

# NEW EMPLOYEE ORIENTATION (NEOPHYTE)

## MAHONING COUNTY DISTRICT BOARD OF HEALTH, MCDBOH (OH)

### 14 FULL TIME EMPLOYEES



**PLAN**  
Identify an opportunity and Plan for Improvement

### 1. Getting Started

Public Health is a diverse field of practice. Individuals working in public health often have specialized training and are highly competent in their respective fields of study. However, MCDBOH employees have limited understanding of how the entire public health system in a community functions together in order to prevent illness and improve population health.

At the beginning of 2017, MCDBOH utilized a new employee orientation program titled "NEOPHYTE". This curriculum was developed in 2002 as a program that all new staff were to complete during their first year of employment. NEOPHYTE was intended to serve as an introduction to employment in public health. It included materials that were relevant to the new employee's job and the mission and values of public health. Management staff had oversight of the NEOPHYTE completion.

### 2. Assemble the Team

MCDBOH successfully secured LGEP grant funding which enabled the agency to contract with Strategic Leadership Solutions, a consultant for Lean/ Six Sigma training. The QI council selected a team of 14 employees which included one junior and one senior member from each of the following divisions; Administration, Environmental Health Division, Finance and Human Resource Division, Nursing and Community Health Division, Pathways HUB, Women, Infant and Children Division, and Laboratory Services Division. This QI team, along with Strategic Leadership Solutions, dedicated five full work days to the redevelopment of the NEOPHYTE curriculum using Lean/ Six Sigma and tools and processes.

### 3. Examine the Current Approach

MCDBOH employee survey results indicated that out of the 32 employees hired since 2012, only 14 (43.75%) completed the new employee training curriculum and none within their first year of employment. The low completion results were a concern and in order to address the issue, the first step was to complete a SIPOC. This allowed a broad overview of the New Employee Orientation process before looking at the detailed processes.

Suppliers	Inputs	Process	Outputs	Customers
Fiscal Personnel IT	Curriculum list Access to web Computer Spreadsheet E-Mail	Receive curriculum and directions	Employee ready to start orientation	Employee MCDBOH
Fiscal Personnel	Process Tracking		Re-invigorated employee Progress	Employee MCDBOH
Manager MCDBOH Website	Live websites Active links Access to material Time Outside training	Complete Training	Employee meets competency	Employee MCDBOH
Websites	Certificates Excel Certificates	Turn in Certificates	Hr Orientation complete	Employee MCDBOH
New employee Fiscal Personnel HR	Verbal Phantom spreadsheets	Darlene Enters in Spreadsheet	Employee ready Documented	Employee MCDBOH

Next, a process map was completed of the current NEOPHYTE system. This analysis included orientation processes undertaken by the Fiscal Officer, the New Employee, his/her Supervisor, the Employee's Manager, and the Administrative Specialist. The Process Map identified several critical delays in the process (denoted by the purple squares). Waste was also identified in several areas as noted by the orange symbols. The waste identified was:

- Underutilization
- Motion
- Transportation
- Over-processing
- Defects



### AIM Statement(s)

The QI Team's goals were to (1). Review the NEOPHYTE curriculum to determine if it remained relevant, and (2). Revise or replace the curriculum to ensure that MCDBOH would have an effective orientation program that could be completed in a timely manner. Specifically the QI Project Team determined that the MCDBOH New Employee Orientation Program will:

1. Support the new role of the employee and give an overview of the entire organization
2. Include a method of knowledge measurement prior to the training
3. Achieve a baseline competence across all public health competencies
4. Demonstrate a return on investment, and
5. Include the following measurable goals:
  - Improve completion rate of retained staff from 45% to 100% by 12/18/2017
  - Employee surveys will demonstrate that 80% of employees are satisfied or extremely satisfied with New Employee Orientation curriculum by 12/31/18
  - Improve managerial tracking of employee completion of Orientation Program from 50% to 90% by 9/17/2017
  - Every employee completing the New Orientation Program will achieve a minimum passing score of 70% for every module of the curriculum by 12/18/2017

### 4. Identify Potential Solutions

In analysing the process, the QI Team identified the following issues which they wanted to address: (1) currently no process for a person to test out of curriculum modules. (2) Not appropriate for all job classifications. (3) Potentially irrelevant and/or out-dated materials. (4) Accountability

Lacking. (5) Independent tracking cross-orientation. (6) Value? (7) No competency testing. (8) Current program doesn't accommodate individual learning style preferences.

