

Community-Oriented Primary Care Jaffna A Model Primary Care in Sri Lanka The story so far 2012-2017

Department of Community and Family Medicine, University of Jaffna, Sri Lanka.

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Preface

It gives me great pleasure to write a note in this important ''Community Oriented Primary Care '' model initiated by the Department of Community and Family Medicine of Faculty of Medicine, University of Jaffna.

The "Community Oriented Primary Care" (COPC) basically aims to provide holistic care in a defined community in an accountable, accessible, comprehensive, coordinated and in continuity manner. At present the health care delivery is fragmented and segmented for various reasons and being exposed to financial hardships globally.

The Family Medicine is one of the novel specialty evolving in many countries including

Sri Lanka clearly focuses on its principles while meeting its challenges. It is obvious to observe that trends towards epidemiological and demographic transitions and related health problems could be dealt better in primary care settings considering the professional suitability.

The innovative initiation through establishing such a primary care model in northern Sri Lanka need to be appreciated without any further doubt. It is indeed has identified the actual needs of a defined community through appropriate integrations for a better service delivery. The growth of the services and the activities is possible through collaborations with relevant partners and it has been well proven in this model. It is necessary to address the impact the harmful use of alcohol and other substances, unhealthy eating and unacceptable social behaviors in a care delivery setting. Thus the expected outcomes are specifically focused in the Community Oriented primary care model

I am sure that the tremendous and the enthusiastic actions will further bring greater achievements in the near future. I look forward and hope this innovative model would definitely help to strengthen primary care in the country

Best Wishes

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Executive Summary

The increasing incidence of non-communicable diseases (NCD) show significant disease burden. W.H.O. states that, practicing the Family Medicine principles are the best ways to overcome this burden.

Now Sri Lankan health authorities also realized the importance of primary care in controlling NCD related Burden. However, Lack of resources is considered as a major challenge.

The "Community Oriented Primary Care" (COPC) is an option to improve the primary care in low resource settings. COPC is defined as a care practice, providing accessible, comprehensive, coordinated, continuous, and accountable health care in a defined community. It includes defining the community, conducting a community diagnosis, developing and implementing an intervention, monitoring the impact of intervention and actively involving the community. As pave with this, Department of Community and Family Medicine, University of Jaffna (DCFM) developed a model primary care delivery system in its project area (Nallur MOH) in 2012. DCFM has been implementing COPC by maintaining effective coordination and introducing appropriate motivation strategy among health care workers and general public.

As a result, many life style modification programs were conducted, several cases of non-communicable diseases have been identified at early stage and all cases were channeled to the appropriate care pathways in time.

Health information are kept in paper based documents and used for evaluating the outcome of the project and conducting researches. Few challenges and limitation were identified during these five years of experience.

List of Abbreviation

Abbreviation	Explanation				
DCFM	Department of Community and Family Medicine				
DH	Divisional Hospital				
PMCU	Primary Medical Care Unit				
FHC	Family Health Center				
DMO	District Medical Officer				
МО	Medical Officer				
MOIC	Medical Officer In charge				
PHM	Public Health Midwife				
ANC	Ante Natal Care				
PHI	Public Health Inspector				
PHNS	Public Health Nursing Sister				
МОН	Medical Officer of Health				
CME	Continuous Medical Education				
COPC	Community Oriented Primary Care				
NCD	Non-Communicable Disease				

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1. Introduction

In Sri Lanka, primary care services are delivered by both state and private sectors. The state sector is through Medical Officers of Health (MOH), Divisional Hospitals (DHs), Primary Care Medical Units (PMCUs), OPDs of Base, General and Teaching hospitals. The private sector is through part time, full time general practitioners and the OPDs of private hospitals.

The Medical Officer of Health delivers community based preventive health services while DHs and PMCUs provide institution based care. Primary care includes social care and supports which is mainly provided by the staff from Divisional secretariat to provide comprehensive health care, the social aspects of health include, supporting elders, female headed families, investigating school dropouts, investigation for child abuse, etc.). Medical Officer of Health and the Divisional Secretariat deliver services to a fixed target population. In most circumstances, the target population and area covered by MOH and DS are one and the same. In addition, the most of the Departments of Community Medicine belongs in Sri Lanka are involved in service delivery to a selected MOH Area, which is considered as the Project Area of the relevant University.

The Nallur MOH Area is the University Project Area of the University of Jaffna. It consists one DH and two PMCUs. Here the coverage area of Nallur MOH is not exactly same as the DS Nallur. At the same time there is an overlap of Municipal council MOH in Nallur DS.

Despite of fairly good primary care delivery system, continuously increasing health burden due to non-communicable diseases are real challenge to the overall health sector. However, it has been proven that patient-centered, comprehensive and continuity care provides better outcomes, especially in the

management of non-communicable diseases. Family Medicine is the principle with all those characters.

