2015

DIRECTORATE OF HEALTH
-NATIONAL CATHOLIC
HEALTH SERVICE

ROBERTA ASIEDU

[FINAL REPORT OF THE NATIONAL CATHOLIC HEALTH TRAINING INSTITUTIONS IMPROVEMENT COLLABORATIVE]

JANUARY 2013-NOVEMBER 2015

TABLE OF CONTENT----------PAGES

BACKGROUND

In January 2013, the Health Directorate of the National Catholic Health Service (NCHS) brought together key stakeholders of the Health Training Colleges of the NCHS to a common platform to form an Improvement Collaborative Network (ICN). This ICN was aimed at Improving the Performance of these institutions at the Licensure Examinations. A careful study of the Pass Rates of these Colleges at the Licensure examination were not the best, it decline between the year 2008-2012; the average pass rate of the Licensure exams was 55% for instance, an institution recorded a high pass rate of 90% in 2008 and dropped to a of low of 28% in 2011. The Directorate felt the need to expose the training institutions to the Quality Improvement methodology after successful implementation of this approach in other areas such as reducing Under Five morbidities and mortalities and reduction in Claims Deductions submitted by the NCHS Hospitals and Clinics to the National Health Insurance Authority for reimbursement.

Furthermore, the ICN was also to be used to deliberate on issues that affect the day to day management of the schools both as a collective group and as individual institutions. The participants were introduced to the Continuous Quality Improvement (CQI) Concept to underscore its importance as a business strategy in the NCHS Whole System Transformation. Globally, there has been a growing interest by Health Care Leaders on the need to continuously improve on the healthcare delivery for better health outcomes and it is important that critical attention be given to the institutions that Produce Healthcare Personnel for the health system. The CQI uses measurements of quality "indicators" to initiate and drive organizational and attitudinal changes in a never-ending cycle of continuous improvement.

THE DESIGN OF THE COLLABORATIVE:

The QI methodology has been applied in the healthcare environment in the NCHS however the Introduction of the this approach in the Health Training Context and the collection of data on agreed indicators were heavily dependent on the academic calendars of the institutions involved. The institutions were brought together for an Improvement Collaborative Network (ICN) in a breakthrough series using Quality Improvement (QI) teams and Learning Sessions.

The need to put a team together in QI is very paramount and at the early stages of the ICN, participants were taken through the steps of Team Building and its benefits**.** A typical QI team for this collaborative comprises of the Principal- Management Sponsor, Academic Tutor/ Coordinator, Day to day Leader, 1 other team member (Academic/ Non Academic). In addition to these core members, the teams were tasked to expand in order to secure the buy in of more people to achieve the aim they have set for themselves. The Project Charter-basic description of the improvement work or project was developed. The QI teams were exposed to the QI methodology and tools which will enable them to identify challenges, come up with Change Ideas to address them and measure their performance.

The overall Collaborative Aim set was:

"To improve student pass rate in the Licensure Exams from 60%-100% by September, 2013"

Some institutional specific aims set were:

- Holy Family Nurses Training College, Nkawkaw-Improve the pass rate from 60%-98% by Sept. 2013
- Nurses Training College Jirapa- Improve the pass rate from 38%-90% by Sept 2013
- St. Patrick's Midwifery Training College –Improve the pass rate from 74.6%-100% by Sept 2013
- Jirapa Midwifery Training College – Improve the pass rate from 40-50% by Sept 2013
- Holy Family Nurses and Midwifery Training College, Berekum - 60%-80% by Sept. 2013

IMPLEMENTATION:

Learning Sessions (LSs): The introduction of the participants to the Improvement Collaborative through the LSs was in the right direction where the platform of shared learning was created and participants had the opportunity to meet, share experiences and go back to their various institutions to work towards the achievement of the set targets. This was also to afford the training institutions the opportunity to use the knowledge and skills in Quality Improvement methodology to address identified challenges or gaps in their area of work.

The institutional heads together with the QI teams were not going to work in a vacuum but rather they were guided by the use of QI tools such as the Pareto chart which enables one to know/ identify the 20% of factors that are responsible for the 80% failures within their institutions and thereby direct attention and resources to address this challenge and achieve the greatest impact.