An additional QI tool was used in order to further explore additional potential solutions to the problem. The Cause and Effect Analysis (Fishbone Diagram) analysed the 6Ms with Technology being substituted for Machine. Many of the same issues identified in process mapping are identified in the Cause and Effect Analysis. Three of the categories in the table below had most of the issues:

- Man - the completion and accountability issues
- Method – lack of flexibility, test of knowledge and accountability
- Materials – relevance, value, outdated

Man	Method	Technology	Materials	Mother Nature	Measurements
Not appropriate for all levels	Inability to test out	Outdated	Not appropriate for all levels	Job demands	Multiple tracking methods
Not completed	One size fits all	Not completed	Relevant	# of personnel hired at any given time	No measurement of competency
No managerial follow up	No managerial follow up	Multiple versions of same document	Outdated	Part time vs full time	Length of time to complete
Accountability	Accountability	Inability to test competence	Cross-orientation		
Cross-orientation	Cross-orientation		Of value?		
Different learning methods	Different learning methods		Different learning methods		
Not interested	Multiple versions of same document		Multiple versions of same document		
Too busy	Inability to test competence		Inability to test competence		
Documentation instructions unclear					
Multiple versions of same document					

### 5. Develop an Improvement Theory

Following the Cause and Effect Analysis, the team reviewed all 45 training elements contained in the curriculum. The team collectively determined that the outcome of a robust orientation program must be an employee that possesses a basic level of public health competence regardless of his/her prior work or field of study. The team then cross-walked each item in the current curriculum with the 2014 Core Competencies for Public Health Practice (<http://www.phf.org/corecompetencies>) at the Tier 1 level:

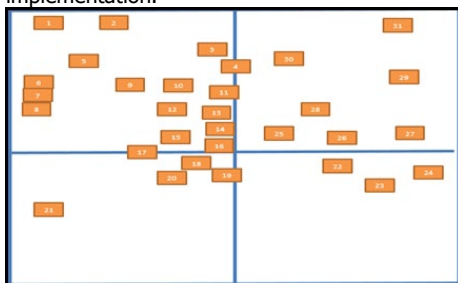
- Analytical/Assessment Skills
- Policy Development/Program Planning Skills
- Communication Skills
- Cultural Competency Skills
- Community Dimensions of Practice Skills
- Public Health Sciences Skills

- Financial Planning and Management Skills
- Leadership and Systems Thinking Skills
- Functioning in the Organization

The Decision Matrix below was created for this analysis. Each curriculum item was rated as to which competency the material addressed and how much of each competency it contained. With this analysis in hand, the team was able to identify materials in the curriculum that were extraneous or not relevant to public health practice and eliminated them from the curriculum. This process also revealed areas of competency which required more focused training options and intentionally sought such materials for inclusion in the New Employee Orientation Curriculum.

Process:	Output Variables	Analytical Assessment Skills	Policy Development Program Planning Skills	Communication Skills	Cultural Competency Skills	Community Dimensions of Practice Skills	Public Health Sciences Skills	Financial Planning and Management Skills	Leadership and Systems Thinking Skills	Functioning in the Organization	Ranking
Basic Public Health Science	1	1	1	1.5	0.5	2	2.5	0	1	0.5	10
Continued Quality Improvement in Public Health: The Fundamentals	1.5	4	0.5	0.5	0.5	1	1	1	1	0	10
IS000 - Intro to the Incident Command System	1	2	4	0	0	0	1	1	1	0	10

An Impact/Effort Matrix was then used to brainstorm all the possible solutions to improve the curriculum. The following image represents how 31 ideas were mapped within the matrix. 10 out of the 31 ideas were selected below as they would have a greater impact on the process. Underneath is a depiction of the matrix used and a list of the ten items that were selected for implementation.



1. Clear communication between employees, managers, HR about tracking orientation forms
2. Removing items that are deemed unimportant
6. Structure so can be done in a shorter time frame to reduce constant follow up
9. Give employee standardized brief with evaluation of each curriculum item
10. List of assignments with time to complete
11. Require managers to meet with new staff person within 1st month
12. Develop post-test for the orientation sessions
15. Separate file folder with all orientation documents for easy accountability and tracking
30. Managers need to be more hands on with tracking

31. Clean up computer drives and create folders for tracking new program completion

successful. Following repeat training, both employees successfully passed.

