

Optimizing Primary Health Care Practice

General Practice Medicine & Quality Improvement Strategy to Libya

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ABSTRACT

A New Health System was a call for all health care sectors to renew their focus on improving the quality and safety of patient care in all health care delivery settings. Quality methodology has been implemented in healthcare to fulfill a mission of enhancing the safety & satisfaction. The General Practice medicine (GP) and Information Technology (IT) have gained increasing attention across the healthcare prospects to sustain patient safety improvement and diminishing resources.

. The main objective is to improve performance of the district health system based on a family practice approach and information technology implantation, guided by the primary health care reforms. Accomplishing Universal Health Coverage through strengthening people-centered and integrated care services, and development of a family practice model at the district level of health service delivery in Libya

This basic coverage introduces Quality improvements (QI) concepts, strategy, and techniques which design primary healthcare GP & EHR implementation to achieve Meaningful Use, and improve the patient care quality.

. A district operations study describes the progress of the present health coverage through performance and competency-based assessment of facilities in Libya. As a first step; a situational analysis of the health services in **Azzawia** district was done, followed by Focus Groups Discussions (FGD) with various contributors before finalizing the action plan. The assessment of 46 certified PHC facilities performance found that: 47% accessibility to health care services, 46% package of services available, and 39% People centeredness of care services organized local planning, 24% follow up procedures, 17% on functional documented good practices and case studies evidences, 26% mechanisms for patient continuous care, 39% functional referral system and 15% Quality of care programs.

. concluding that through the QI methodology and GP & IT implementation; improving patient care, enhancing the healthcare facilities service, and achieving the expected outputs and desired outcomes of Universal Health Coverage.

Key words; Primary care Quality, General Practice 'GP', Electronic Health Record 'HER'; Health Information Technology 'IT', Focus Groups Discussions (FGD), continuous competency verification.

INTRODUCTION

seem to be on the increase as media reports indicate [1].

The main concerns in healthcare sectors around the issue of patient safety/satisfaction include minimizing patients' incidents, improving efficiency, enhancing patient and staff satisfaction, reducing waiting time [2][3]; effective care, protocol, referral pathway, and information technology (IT).[4]

The health care delivery system is overwhelmed with a variety of problems and even with the increased allocation to health care the right use of the system continues to be problematic and is evident from a variety of indicators: Critical staff are absent, essential supplies are generally unavailable, facilities are inadequate, and the quality of staffing is poor. Problems of supervision and accountability exacerbate the problems, while unethical practices

very minimal cost to all the citizens of Libya. Till recently there were few private hospitals in Libya. Health systems emerging from conflict are often characterised by disrupted and fragmented services with damaged infrastructure and limited human resources. The recent political changes in Libya have resulted in rethinking and renovation of many aspects of Libyan life. One very important service, which affects almost all of the population at some point of life, is primary health care.

The awareness of the importance of doing it as early as possible and accorded high priority for it with the help of expertise in the effort to plan and implement a long term policy and strategy for improving the health care services, taking into account of the needs and aspirations of the people of Libya while formulating any new policy and making any changes.

Azzawia district has been chosen for implementing the new health care strategy, as part of the effort to establish a modern, responsive and efficient health care for the whole country. The experience in Azzawia will help to try the various aspects of the new policy and fine tune it before implementing it all over the country.

health care and other services use to guide and manage CQI initiatives; • Guide the selection of the most appropriate CQI technique or strategy for the type and scale of improvements the practice is considering; and, • Provide tips to help the practice leaders adapt the approach, tools, methods, and processes to the unique CQI initiative and practice setting [7].

Continuous Quality Improvement (CQI) is a quality management process that encourages all efficiently? Can we be more effective? Can we do it faster? Can we do it in a more timely way? Continuous improvement begins with the culture of improvement for the patient, the practice, and the population in

The health care system has emphasized the design and implementation of health IT that supports quality improvement (QI) and quality monitoring mechanisms in all levels of the health care delivery system. Experience and research have shown that QI principles, strategies, and techniques are critical drivers of new care models such as Patient-Centered Medical Care Organizations. As practice leaders and staff learn more about QI strategies and work best for the desired level of changes in the practice (i.e., moving from the current state to the desired future state), they will recognize the value in redesigning an GP & EHR implementation to meet both the Meaningful Use requirements and their own QI goals [5].

EHRs can, if properly designed and implemented can capture the data efficiently and effectively, thereby transforming patient care in ways that might have been difficult or impossible with paper records. The search to use health information technology (IT), specifically EHRs, to improve the health care quality throughout the delivery continuum is a consistent goal of health care providers, policymakers, and health IT development [6].

The Health care services in Libya were fully provided by the government and at a

Background

This briefing provides an overview of CQI concepts and processes and will:

- Define CQI and how it applies to implementations and practice improvement strategies;
- Identify a conceptual framework to consider when implementing CQI techniques in a practice setting;
- Explore tools, techniques, and strategies that health care team members to continuously ask the questions, “How are we doing?” and “Can we do it better?”. To address these questions, a practice needs structured clinical and administrative data. More specifically, can we do it more

and vision for the desired future state. Tools commonly used in CQI include strategy that enables team members to assess and improve health care delivery and services.

state and how the EHR will change care delivery and QI aims. The QI plan identifies the desired clinical or administrative outcome and

focus and the steps and processes needed to improve those areas continually and iteratively.[9].