Four (4) Learning sessions (LSs) were conducted during the ICN. At the LSs, each participating institution had the opportunity to do presentations on their QI activities and receive rich inputs/feedbacks from their colleagues and the facilitators in order to get their projects sharpened. During the ICN period, participants received supportive site visit during the Activity periods, coupled with emails and phones calls aim at supporting and directing the ongoing QI work.

Prior to the LSs however, there was as a **Pre- collaborative** meeting held in January 2013 with key stakeholders that sought to achieve these objectives:

1. *To introduce heads of Training Colleges and senior management to the basic concepts of QI*
2. *To guide participants to identify a project and develop a Charter for Improvement in their respective schools.*
3. *To agree on a road map for the ICN for the Training Schools.*

In addition to the above, the framework for change; Driver Diagram was also introduced.

These LSs saw participants taken through the Model for Improvement (MFI); the framework that guides improvement work and answers three key questions namely:

1. *What are we trying to accomplish?* This first part focuses on the AIM of the improvement work and where one needs to direct his/her attention and efforts.
2. *How will we know that a change is an improvement?* This section takes a look at the measurement for improvement. It is said that "what is not measured, never gets done" even as improvement interventions are carried out, it is important that indicators are developed around the interventions one seeks to achieve and periodically collect data and analyze to see the actual performance in relation to the agreed set Aim.

3. *The third component, what changes can we make that that will lead to an improvement?* All improvement requires effort and for that matter the right effort or interventions need to be pursued against the background of limited resources, it is imperative we put in the right efforts that will lead to improvement.

The MFI is carried out in conjunction with the **Plan- Do- Study and Act Cycle (PDSA)**. Quality Improvement postulates that in order to achieve a long lasting change in a system leading to improvement, it is important to introduce these changes in small rapid phases through testing. This is basically 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).

The basic QI tools for the diagnosis of challenges or problems one is confronted with and also help arrive at the right interventions leading to improvement include: **Pareto analysis**; in this context for instance, the QI teams identified individual subjects and how the students are faring specifically in each area and direct attention (resources and efforts) for improved outcomes- *Licensure Pass Rates of the various schools.* The **Root Cause Analysis/ Fish Bone Diagram**; this tool enabled the various teams to come up with the actual causes of the declining performances. The essence is to help the teams to come up with real interventions that address the issue at hand "declining pass rates in the Licensure exams" and not just the symptoms. In addition, one major aspect of the QI approach is to address system-wide issues that transforms into improvement. The **Process Map** is also one of the tools, it helps participants to have a general perspective of the system in which they operate looking beyond one's area of operation. The participants were tasked to map the processes of teaching and learning in their various colleges, this exercise elicited the bottlenecks in the teaching and learning processes, in the end however, they came up with an improved flow diagram for effective teaching and learning which was adopted by all the institutions. Please see Appendix 1.

The use of Data is vital in QI work therefore the participants were introduced to **Measurements in QI**; here measures were developed in line with the interventions and actions that have been agreed upon. Beyond collection of data on agreed indicators, one needs to analyze the data and

make meaning out of it and subsequently take informed decisions and also determine the level of improvement. A simple graphical tool called the **Run Chart** was introduced, data collected over an agreed period of time are analyzed to show whether there is improvement or otherwise as a result of the team's interventions or changes being introduced into the system.

The Final LS of the ICN was held in Koforidua at the Pastoral Training Centre from the 13th-15th July, 2015. The aim was to have a general overview of the use of the QI methodology in the NCHS health training colleges since its introduction and the impact on the training and production of Health Personnel. It also gave the Directorate of the NCHS the opportunity to assess what has transpired (Activity Period) at the institutional level during the period of the Collaborative.

Activity Periods

After each LS, participating training institutions in the ICN were expected to go back and carry out specific activities such as formation of the QI team with properly define roles for team members and fix time for QI meetings within the various institutions, debrief other team members and staff of what had transpired at the LSs, In addition, QI teams were tasked to share and apply the QI tools to address challenges they are confronted with that will lead to improvement in the processes of production of students fit to pass the Licensure examinations, The teams collected and analyzed data on defined measures for the project and also test the change ideas that has been proposed after which they can either adopt, adapt or abandon it if it not helpful at all within their system of operation.

