving the environmental health website.

Environmental health staff updated their webpage to provide valuable information, forms, applications, and resources online; reducing the need for individuals get these in the office. The office also utilized temporary staffing assignments to aid in clinic flow, responsiveness to client requests, and improvement of the filing system to help reduce backlog. This effort was thereby working toward achieving excellent customer service. The Environmental Health website was completed 2023 with customer self-help services. The customers are now able to go on the website and download specific permit such as food mobiles, tattoo shops, restaurants, schools, childcare, hotels, sea food market and daycare.

School Health

Project Aim Increase the number of required kindergarten health assessment submitted timely and increase the number of kindergartners who have received all required immunizations.

North Carolina law requires all kindergartener complete a health assessment and receive specific immunizations with 30 days of enrollments. Solutions that worked for the 2022-2023 school year, despite the data collection being incomplete, included: Staff increased awareness of state requirements for health assessment and immunizations with teachers and parents by sending letters home to Pre-K parents advising them of the state requirements and resources available.

In 2024, staff will increase efforts to educate parents, teachers, and related agencies such as day cares and pediatrician offices about state requirements by sending informational flyers about the requirements. All four-year-old Pre-K parents will also receive the information.

Housekeeping

Project Aim Reduce the volume of solid waste collected at the health department.

Each week, housekeeping receives a significant number Styrofoam containers for temperature control medication causing excess solid waste in the department's dumpsters and ultimately the County landfill. Housekeeping staff aims to partner with the county Solid Waste Division to formulate a Styrofoam recycling project. The proposed project includes placing "Styrofoam only" dumpsters at the health department. A specialized machine will break down the Styrofoam, which can then be recycled by Solid Waste back to a facility. The Solid Waste Division is exploring grant opportunities to fund the project.

C-FORT

Project Aim To form a sub-committee of direct service providers that will collaborate to offer joint outreach and help improve linkage outcomes.

There were two community events held with C-FORT members and community paramedics in low-income communities. The events served 60 persons and had more than a dozen community partners present. These events paired well and provided testing, hygiene products, and connection to services. Staff surveyed recipients to assess what services they want to see at other events that would benefit them mostly. More events are being planned for 2024.

Triple P

Project Aim The focus is on improving the program's return on investment (ROI), where the investment is the cost associated with sending potential practitioners to trainings and the cost of Triple P materials and the return is the number practitioners that are reporting implementation data.

Triple P has seen an increase of practitioners going to training and not implementing the program, leading to a downward trend in ROI. Triple P changed their application to request Triple P practitioners estimate the number caregivers they expect to serve in a year. In addition, Triple P has revised their agreement with providers to include an expectation that Triple P services are integrated into their current scope of work. Triple P staff are tracking data that is submitted quarterly by practitioners to see if there is an increase in Triple P services provided. This total, compared to the number of trained practitioners and their estimated number of caregivers served, should increase over time. The expectation is to see an increase in data being reported which would show a positive affect or increase in ROI. This plan is still being implemented and will be carried into 2024 to get an accurate number.

Tobacco

Project Aim To increase tobacco referrals in the health department clinics through the electronic health record (EHR), CureMD.

This project has been initiated and will continue on through 2024. The project will focus on Memorandum of Agreement so that services can be integrated with CureMD and EHR. Training of staff is underway, as well as getting cost estimates for materials. The team is investigating why some agencies are not reporting, as their focus is to increase referrals overall.

Appendix F: 2024 Summary

TEAM	Dr. Jennifer Green, Administration
	Tamra Morris, Administration
	Kelly Smith, Administration
	Monica Short-Owens, Medical Records
	Alba Natale, Public Health Nursing Supervisor
	Regina Williams, Administrative Assistant
	Marcia Harvey, CMARC/CMHRP
	Kamilah Adediran, Epidemiology
	Megan Butts-Jenkins, Public Health Nurse III
	Abigail Engman, Public Health Nurse III
	Daniel Ortiz, Environmental Health Director
	Samantha Tillman, Health Education Division
	Sara Six, Public Health Nursing Supervisor
	Sanquis Graham, Local Public Health Administrator

In Summary

Division achievements across the department varied. Some programs initiated new solutions and others built on to current processes for overall improvement. Below are summaries of the progress made and relevant impact in a selection of programs/services.

Administration

Project Aim **Improve processing of travel requests with the Finance Division to be more efficient and limit delay in travel advance or reimbursement funding.**

Accounting specialists in the Finance Division designed a training for staff on submitting travel advances or requests for reimbursements. Finance staff provided the correct steps for all staff to take when submitting forms to the Finance Division and recorded a step-by-step PowerPoint presentation to walk through travel forms. This on-demand training will serve as a resource for new hires as well as careered staff that need a refresher to reduce the instances of corrections needed to travel paperwork and delay of travel advance or reimbursement funds. This process was effective in that it provided the Finance Division an opportunity to review common mistakes and clarify purpose and precise nature of forms. This aim was successfully implemented, and the project concluded with video being stored on Shared Drive.