To establish an effective CQI strategy, a practice should:

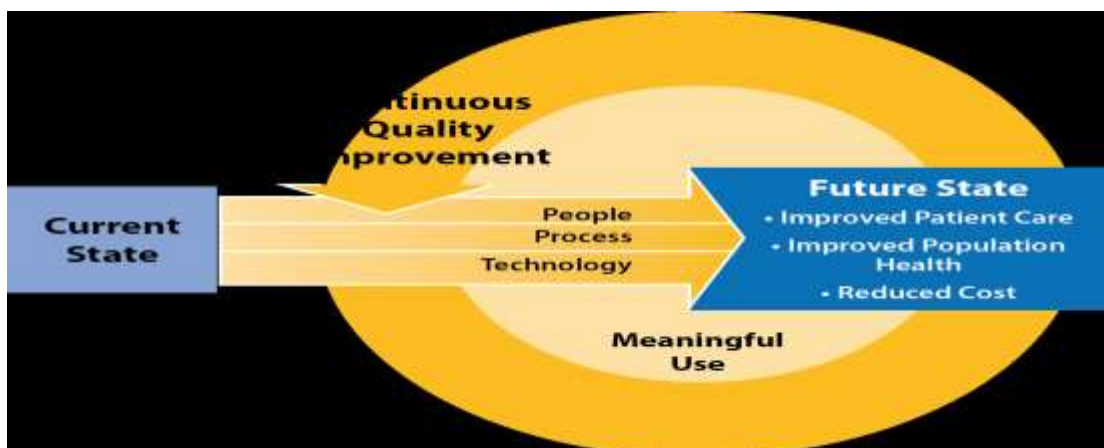
- Choose and use a formal model for QI.
- Establish and monitor measures to evaluate improvement efforts and outcomes routinely.
- Ensure all staff members understand the metrics for success.
- Ensure that patients, families, providers, and care team members are involved in QI activities.
- Optimize use of an EHR and health IT to meet Meaningful Use.

Together QI and Meaningful Use can move a practice from its current state to a more desirable future state. It involves a transformation of people, process, and technology. Meaningful Use of health information and an explicit commitment to QI can help a practice establishment and implement it successfully.

general. Besides creating this inquisitive QI culture in an organization, the key to any CQI initiative is using a structured planning approach to evaluate the current practice processes and improve systems and processes to achieve the desired outcome. Applying QI to a General practice & EHR implementation means that the health care team must understand what works and what does not work in the current the evaluation strategy that enables the team to determine if they are achieving that outcome. The team also intervenes, when needed, to adjust the QI plan based on continuous progress monitoring through an adaptive, real-time feedback .

Meaningful Use is an important means to achieving the triple aims of health care:— improving patient care, population health, and reducing per capita costs of health care [8].

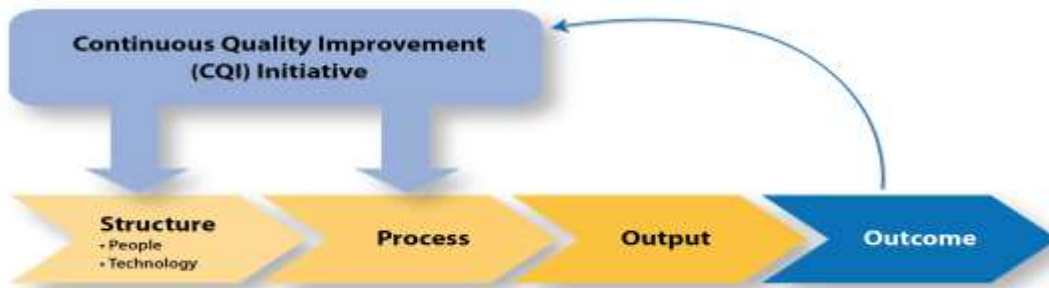
Practices achieve Meaningful Use will be able to obtain a deep understanding of their population and uncover aspects of patient care that could be improved. Using a planned strategic approach to QI will help a practice move from reporting the requirements for Meaningful Use to improving patient care and meeting other practice goals. The literature shows a strong link between an explicit QI strategy and high performance. Thus, applying QI principles and strategy will transform numbers on a spreadsheet or a report into a plan for action that identifies areas of



patient care must focus on the structure and process that lead to the expected outputs and then ultimately to the desired outcomes.

In undertaking any QI initiative, a practice must consider: (1) structure, (2) process, and (3) outcomes. Within the context of health information technology: any initiative involving an EHR to improve

QI Model



Structure. Structure includes the technological, human, physical, and financial assets a practice possesses to carry out its work.

Feedback Loop. a feedback loop between the output/outcome and the QI initiative represents its cyclical. Once a change to the structure and process is implemented, a practice must determine whether it achieved the health IT resources, and staff.

Process. The activities, workflows, or task(s) carried out to achieve a outcome are considered process. Although QI strategies focus more commonly on clinical processes, QI also applies to The EHR functions and administrative processes meet Meaningful Use

Output. Outputs are the immediate originator to the change in the patient's status. Not all outputs are clinical; many practices will have outputs tied to efficiency goals.