Impact of the Introduction of the QI Methodology

1. **Developed Driver Diagram;** this is a framework of change which enables one to break the broad aim graphically into increasing levels of detailed actions that could be carried out to achieve a stated aim, in this case, achieving the overall objective of improving the Licensure pass rate. As a result of the ICN, one common driver diagram has been developed for all the health training colleges within the NCHS.

2. **Flow diagram for effective teaching and learning** has also been developed. Please see Appendix 2.
3. **Sustainability and Institutional Heads Commitment**

The Principals of the Health training Colleges developed document on their roles and responsibilities in moving the QI Agenda forward. Appendix 3

4. **Changed ideas:** There is a set of change ideas that has been tested in different institutions that has led to improvement. Kindly see appendix 4

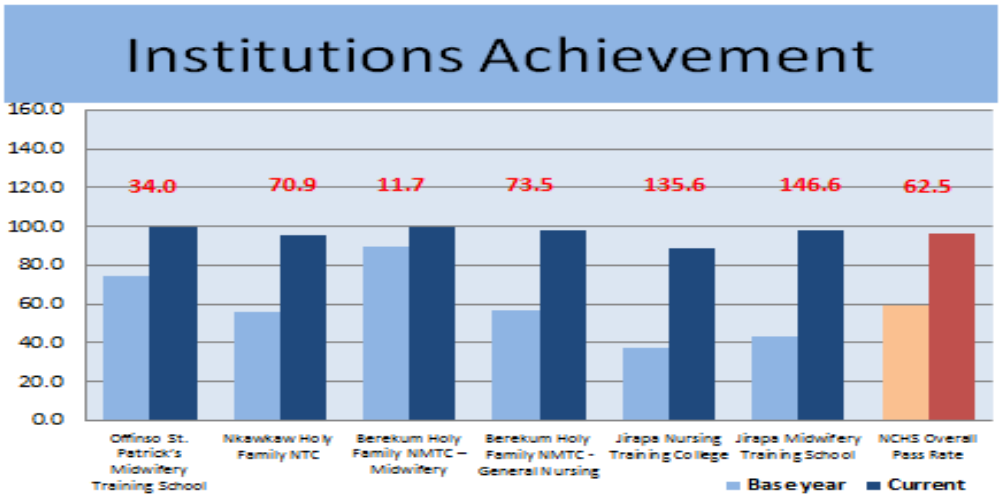
RESULTS

Outcome measure

The collaborative Aim that was set at the beginning of the ICN has improved from 60%-97% an increase of 62. 5%.

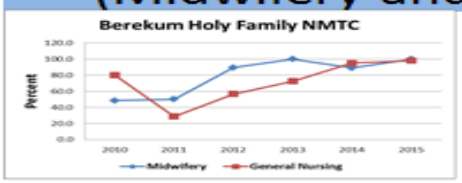
NCHS Training Institutions Achievement

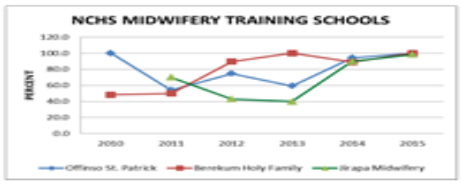
NAME OF INSTITUTION	2012	2015	Increase
Offinso St. Patrick's Midwifery Training School	74.6%	100.0%	34.0%
Nkawkaw Holy Family Nursing Training College	55.7%	95.2%	70.9%
Berekum Holy Family NMTC – Midwifery	89.5%	100.0%	11.7%
Berekum Holy Family NMTC - General Nursing	56.5%	98.0%	73.5%
Jirapa Nursing Training College	37.6%	88.6%	135.6%
Jirapa Midwifery Training School	42.9%	98.4%	146.6%
NCHS Overall Pass Rate	59.5%	96.7%	62.5%