Therefore, the Ministry of Health plans to strengthen the primary care to face the duel disease burden and demographic transition effectively by incorporating patient-centered, comprehensive and continuity care. As pave with it, University Grant commission decided to incorporate Family Medicine into the existing undergraduate Medical Curriculum, at the same time it was strongly recommended by Sri Lanka Medical Council (SLMC).

The Faculty of Medicine, University of Jaffna introduced Family Medicine into its undergraduate curriculum in 2011. The Department of Community Medicine, University of Jaffna was entrusted with establishing Family Medicine training in Jaffna. As a result, the name of the Department was changed to Department of Community and Family Medicine (Gazette extraordinary NO: 1711/24 OF 24.06.2011). The patient-centered clinical training is only possible in a properly structured and effectively functioning primary care set up. As there was no such primary care set up in Jaffna previously, a model Primary Care was formulated.

2. Method of establishing the new Primary care system delivery in Nallur MOH

The Department of Community and Family Medicine established a model Primary Care Service Delivery System with the help of experts from the University of Jaffna and the Northern Provincial Ministry of Health. As a first step, tentative plan was drafted by the academics at the Faculty of Medicine, University of Jaffna. The team comprised of the Dean of the Faculty of Medicine (2010), Head of DCFM (2010), lecturers and a visiting lecturer at DCFM, and the Regional Director of Health Service, Jaffna (2010). The model was presented at a Medical Exhibition conducted by the Faculty of Medicine, University of Jaffna in 2011 and finalized by incorporating the feedback from the general public and experts from various fields. The initiative was funded by the Provincial Director of Health Service of Northern Province (2010).



Figure 1: COPC model was visualized at the Medical Exhibition 2010.

The stakeholders of the model Primary Care Delivery System are Medical Officer of Health Nallur, Divisional Hospital, Kondavil, Divisional Secretariat, Nallur, Primary Medical Care Units in the Nallur MOH Area, DCFM, Faculty of Medicine, Divisional Secretariat, Nallur and residents of the Nallur MOH Area.

DCFM strongly believes that effective functioning of the model primary care delivery system depends on team work among the stake holders. Thus DCFM established a centre – the Family Health Centre (FHC) – as a center of coordination. FHC is in the premises of Divisional Hospital, Kondavil.

One of the authors was appointed as the first coordinator of the FHC. Furthermore this model was named as Community Oriented Primary Care (COPC) due to its close collaboration with Family Medicine and Community Medicine, Primary Care, Curative and Preventive Sector and active involvement of residence of Nallur MOH.

3. Structure of COPC

This section deals with the internal structure of FHC, DH, Kondavil, PMCUs, MOH, Nallur.

3.1 Family Health Center (FHC)

Newly built maternity block in DH, Kondavil was converted as Family Health Centre with the fullest support of the DMO of the Hospital and RDHS of Jaffna. Basic structural drawings were made by the authors and the final plan was agreed upon after several discussions with the authorities of both the Provincial Ministries of Health and academics of Faculty of Medicine, University of Jaffna. The University of Jaffna financially supported interior structural modifications. The FHC was opened on the 15th of August 2012.



Figure 2: Family Health Center, opening ceremony.

3.1.1 Internal structure of FHC

The rooms were converted into a consultation room, laboratory, reception area, vision and mission room, health education area, counselling room, room for the midwife, resting room for female staff and a surgical theatre. The three halls have been converted to a lecture hall for medical students, a pre-consultation area, immunization area, and office for the Public Health Inspector (PHI).



Figure 3: Family Health Centre.

3.1.2 Staff of FHC

One of the author functions as the Clinician and the Coordinator. One Temporary Demonstrator is attached to provide clinical assistance and support. An attendant from the Divisional Hospital supports administrative work. Two Community Health Assistants appointed by AHEAD Trust (Non-profitable, Non-Government Organization)

3.1.3 Administration of FHC

The administrative work is shared by the Divisional Hospital, Kondavil and DCFM. The authors are responsible for Medical Education while the District

Medical Officer (DMO) is responsible for the administration. The clinical work is shared by both parties. Practice meetings (After-action Review Meetings) are conducted every other month, and all stakeholders are invited. The purpose of this meeting is to ensure the effective functioning of COPC.



Figure 4: After-action Review Meeting.

3.1.4 Coordinative function of FHC in COPC.

FHC also accepts referrals from local part-time or full-time Private Practitioners, Public Health Midwives and the Public Health Inspector. FHC refers patients to Professorial Units at the Teaching Hospital Jaffna, Divisional Secretariat Nallur. In addition to the clinical staff of the Faculty of Medicine, Pre-clinical and Para clinical staff are also involved in health service provision (e.g. measuring lung function or performing laboratory investigations).

3.2 Nallur MOH

The Nallur MOH Area is divided into 14 PHMM Areas and 4 PHI Areas. There are around 35000 people from 8000 families in this area. The service area of the Nallur MOH is not exactly same as the administrative scale of the Nallur Divisional secretariat.