Outcome. Outcomes are the end result of care and a change in the patient's current and future health status due to antecedent health care interventions . Desired changes in the cost and efficiency in the EHR can also be considered outcomes. If the outcome is achieved, the practice could determine how to produce an even better outcome or achieve it more efficiently and with less cost. [10]

CQI STRATEGY IN HEALTH CARE

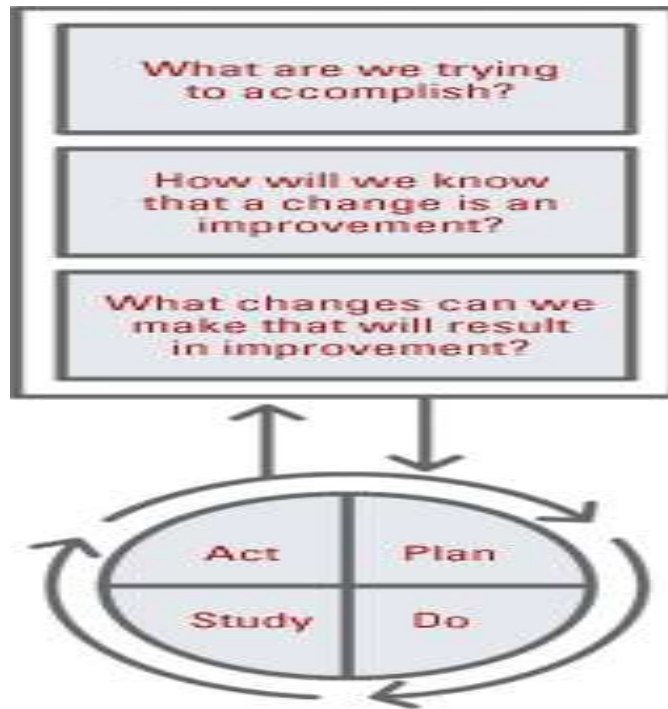
care today. The strategy recommends the Healthcare Improvement Model for Improvement . [11]

The Model for Improvement is a simple strategy that many organizations currently use to accelerate their improvements. A CQI initiative based on the Model for Improvement focuses on setting aims and teambuilding to achieve change. It promotes improvement by seeking answers to three questions:

Fortunately, a practice can choose many well-established CQI programs and strategies to achieve its QI aims. The specific strategy a practice selects depends on several factors; for example, a practice incorporating CQI in an initial GB /EHR implementation will have different goals and objectives than a practice that has already achieved Meaningful Use. The following section briefly describes strategy for CQI widely used in the health

- What are we trying to accomplish?

- How will we know that a change is an improvement?
- What changes can we make that will result in improvement?



Principles

To answer these questions, a CQI initiative uses a **Plan-Do-Study-Act (PDSA)** cycle to test a proposed change or CQI initiative in the actual work setting so changes are rapidly deployed and disseminated. The cycle involves the following seven steps:

1. **Form the team.** Including the appropriate people on a process improvement, team is critical to a successful effort. The provider must determine the team's size and members. Practice staff persons are the experts at what works well in the practice and what needs to be improved. Include them in identifying and planning the implementation of any CQI initiative.
2. **Set aims.** This step answers: What are we trying to accomplish? Aims should be specific, have a defined time period, be measurable, and include a definition of who will be affected: patient population, staff members, etc.
3. **Establish measures.** This step answers: How will we know that a change is an improvement? Outcome measures should be identified to evaluate if aims are met.
4. **Select changes.** This step answers: What changes can we make that will result in improvement? The team should select changes that make sense.
5. **Test changes.** First, the changes must be planned and downstream impacts analyzed to assess whether they had the desired outcome. Once the changes are implemented, the results should be observed so that lessons learned and best practices can be used to drive future changes.
6. **Implement changes.** After testing a change on a small scale, learning from each test, and refining the change through several PDSA cycles, the team may implement the change on a broader scale—for example, for a pilot population or on an entire unit.
7. **Spread changes.** After successful implementation of a change(s) for a pilot population or an entire unit, the team can disseminate the changes to other parts of the organization.

Primary Health Care

Currently in Libya there are 3 levels of PHC provided;

. Health Units provide basic care for an approximately 5-10,000 population.

. Primary Health Care Centres provide services for a population of approximately 10-20,000 and generally include general practice, Maternal Child Health services, immunisation, laboratory services, pharmacy, dental services and other clinics for example diabetes, hypertension, dermatology etc

. Polyclinics offer PHC and specialist out-patient services for an approximately 50,000 population

There is no consistency within either the PHCC's or Polyclinics in structure, staffing, resources and services provided.

Levels at which PHC operates;

Health services provided by PHC only partially meet the needs of the population, this combined with the low perceived quality of care by the population has led people to bypass the primary health care level and seek care at either the secondary & tertiary levels and/or within the growing private sector. In order to relieve the burden of care placed on these services, it is essential raising awareness within the population of the importance of PHC and the services for which it provides. PHC involves change at every level and requires a fundamental change in the culture of health care. It requires structural change in order to distribute resources and seeks to reduce health inequalities and promote equity of access of resources for care services.

. **The home level** – practised primarily by individuals on their own or within their families or other close social networks.

. **The community level** – this concerns the health of a whole community and involves the voluntary efforts of individual community members, groups and workers. Activity is related to health promotion, public information and the planning/implementation of communal health activities

. **The first health facility level** – the first level at which a trained health professional and clinical facilities are available, acting at this level may involve a support role in training and supervising a variety of community health workers

. **The first referral level** – this level concerns the administrative or clinical referral of a health threat or problem, for example, to secondary health care services or planners and managers and others with responsibility for ensuring, for example, the enforcement of environmental safety regulations [12]

Selection Criteria of pilot model District

The choice of pilot sites and the decision to include the proposed PHCC's within the study also took into consideration geographic and socio-economic factors and included;

1. Easy to access and visit and relatively safe in security wise
2. Having good and reasonable health care system infrastructure and services delivery compare to other districts
3. Presence of public and private health providers
4. Catchment area – urban and rural coverage, location and distance from nearest referral facility, ability to target the largest number of patients, presence of key target groups with the focus on the greatest need for the services provided (preferably in high density areas with a low-income population)

5. Function – minimum services provided, functioning equipment including diagnostic equipment, adequate supplies, staffing and resources, and regular opening hours.
6. Willingness of staff and management to participate in the pilot study – degree of interest and motivation
7. Utilisation rates – access and demand for services by the local population.

of quality of care, indicators pre-selected for pay-for-performance, development of reporting guidelines and reporting formats, related training of district health services and collection of baseline data.