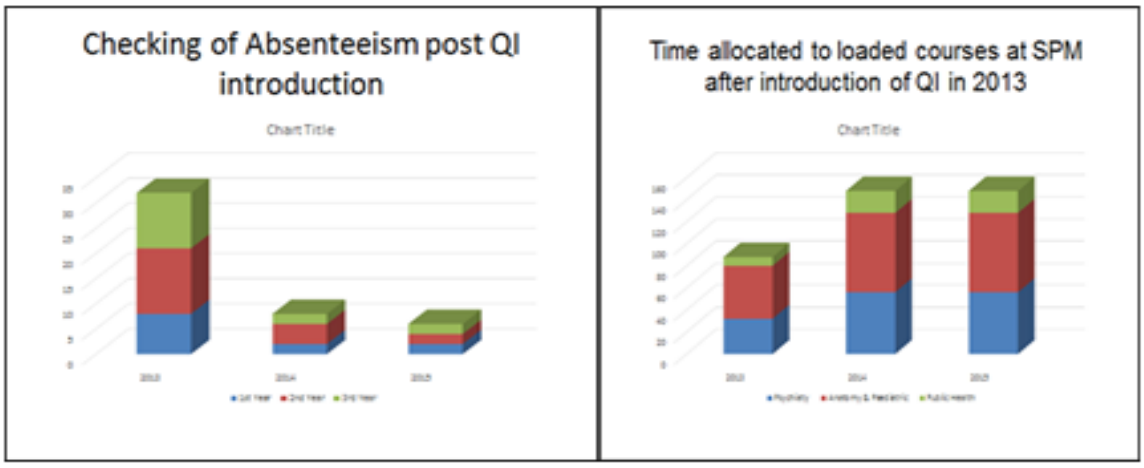
NCHS Training Institutions Performance

LICENSURE EXAMINATION PASS RATES (Midwifery and General Nursing)





Results on some Process Indicators



Challenges:

The major challenge encountered during the ICN was inability to carry out scheduled activity period site visits due to financial constraints. There is Lack of dedicated Data personnel to support the QI work in the various colleges compared to the QI work that have been carried out in the Hospital environment. Quality improvement is heavily dependent and it is data driven. This in no small way affected the monthly data the institutions were expected to send to the Directorate of the NCHS. In addition to the above, there was high attrition among some of the QI team members, others simply lost interest in the Improvement work.

Enabling Factors:

Supportive heads of the Institutions

Support from Directorate of Health

Next Steps:

- Continue with monthly data collection and analysis
- Provide continual support and guidance to the health training institutions.
- Come up with one Abstract on Colleges that performed well during the ICN.

- Publish the work in an identified journal or the NCHS system.

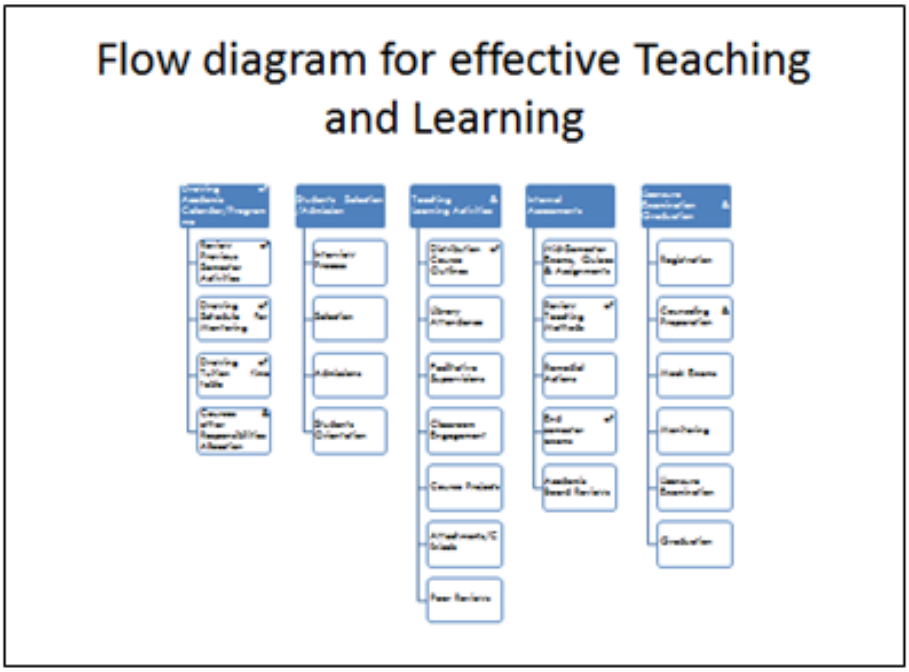
Lessons Learnt:

The peculiarity of the Academic Environment and the Calendar needed to be considered in coming up with aims and the collection of data on the agreed indicators. Data collections on most of the indicators were put on hold once school was on break.