Human Resources

Project Aim Identify factors that affect staff retention using “Stay Interviews”.

HR conducted Stay Interviews with new employees at 30 days, 60 days, 90 days, 6 months, and 1 year time frame. Using this tool, HR was able identify common themes amongst new staff members that affect their overall satisfaction with the LHD and assess what areas need to be addressed and improved. The “Stay Interviews” conducted by the Human Resources Department at CCDPH have proven to be a successful initiative, with mostly positive feedback from staff. By engaging new employees in candid conversations, HR was able to identify key factors influencing staff retention and overall job satisfaction. Common themes emerged highlighted areas of strength, as well as opportunities for improvement. This valuable data will enable the department to develop targeted strategies aimed at enhancing employee engagement, retention, and workplace satisfaction, ensuring a positive and supportive work environment for all staff members.

Health Education

Project Aim Increase health education awareness in the community to include an increase in boots-on-the-ground and advance promotion of program services.

CCDPH Health Education program and event participation numbers had been lower than expected in the previous year. The Division chose three forms of action to increase participation: utilize a digital community awareness calendar in Outlook, schedule calendar events with a three-month lead time, and improve our community presence with increased boots-on-the-ground. This project has been and will continue to be evaluated using responses from the educational program surveys and tracking data from the Health Education Division Report Log. Supervising staff have already seen an improvement in the community collaborations established in result of this project.

Environmental Health

Project Aim Cumberland County Environmental Health Childcare Program developed a Quality Assurance (QA) program to ensure that childcare facilities meet health and safety standards, providing a safe environment for children.

The QA program aims to monitor and improve the quality of services, promote compliance with regulations, and identify areas for continuous improvement. A structured QA program allows for regular inspections and evaluations, ensuring compliance with state and local health regulations. The program was designed to identify and address potential risks before they become serious issues, thus minimizing the likelihood of disease outbreaks or accidents. By implementing this program, the county seeks to enhance the overall well-being of children in care, reduce risks, and support childcare providers in maintaining high operational standards. Moreover, the program fosters collaboration between environmental health professionals and childcare providers to ensure that care standards are met effectively. Ultimately, the QA program was developed to promote a safer, healthier environment for both children and staff in Cumberland County’s childcare facilities.

School Health

Project Aim Increase the number of kindergarten students who have completed the state required Kindergarten Health Assessments within 30 days of the first day of school.

All kindergarten students entering North Carolina Public Schools for the first time are required to submit a Health Assessment Transmittal form in the first thirty days of school. A Back-to-School information sheet was created and printed. The information on the sheet was intended to remind parents of the Health Assessment Transmittal Form submission form requirement. The information sheet was distributed to:

- All parents with children enrolled in Cumberland County Pre-K classes as of May 2024
- Staff working with the Children in the case Management for At Risk Children (CMARC) program; they distributed the sheet to fifty-four area pediatric and provider offices
- Area daycares
- The Health Department’s Child Health clinic

Number of students without the required health assessment as of the thirty-first day of school 2023	Number of students without the required health assessment as of the thirty-first day of school 2024	Change %
1651	*1708	10.63% more
*Data collected in October of each year by school health nurses for all Cumberland County Schools. In 2024, accurate data collection was significantly affected due to a newly introduced public school information database; school nurses did not have access to the data base and school staff may not have had correct enrollment data on the thirtieth and thirty-first days of school.		

School Health nursing staff worked to develop interventions to improve compliance rate. Barriers to compliance and suggestions for improvement were noted and the team made recommendations to have the same interventions, specifically the Back-to-School information sheet going forward to improve compliance.

WIC

Project Aim Enhance WIC customer service and increase WIC participation rates by establishing an information phone line.

The WIC division receives a high volume of daily phone calls resulting in longer wait times and unanswered phone calls for clients. While some phone calls are brief (changing or cancelling an appointment), other phone calls may require more in-depth staff support for the client (e.g. breastfeeding questions). WIC staff established an Information Phone Line separate from an Appointment Phone Line to more efficiently route customer phone calls and decrease phone wait times. A staff member was added to the WIC division to staff the Appointment Phone Line to efficiently schedule, reschedule or cancel appointments. Other staff members are dedicated to fielding phone calls on the Information Line (formula changes, questions for nutritionist, vendor support, benefit package questions, etc.). Client complaints about phone wait times and unanswered phone calls decreased.