Additionally an action plan will be developed for **clinical training** which needs to be realistic and time sequenced..

The expected outputs and benefits of the initiative include:

- . Establishment of a comprehensive Family Practice Model especially in districts of low and middle income countries;
- . Enhanced capacity of district health managers to plan, manage, implement and monitor health service delivery;

- . Development of valid, reliable and tested assessment and intervention tools fully adapted to the needs of the region

The action is articulated around result areas:

1. **Strategic Planning, Health Financing and Capacity Strengthened:** National health strategy, related policies and action plans developed.
2. **Health Service Delivery and Quality of Health Care:** accreditation standards developed and selected quality improvements reported.
3. **Workforce Planning, Development and Management:** Recruitment and retention.
4. **General practitioners** are licensed medical caregivers who perform a variety of clinical and administrative tasks under direct consults supervision to provide support in primary care settings to improve medical procedures.

OBJECTIVE

improve performance of the district health system based on a family practice approach and information technology

at the district level, and to improve efficiency, effectiveness and quality of health service delivery in Libya. Specific objectives of the assessment are:

Prior to the pilot project a **gap analysis** (SWOT) tools will be completed at each pilot site in order to provide baseline data and determine gaps in services and resources, and current PHC strengths and weaknesses.. However, due to the ongoing security situation and the absence of accurate data, this initial analysis will provide a baseline data only. A situational **HR analysis** includes: Overstaffing redeployment, Job descriptions for all staff & Organogram per facility, Recruitment promotion, Performance based initiatives, and Training.

A draft **monitoring and evaluation framework** will include the development of joint performance indicators, indicators

- . Improved implementation of priority public health programs based on an essential package contributing to better health outcomes;

- . Better organized and empowered community and that has greater say in decisions related to its own health;

The primary overall objective of the programme is developing a **district operations study on** achieving Universal Health Coverage and guidelines to implantation, guided by the primary health care reforms, through strengthening people-centered and integrated health care services, development of a family practice model

- To understand the health status of the population and political commitment level.
- To systematically review various components of Health system in the district including: leadership and governance, health financing, health care delivery, workforce, infrastructure, technology, and health information system and to identify health problems, needs and key social determinants of health.
- To assess the appropriateness and effectiveness of existing set of health program.
- To determine to what extent health services are oriented towards needs and what systems are in place to adequately manage and support the services.
- Use the collected information to prioritize interventions and plan for improvements in the performance of district health system

METHODS & MATERIALS

Operations research Survey

Study area: The survey will be conducted in Azzawia City, Libya

Study design:

and by a team of senior and experienced managers designated by the appropriate authority.

Focus group qualitative method: a FGD/ Interview with district health managers of different

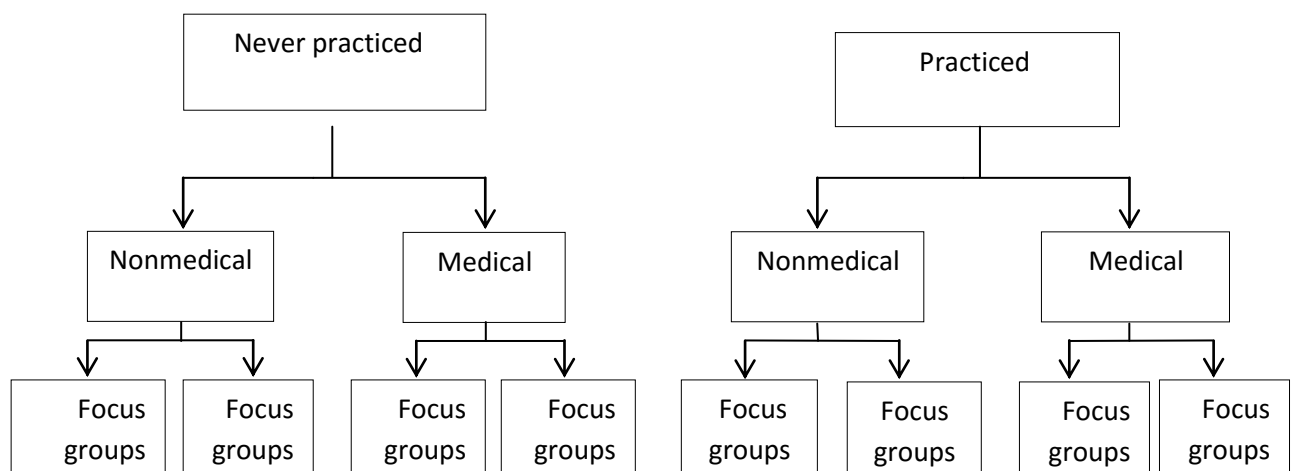
Focus group qualitative method in-depth interviews will be conducted face to face to study the provider's attitude toward and recommendation practice Eight different focus groups will be recruited to conduct one discussion session.