**DO**  
Test the Theory for Improvement

**6. Test the Theory**

At the completion of the Kaizen Event, a pilot study was conducted with 3 new employees that had just been hired. 100% (n=3) of the new employees completed the program within the 2 month requirement. Pilot evaluation data also indicated that 3 out of 3 employees were satisfied or extremely satisfied with all sections of the new employee orientation; the following table illustrates the survey results for each section.

New Employee Orientation Program Module	Ranking	%
National Incident Management System (NIMS)	> Extremely satisfied	0%
	> Satisfied	100%
Continuous Quality Improvement (CQI)	> Extremely satisfied	33.3%
	> Satisfied	66.67%
Social Determinants of Health	> Extremely satisfied	66.67%
	> Satisfied	33.33%
Public Health Legal Authority	> Extremely satisfied	66.67%
	> Satisfied	33.33%
Cultural Competence	> Extremely satisfied	66.67%
	> Satisfied	33.33%
Public Health Ethics	> Extremely satisfied	75.00%
	> Satisfied	25.00%
Epidemiology: The Science of Public Health	> Extremely satisfied	0.00%
	> Satisfied	100.00%
Health District Governance	> Extremely satisfied	66.67%
	> Satisfied	33.33%
Public Health Practice: past, present, and future	> Extremely satisfied	66.67%
	> Satisfied	33.33%
Safety/Emergencies	> Extremely satisfied	66.67%
	> Satisfied	33.33%

**ACT**  
Standardize the Improvement and Establish Future Plans

**8. Standardize the Improvement or Develop New Theory**

As a result of The New Employee Orientation QI Project, the QI Council identified key factors that contributed the success of this project and will be used in future projects.

Historically, even for large QI projects, MCDBOH QI project teams would convene 2 hour meetings during which the projects were discussed, assigned tasks were disseminated and future meeting dates were set. While the project teams were successful, too often this process permitted job responsibilities to overcome QI project responsibilities, which prolonged the QI project's completion. When planning for a project of this scope, the QI Council determined that a significant amount of dedicated time would be required to make this project successful. Thus, a five day intensive, immersion project was planned and executed.

Evaluation of this project indicated that allocating five full days of staff time, in succession, enabled all team members to truly engage in the work and fully concentrate on quality outputs and QI obligations without interruptions. In addition to dedicating days of staff time, the intentional selection of a larger team representing all divisions was critical to successfully revise a program that impacts all staff. This facilitated the inclusion of viewpoints from all job classifications into project decision making and enabled each team member to have a better understanding of division and individual roles in agency operations.

Lastly, this QI Project team very effectively utilized the Impact/Effort Matrix. This was recognized as a QI tool that should be considered when future projects are identified as having an impact on multiple divisions. This tool visually prioritized solutions based upon ease of implementation in light of limited time and resources. The Impact/Effort Matrix permitted the team to prioritize ideas and focus first on those that provided the greatest impact for a reasonable amount of effort.

These concepts have now been added to the MCDBOH QI Plan so that future QI projects and future teams are encouraged to consider a similar time allocation strategy when the scope of the planned project warrants.

**9. Establish Future Plans**

This improvement will continue to be monitored as new employees are hired at the Mahoning County District Board of Health.

**CHECK**  
Use Data to Study Results of the Test

**7. Check the Results**

The data collected were sufficient to conclude that the New Employee Orientation Program was effective. The measurable goals listed in item #5 of the Aim Statement were achieved and documented as follows:

- The New Employee Orientation Program completion rate increased from 45% to 100% by October 1, 2017.
- 100% of employees completing the New Employee Orientation Program ranked 100% of the curriculum modules as satisfied or extremely satisfied.  
The Pilot project participants rated 94% of new curriculum content as relevant to a comprehensive orientation to public health employment.
- Managerial tracking improved to 100% for the 3 employees that have completed the new orientation curriculum by 9/17/2017
- While each individual that completed the pilot project scored better than 70% overall, the objective requires a passing rate for every module. Only employee #1 score 70 or better on every module. Employee #2 failed two modules and employee #3 failed one module. Failure requires repeated training until