WIC staff were able to increase the number of appointments that were scheduled. Along with increased outreach efforts, this contributed to increasing participation rates. The average quarterly WIC participation rates increased from 9,994 participants in Quarter 1 (October 2023-December 2023) to 11,354 participants in Quarter 4 (July-September 2024). The average participation rate increased from 81.5% in Quarter 1 to 87.9% in Quarter 4.

Triple P

Project Aim To improve the return on investment (ROI) by increasing the number of practitioners who implement in their agencies after participating in training.

In 2024 there were difficulties with balancing the number of trained practitioners with the number of practitioners who implemented the curriculum after receiving training. During training and in the memorandum of understanding (MOU) Triple P staff emphasize to practitioners 5-10% of the estimated caregivers served number should be affected by Triple P services monthly. Staff anticipated an increase in reported families served juxtaposed against the number of trained practitioners and their estimate of caregivers served monthly. This was tracked via an excel sheet. The excel sheet shows out of the 19 agencies where providers have been trained, 8 of them were able to serve approximately 258 families this past year, with seven agencies meeting their 5-10% monthly projected families' goal.

CMARC and CMHRP

Project Aim Improve a balanced caseload through enhanced staff recruitment and retention.

The CMARC program was short staffed four full time county social work positions in 2023. In addition, the CMHRP program was short staffed four full time county social worker positions and one temporary nurse position in 2023. This resulted in overwhelming caseload numbers for current social workers and nurses. The goal was to fill the open positions so current staff were not overloaded and to allow the program coordinator to supervise staff rather than perform the duties of the social workers. Implementation of the County Class and Compensation Study increased the minimum salaries of social workers. Human Resources staff participated in more than 8 job fairs to enhance recruitment of social workers. When available, nursing supervisors participated in in-person job fairs to talk to potential applicants. Care managers did some sharing of vacancies across their professional networks and the Department also utilized the Alliance workforce network to publish additional job announcements on their website. Specific paid social media posts were created to promote the vacant positions. By the end of 2024, CMARC social work positions were filled and two temporary social worker positions remain open in CMARC. All permanent positions were filled by end of 2023. At the end of 2024, CMHRP was fully staffed for permanent and temporary positions.

Epidemiology Clinic

Project Aim Streamline the process and improve efficiency through video Directly Observed Therapy (vDOT) appointments.

Tuberculosis patients (TB) are required to take a daily dose of medication observed by trained staff. Through vDOT, TB programs observe a patient ingesting TB medication through live video conferencing rather than completing an in-home or office visit. By using video conferencing, the safety of staff is ensured, but also saving valuable time that would otherwise be spent traveling to and from patients' homes. This change reduces the burden on staff, allowing them to spend more time on other important tasks. Additionally, it is great for patients too, as it offers more flexibility while still adhering to the necessary protocols for medication observation.

STI Adult Health Clinic

Project Aim Increase collaboration between the STD/STI clinic, Health Education, and the Teen Wellness Clinic.

This internal effort is making a difference in providing more comprehensive, timely care for patients. By working together, the clinics can streamline services and reduce the need for patients to come back for multiple visits. These clinics found that communication and a shared commitment to patient care are key components in making this partnership successful. The STD/STI clinic is kept informed of all outreaches, during which they have been able to conduct much needed testing. This has led to early detection of STDs and great patient care.

Lab

Project Aim Improve internal collaboration with Medical Records and Immunizations Clinic for client test results.

It was determined that the lab, medical records and immunizations needed to collaborate better between divisions to assure that patients receive their lab results timelier. Collaboration between the divisions resulted in a book to track requested labs and weekly follow up. Streamlining the lab result handling and communication between the clinic, medical records, and immunizations made a noticeable difference. Patients are now experiencing fewer delays and there has been minimal back-and-forth with lab result requests.

References

- 1 <http://www.ihl.org/resources/Pages/HowtoImprove/ScienceofImprovementTestingChanges.aspx>
Institute for Healthcare Improvement

Plan-Do-Study-Act (PDSA) is an iterative, four-stage problem solving model used for gaining learning and knowledge for the continual improvement of a product, service, or process.

- 2 Riley, W., Moran, J., Corso, L., Beitsch, L., Bialek, R., and Cofsky, A. Defining Quality Improvement in Public Health. J Public Health Management Practice 2010; 16(1)5-7.

- 3 <https://www.health.ny.gov/statistics/chac/docs/chaguide.pdf>

- 4 <https://www.cdc.gov/publichealthgateway/cha/plan.html>

- 5 <https://ctb.ku.edu/en/table-of-contents/assessment/assessing-community-needs-and-resources/swot-analysis/main>

- 6 Introduction to Quality Control, Kaoru Ishikawa