The assessment will be done by visiting a health care facilities services in Azzawia

priority programs will be carried out to define

- Accessibility to health care services
- People centeredness of health care services and facilities
- Integrated disease specific programs across sites and levels of care
- Intersectoral collaboration,
- Creating synergies between public and private sectors
- Identifying defined catchment population for each health facilities
- Quality of primary care facilities

Study population: Health care providers from both the public and private sector will be selected to conduct qualitative key informant interviews. The participants will be recruited from the same study subjects



Purposive sampling Diagram for focus groups key informants

In-depth interview Qualitative Method:

A questionnaire, which will be filled by the investigator with inputs from local manager, by direct inspection and inspecting all relevant documents, Interview various staff members, and

Sample size and selection Sample size and selection:

For the qualitative study, sample size is not as important as the depth and details of data we can get. For this study, 46 key informants are sufficient to address the study objective. Those 46 key informants d be small enough to give everyone the opportunity to express an opinion. On the other hand, it should be large enough to provide diversity of opinions. For this study, there will be 5 - 6 participants for each focus group.

Participants will be selected through purposive sampling. Firstly, participants

Sample & Study instrument:

A series of questions based on the Health Belief Model has been developed to serve as a guideline for the discussions

(refer to Appendix I,II).

Data management and analysis:

The health care service is organized on four levels taking into account the principles of primary health care. The first level is the Community Health Units (*Dispensaries*), the second is Health Centers, and the third Polyclinic. The team should inform the persons interviewed at the centers about the importance of the process and the need to be honest and frank about the questions comments and suggestions. They should be encouraged to give their opinion about the functioning of the facility even if it is negative and give suggestions to improve the situation. They should be provided with privacy during the interview and absolute confidentiality about their comments.

- To learn from you about how your programme is functional at the district level, how do you see your internal collaboration within health sector, how do you assess your collaboration and partnership with other sectors, how do you see level of community participation in your area of work and in general what are the gaps and how can we
- collectively improve delivery of quality health care services to the entire population. Your collaboration with the private sectors at the district level will also be useful in developing health system strengthening in Azzawia.

Interview with patients and their relatives. Key informant interview will be conducted to assess the provider's attitude towards and recommendation practice of family medicine

will be selected by using purposive sampling from both public and private sectors.

The focus group shoul

will be recruited as practiced or not. Secondly, those groups will be divided into medical professionals and nonmedical groups.. Finally from each group, two focus groups will be formed to conduct the focus group discussion. [13]

The focus group discussion will be conducted in Arabic to be suitable for all participants. The interviewer hereof will conduct the group discussion. A note taker and observer will be recruited among locals. The interviews will begin with an introduction, then argument will start with explaining the purpose and the reasons behind conducting this study followed by the main discussion. A semi-structured interview guideline has been developed to consider the provider's attitude and recommendation toward family practice & technology.

We thank you for agreeing to participate in this discussion.

- There is no right or wrong answers in this discussion. Every ones opinion is important and should be freely expressed.
- What we will learn from you today will be useful in future on how health an Development activities can be continued without any constraints. After that, a number of questions will be asked for the key informant and filling of the questionnaires to collect information about GP & EHR (*refer to appendix 3*). At the end of the session, and pamphlets written in Arabic on family practice will be distributed among the participants. A software used for entering, organizing and integrating the data.

RESULTS

Libya is an upper middle income country in the Middle East and North Africa region. It has a population of approximately 6.3 million. At present Libya provides universal coverage of health and education free of charge and the current health system is a mix of public and private health care. Financing has mainly been from the State, there is considerable out-of-pocket expenditure including buying services and health care from abroad especially following the conflict in 2011 when injured fighters were sent overseas for treatment. Additionally due to the large shortage of qualified health care workers (especially in nursing) many foreign workers are now working within the health sector. Recent figures reported 2013 show that Libya has 96 hospitals with 20,289 beds; 25 specialised units with 5,970 beds; 1,355 Primary Health Care Centres (PHCC's); 37 Polyclinics and 17 quarantine units. Prior to the conflict, Libya had 10,230 doctors of whom 8,612 were Libyan and 1,618 were foreign. This amounts to 1.7 doctors for every 1000 citizens compared to 2.8 doctors per 1000 in the UK. Life expectancy at birth is 74.8 years and the fertility rate in women is 2.6 (regional average is 2.8), under five mortality rate is 16.9 per 1000. The maternal mortality ratio (MMR) is high at of services are also important factors and will

determine the type of facility available especially in rural compared to urban areas.

The district of Azzawia is approximately 1000 sq kms (20kms from East to West and 50 kms from North to south). This

an estimated 58 per 100000 live births in 2010 however as there are no systematic audits in place especially in rural areas this figure may also be higher. It has to be recognised however, that although recently a number of studies have been carried out within the health sector, there still remains a lack of accurate and available data.

The survey are 1.5 PHC facilities available per 10,000 population, with 0.74 PHC units and 0.62 PHC centers, (it is assumed the remainder figure of 0.14 includes other PHC facilities). The number of facilities available per 10,000 population differs greatly by district, the average ranges from 5.9 facilities in one to only 0.3448 in other. The low level of health facilities in larger districts may be due to the fact that the survey covered only PHC facilities and those districts included more secondary level facilities. The survey shows the total number of PHC facilities per district per 10,000 population. PHC facilities are also inequitably distributed and there are large disparities existing between urban and rural populations, furthermore, access to health facilities has also been negatively impacted by the ongoing poor security situation in some regions. Additionally it should be noted that demand for services and accessibility

large area is itself a great challenge. The population is approximately 220,000. The large of part of population lives in area close to the Mediterranean sea and small towns in a largely desert land.