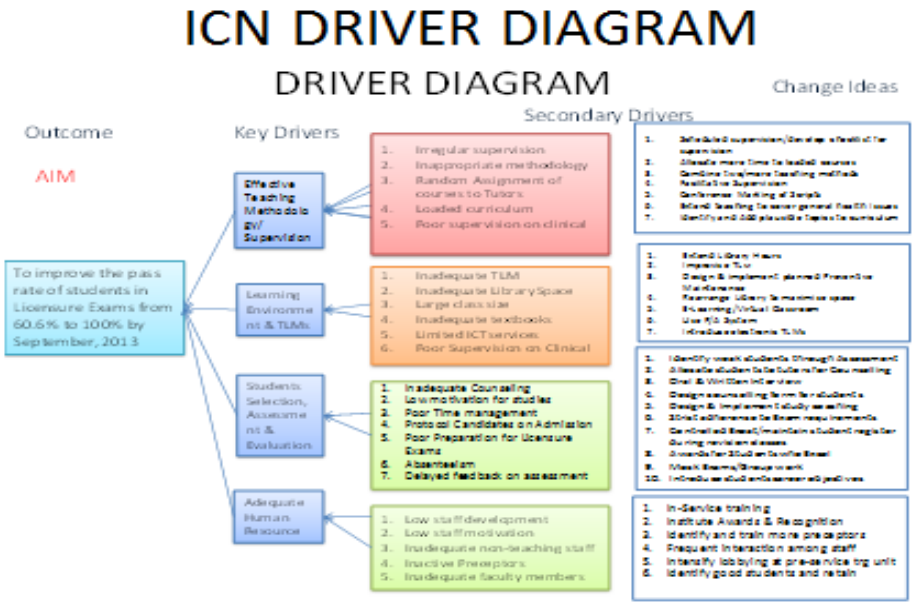
Conclusion:

Participants have been equipped with Knowledge and tools to view their processes of production, diagnose the problem areas and focus attention and resources on areas that need maximum attention that at the end lead to improvement in the performance of students at the Licensure exams.

Appendix 1



Appendix 2



Appendix 3 Change Ideas

CHANGE IDEAS 1

PROPOSED CHANGE IDEAS	TESTED
1.Conference marking	Use of PA system for large class
2. group studies	Conference marking
3.library usage	Monitoring of exeats
4.extension of library hours	Study group formation
5.facilitative supervision	Introduction of electronic TLMs
6. Tutors paired and provided with checklist	Oral and written exams for admission
7.sepeartion of loaded courses	Award of best students-theory/practicals
8. In-service training for tutors	Mock exams prior to NMC Licensure exams

CHANGE IDEAS 2

PROPOSED CHANGE IDEAS	TESTED
9. Feedback on students from preceptors	Introduction to E-Learning center
10. Revision for final years	Cooking for students
11. Criteria set for protocol admissions	Student eating in turns to maximize time and space
12.Inspection of student handbook	Counseling of weak students
13. Identification and counseling of weak students	Checking class attendance
14. Develop checklist for facilitative supervision	Monitoring student/tutor contact hours
15. Criteria set for protocol admission	Use of part-time tutors

Appendix 4: List of Facilitators (Directorate of Health, NCS)

1. Mr. George Adjei
2. Mr. Ivan Tettey Essegbey
3. Mr. Lawrence Ofosu Adjare
4. Roberta Asiedu

Appendix 5: List of Participating Health Training Institutions

1. Holy Family Nurses Training College, Nkawkaw
2. Holy Family Nurses and Midwifery Training College, Berekum
3. St. Patrick's Midwifery College, Offinso
4. B. P Orthotics Training College, Nsawam
5. Jirapa Midwifery Training College
6. Nurses Training College, Jirapa
7. St. Michael's Midwifery School, Pramso
8. Physiotherapy Assistant and Orthotic School, Duayaw Nkwanta
9. *Community Health Training School, Jirapa