The health care service in Azzawia is headed by a director and is structured in a

way to provide accessible and affordable health care to all in Azzawia

I. Interview with the district health manager/ policy maker, District Azzawia, Libya

Type of facility	Public		Private		Total	
	Urban	Rura	Urban	Rura	Urban	Rura
Hospitals	1		2		3	
Hospital beds	520		45		565	
PHC center/ Clinics	4	2	25	7	29	9
Dispensaries/health posts/health houses	17	21			17	21
Pharmacies	30		42	23	95	23
Laboratory	2		7		9	
X-ray	2		2		4	
other diagnostic facilities: MRI, TB Clinic	1+1				2	

Community Health Unit

Each visited Community Health Unit serves a population of about 5000 and All of them have at least 2 doctors and other support staff to provide the first level of health care. In Azzawia district there is a total of partially functioning 38 CHUs 38/820(4.6%):- 17 February, Omar Abdul Aziz, Osama Abnuzaid. Al Ain, Salahudeen, Judayim, AsSalam, Beer Trafas, Al Hasan Bin Ali, Beer Henifees, Al Jilda, Beer Huiza,

Beer Bin Hassan, Beer Al Henesh, Beer Moammer Al Basha, Al Jala’a Sadoon, Al Mehdi, Ramadan Zoamid, Beer Asal, Shalguda, Imdakkam, Beer Ganam, Abu Shumwatha, Beer Azzideen, Arabtha, Al Qsaspa, Al Gassar, Abu Shara’a, Asshurooq, Bin rabha, Al wassa, Al Bashayir, Bahar Assamah, Abu Asheeba, Azzawia Junubia, Annaser.

Health centers

The six visited functioning Health centers 6/535(1.1%) provide the next higher level of health care and each serve a population of approximately 35000. They function 24 hours a day and provide emergency health services. They have a minimum of 6 doctors from different specialties and

necessary support staff. They provide dental services and have a medical laboratory. There are a total of 7 Health centers in Azzawia district. 7/535 (1.3%) Dayilalal, All Harsha, Al Muthruth, Nasser, Abuiza, Beer alghanam.

Polyclinic

One polyclinic in Azzawia visited, which provide the next level of health care. It is well staffed and equipped for serving patients of most diseases. It has consultants of almost all the important specialties. A more advanced laboratory and other investigation facilities are also

provided. An immunization clinic for children provides all the vaccines as per the national immunization schedule. The polyclinic is supposed to serve a population of 65,000; hence there is a clear need for at least two such centers in Azzawia. 2/37 (5.4%)

Central Dental clinic provides broad dental care as a standalone center 1/15(6.6%).

.It may be noted here that CHUs, Health Centers and Polyclinic have National Manpower and Non-national in health facilities: Doctors 250, Dentists 155, Pharmacists 37, Nurses 735, Health Professionals 471, and Managers 642 with Activities: 562934 and do not provide inpatient care.

Other health care institutions

Tuberculosis clinic – It has the staff and equipment for diagnosis and outpatient treatment of TB patients. . It serves a population beyond Azzawia district.

Zawia Hospital

The hospital has bed strength of 520 and staff and facilities to provide most of the diagnostic, curative and rehabilitative services needed for the population of Azzawia. Approximately 22,000 patients are treated and 8000 deliveries conducted yearly. In addition it also serves as the training hospital for the students of the medical college attached to it. A dental college is also functioning in the same campus.

Private Health care institutions

There are a number of private health care providers consist of two inpatient clinics, 32 clinics, about 65 pharmacies and 7 laboratories. The inpatient have bed strength of 90 each and have doctors from the basic specialties.

II.PRIMARY HEALTH CARE FACILITY QUESTIONNAIR /FGD

Focus group qualitative method:

The result and discussions shared in a Focus Group Discussion (FGD) with randomly selected communities, health care providers, managers/ district policy makers, carried out to define:

Question	Yes	No
1-Is the catchment population for this facility has been defined? when? How? What?	1	42
2-Is the family folders have been made for the families?		45
3-Distance of the residential areas till this facility (less than 5 Km or above 5 Km)	22	15
Question	Yes	No
1-Do you see your programme is integrated to the PHC? how?	16	12/19/32
2-Is there a female health care provider (medical technician) posted at the facility?	3	7/38/37
3-are you supervising PHC facilities together?	6	37
4-Do you use any supervisory checklist?	1	6/42/34
5-Can you share any example of collaboration with other sectors? What can be done better to sustain intersectoral action?	5	26/45
6-Can you share any example of collaboration with community/UN agencies? What can be done better to sustain multisectoral action?	1	12/32/7/37/5/38
7-Can you share any example of collaboration with private sector? What was achieved? How do you see its sustainability?	-	-/42/-/42
8-Did you ever assessed quality of care provided in your area of work at PHC facilities? how? What are the indicators can assess quality of services?	-	1/41/1/42
9-Do you think PHC facility staff have enough skills and knowledge to deliver your programme? where are the gaps? How staff knowledge and skills can be improved?	2	-/42/-/42/14/29
10-When was the last time you organize in-service training for the staff at facility level? How training activities can be improved?	4	5/39
10-List type of the staff available in this center?	30	1
11-Check availability of essential medicine	31	3
12-Check availability of essential equipment?	25	19
13-Is the areas of responsibility clearly defined within the health team	13	35
14-Are majority of staff attended any in service training sessions during the 12 months?		40
15-Is the information recorded and reported on regular basis?	21	31
16-Are the staff use from the available information in their local health	28	22

planning?		
17-any surveillance or outbreak investigation activities	14	29
18-What was the last time someone supervise and monitor your activities ?	31	11
19-Is a functional referral system going on in this facility? any feedback after discharge	5	35

. average distance of the people to PHC facilities (less than 5 Km) 22/46(47%),. package of services available at PHC facilities **yes** 29/46(63%), . no staffing pattern or any outreach team program training 40/46 (87%),. local planning 28/46 (61%),. . Partial implementation of health care programs and follow up procedures ,35/46(76%).. There isn't any evidences on presence of functional community health committee (Minutes of Meeting, documented good practices, case studies),38/46(83%),. availability of services including: MCH 37/46(80%), Family Planning42/46(91%), Growth monitoring32/46 (70%), EPI38/46(82%), .prevention/ screening and management of communicable and NCDs42/46(91%), . capacities monitoring and supervision42/46(91%), .Potential priority programs for integration 16/46(35%), . commitment and willingness level of the local authorities on needs for Intersectoral action 26/46 (57%) . any type of collaboration and partnership between public and private sectors 41/46(81%) . No defined catchment population for each health facilities 42/46(91%). no available and relevant guidelines 39/46(85%). Quality of care: ...no programme39/46(85%), ... no mechanisms for patient continuous care34/46(74%), functional referral system 18/46(39%).

III.PRIORITY PROGRAMMES MANAGERS QUESTIONNAIRE,GUIDE FOR FGD

DISCUSSION

. The project aims to improve the quality of health care through capacity building activities and through the implementation of the proposed Study. It also allows for standardisation, comparability and greater accountability within health services in Libya.

. Azzawia health facilities are a large practice currently composed of more than 2290 employees in over proposed 60 PHC locations that provides primary care to more than its patients. The staff more than 250 certified medical doctors who perform medical and a wide variety of tasks, including patient intake and screening, measurement of vital signs, performance of point-of-care laboratory tests, and administration of medications and immunizations. When the competency verification study was employed, and delivered only primary care services, prospective employees participate in interviews and undergo background and reference checks.

A post-conflict health facility assessment was conducted in 2013, which provides a rapid assessment of the status of service delivery, its capacities and resources. The post-conflict health facility assessment already provides a measure of the level of management and administrative capacities present in the facility. Review available reports at the district and national level, mapping of district health care facilities and their main functions at rural and urban areas, discussions with local health care managers on services available at each level, and visit all health care facilities at the selected district, Using PHC assessment tool, organize FGDs with the selected community and document level of community in needs assessment.

Focus group discussions defined:

- **Availability to health care services:** average distance of the people to most of PHC facilities more than 5 Km (53%), without package of services available at PHC facilities (63%), and no staffing pattern or any outreach team program and Community Health Workers haven't any ongoing follow up mechanism for absentees in place.
- **People centeredness of health care services and facilities:** with low organized local planning only(61%), Partial implementation of health care programs and follow up procedures (76%), There isn't and availability of services including MCH(80%), Family

Planning (91%), Growth monitoring (70%), EPI (82%), prevention/ screening and management of communicable and NCDs (91%) .

- **Integrated disease specific programs across sites and levels of care:** Documenting human resource capacities monitoring and supervision 91%, Potential priority programs for integration(35%), and managerial capacity and tools to strengthen monitoring and supervision.
- **Intersectoral collaboration:**, commitment and willingness level of the local authorities on needs for Intersectoral action is only (57%)
- **Creating synergies between public and private sectors:** There is a type of collaboration and partnership between public and private sectors (81%). .
- **Defined catchment population for each health facilities:** not available (91%) and without relevant guidelines (85%)
- **Quality of care:** no programme (85%), no mechanisms for patient continuous care (74%), and functional referral system only(39%).

LIMITATIONS

An attempt has been made to provide an overview of rapid comprehensive assessment of the health system in a district for analyzing the findings in relation to the primary healthcare needs and requirements and pointing out areas requiring strengthening and / or corrective action. Such an assessment cannot replace in –depth systems and policy analysis. However, it helps identify problems and issues in order to prioritize interventions for improving performance of the district health system.

A several limitations of the approach are outlined below;

- It does not provide in-depth understanding of the socio-cultural dimensions of specific health issues.
- Training and supervision need to be intensive in order to collect quality data
- Information collected from the facilities is limited to the health services provided in the public sector.
- It does not assess the capacity of health care providers to deliver services
- It is difficult to synthesize and consolidate conclusions across facilities and measure change over time
- Quantified results are not always statistical
- Its use is limited without service standards against which to measure
- It is difficult to use as baseline or end line – need special design considerations

It has not been formally tested the validity or reliability of the testing strategy. However, estimations were tested in a systematic way using standard methodologies, and replicated abilities as they would apply in the workplace as much as possible. As this is a case study of one large group practice in one region, it is not randomized or powered to apply more broadly to other groups. It did not track the demographic, educational, or employment history of the medical informants in relation to assessment data; it is possible that the

clinical skills deficiencies observed are related to such variables. In addition, a range of experienced workers and new graduates were tested. In view of this large diverse population, the consistency of results suggests at least a regional trend. Finally, this is an observational study and was not powered to determine differences between evaluation methodologies.

More work is needed to determine optimal requirements for initial and ongoing competency assessments among primary care services, which one should be verified during ongoing workplace assessment programs, and the costs of such programs. Work is also needed to assess the impact of staff education on patient safety and outcomes. [14]

IMPLICATIONS FOR PRACTICE

Primary care practices rely on competent clinical teams to provide safe, high quality care to patients; within these teams medical professions are called on to provide an increasing number of services. Medication errors are one of the most frequent causes of harm in primary care settings. [15]

Observations suggest a need to implement a clinical skills assessment process to verify clinically important skills for medical junior assistants in large primary care & EHR group practice even when they are certified or registered graduates of credentialed training programs. Staff in these medical practices may not be well trained in clinical procedures; the observed skills deficiencies may relate to a broad base of skills taught in medical programs coupled with limited training resources and variable scope of medical practice.

The designed assessments should be based on needs in district practices and oversight of general practitioners by supervising specialty clinicians. primary practitioners may not be aware of potential skills limitations among support staff, and may find best practices helpful in developing their own programs. A systematic training and assessment programs will become more common as general practices proliferate and increase reliance on interdisciplinary teams to deliver care.[16]

During program development over time still a necessity to identify deficiencies in clinical skills among employees. Some employees working in medical assisting positions had no formal training. The findings have reinforced a commitment to assessing skills of newly recruited professionals, and implementing a reassessment program to evaluate for possible skills decay among all clinical support staff , and to train competent medical professions with a feedback to the departments.

After completing a survey needs assessment, implementing standards to all medical juniors, and program practice management to identify experienced staff members to train newly hired medical juniors in each practice. A taskforce comprised of nurses, physicians, medical assistants, managers, educators, and human resource specialists review the functions and the effectiveness of the practice-based orientation program to maintained patient care responsibilities and skills assessments.

The primary care GP & EHR advancement criteria were developed (1) assessment of core clinical skills and knowledge in a structured setting, (2) review of each individual's

performance including a written plan for remediation of any deficiencies, and (3) implement of information technology (4) communication with the employee's supervisor. [17]

BEST PRACTICES TO CONSIDER IN USING A QI STRATEGY

The QI initiative Model is best used for Improvement that requires a gradual incremental and sustained approach (18).

Have the Right Data and Use the Data Well

Ensure that the EHR collects the structured data to support QI efforts

Establish targets and benchmarks.

Establish a broad set of measures—structure, process, and outcomes.

Combine data to assess the practice population.

Conduct periodic data quality audits.

Have the Resources to Finish the Job

Establish reasonable budgets and time frames for any given QI initiative.

Break down larger QI initiatives into smaller ones.

Establish a stopping point where success is defined and new initiatives started.

Invest in a QI infrastructure.

Celebrate Success

Any QI effort, no matter how big or small, involves time and effort that should be recognized by the participating staff and leadership. Taking time to reflect on the QI team's accomplishments will build enthusiasm and energy to tackle the next problem. [19][20]

BIOGRAPHIES

- 1. Aspy, C. B., Mold, J. W., Thompson, D. M., Blondell, R. D., Landers, P. S., Reilly, K. E., & Wright-Eakers, L. (2008). *Integrating screening and interventions for unhealthy behaviors into primary care practices. American Journal of Preventive Medicine, 35*(5 Suppl), S373–S380.**
- 2. Brannick, M. T., Erol-Korkmaz, H. T., Prewett, M. (2011). *A systematic review of the reliability of objective structured clinical examination scores. Medical Education 45, 1181–1189.***
- 3. Buppert, C. (2008). *Understanding medical assistant practice liability issues. Dermatology Nursing, 20, 327–329.***
- 4. Commission on Accreditation of Allied Health Education Programs (CAAHEP). (2008). *Standards and guidelines for the accreditation of educational programs in medical assisting. Retrieved August 7, 2012.***
- 5. Institute of Medicine Committee on Quality of Health Care in America. (2001). *Crossing the quality chasm: A new health system for the 21st century. Washington, DC: National Academy Press.***
- 6. Edwards PJ, et al. *Maximizing your investment in EHR: Utilizing EHRs to inform continuous quality improvement. JHIM 2008;22(1):32-7.***
- 7. Agency for Healthcare Research and Quality. *What is health care quality and who decides? Statement of Carolyn Clancy before the Subcommittee on Health Care, Committee on Finance, U.S. Senate, 2009.***
- 8. Berwick DM, Nolan TW, Whittington J. *The triple aim: care, health, and cost. Health Aff (Millwood). 2008 May-Jun;27(3):759-69.***
- 9. Wagner EH, Coleman K, Reid RJ, Phillips K, Abrams MK, Sugarman JR. *The changes involved in patient-centered medical home transformation. Prim Care. 2012 Jun;39(2):241-59.***

10. Harvey, L. (2012). *Analytic quality glossary*. Retrieved February 29, 2012, from
11. Kazley AS, Ozcan YA. *Do hospitals with electronic medical records (EMRs) provide higher quality care? An examination of three clinical conditions*. *Med Care Res Rev* 2008;65(4):496-513.
12. WHO (2007); *Health Systems Profile Libya; Eastern Mediterranean Health Systems Observatory*
13. Slaughter, P., et al., *Focus Groups in Health Services Research at the Institute for Clinical Evaluative Sciences. The Institute for Clinical Evaluative Sciences, 1999.*
14. The National Institute of Standards and Technology (NIST). *Baldrige performance excellence program: Self-assessing your organization; 2010.*
15. Garfield, S., Barber, N., Walley, P., Willson, A., & Eliasson, L. (2009). *Quality of medication use in primary care—Mapping the problem, working to a solution: A systematic review of the literature*. *BMC Medicine*, 7, 50.
16. Tache, S., & Hill-Sakurai, L. (2010). *Medical assistants: The invisible “glue” of primary health care practices in the United States?* *Journal of Health Organization and Management*, 24, 288–305.
17. Grumbach, K., & Bodenheimer, T. (2004). *Can health care teams improve primary care practice?* *Journal of the American Medical Association*, 291, 1246–1251.
18. Hughes RG, ed. *Patient safety and quality: An evidence-based handbook for nurses*.
19. Rockville, MD: Agency for Healthcare Research and Quality; 2008 Chapter 44, *Tools and strategies for quality improvement and patient safety*.
20. Institute of Medicine. (2010). *Redesigning continuing education in the health professions*. Washington, DC: The National Academies Press.