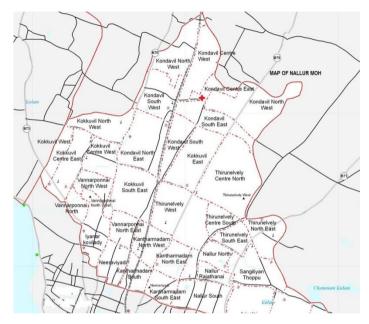


Figure 5: Nallur MOH area.

3.3 Divisional Hospital, Kondavil

The DH consists OPD, ETU, one male ward, one female ward and a materiality ward (maternity ward had been converted as FHC). It provides the service throughout the clock outpatient care, chronic illness care clinic, conducting healthy life style promotion, antenatal care and in ward care (at the moment the buildings for the wards are occupied by the MOH office). There are two medical officers working including a DMO. There are eight heath supportive staff including attendants and laborers, unfortunately there are no nurses in spite of the exitance of

carders. However Public Health Nursing Sister from DCFM look after the nursing duties, conducting regular Healthy life style clinic and patient education. In 2017, one Nursing Officer has been appointed to the Family Health Center. 4 PHM areas belongs to Nallur MOH are considered as the coverage area for DH mainly for NCD care.

3.4 PMCU

There are two PMCUs one at Kondavil and the other at Thirunelveli. Both are manned by Registered Medical Officers. These institutions provide Out Patient Care, Healthy Life Style Clinic and Chronic Illness Clinic, but there is no in-patient care. 4 PHMM areas of Nallur MOH are allocated for each PMCUs.

4. Target population of COPC

The model system provides health services to residents of Nallur MOH Area (12 PHM areas) other than Areali, Arelai consist 2 PHM areas.

5. Practice Management of COPC

5.1 Active community involvement in COPC

Active involvement of local public in health care delivery is paramount to provide efficient primary care; especially in inadequate resource setting. FHC promotes active public involvement in health-related activities such as health promotion, screening, etc. Active public participation is enhanced through a well-planned activity called Community Health Empowerment Project. One of the authors is the Innovator, Coordinator and Program Manager. The project is funded by AHEAD Trust. Public involvement is enhanced by revitalization of local Mothers' Clubs, School Health Clubs, and Elders welfare Societies. Revitalization has taken place through incorporating several self-sustainable and incomegenerating programs like providing healthy traditional food and organizing health canteens. Active community engagement is enhanced by a group of well-wishers from the local community named as Community Welfare Society, Nallur.



Fig 6: Mothers' Club and MOH Food Exhibition.



Figure 7: Community Welfare Society Meeting.

5.2 Health information in COPC

Health information of NCD patients is maintained confidentially in paper-based medical records and register. There are two types of medical records: one set is kept in the institution and the other is issued to the patient. The medical records with the patient are formulated by the Primary Care Directorate Ministry of Health Sri Lanka and are used across the country. The other record was drafted by the authors,







Figure 8: Medical records.

5.3 Resource Management in COPC

The available local resources are used optimally in providing better health services to the target population. The following activities could be considered as evidence for the effective management of resources:

- Community residents were trained and are involved in diabetic foot care and the monitoring of various parameters related to chronic diseases: peak expiratory flow rate, blood pressure and blood sugar.
- Members of the Mothers' Clubs are involved in maintaining the garden and premises of FHC.
- Pre-intern doctors assist with the monitoring of non-communicable disease progression.
- Medical students conduct periodic clinical audits and are involved in some aspects of service provision, including health education and screening.
- Necessary blood and urine tests are conducted free-of-charge with the sponsorship of University of Jaffna.
- A financial contribution of AHEAD Trust for the Community Empowerment.
- Community Welfare Society, Nallur involves in motivating Mothers' Club and organizing Yoga Clinic and Laughter Therapy Clinics to the Health Staff and the general public.

5.4 Time management in COPC

Patient waiting time and clinicians' burn out are reduced to significant level by adopting an effective appointment system and appropriate strategy for health education. It can be summarized as follows; It is continually visualized on a television available in the waiting room. There is also a wide range of health education materials kept in the waiting room for the patients' reference. Patients are encouraged to read these materials while waiting for consultation. Some health

education materials are formulated by the DCFM and some from the Central Health Ministry. Effectiveness of these materials has been proven by research.

5.5 User-friendly environment in COPC

Both the interior and exterior of health institutions are maintained in a userand environment-friendly manner. The local community is actively involved in maintaining the cleanliness of the health institutions.

5.6 Home visits

University of Jaffna provides the necessary transport services for home visits. It is conducted by the Public Health Nursing Sister (DCFM) with the support of community heath assistants. The home visits are aimed mainly providing rehabilitation, palliative care and elderly care.



Figure 9: Home visit team.

5.7 Quality assurance

High quality health services are planned to ensure periodic clinical audit, routine patient satisfaction surveys, continuous medical education, staff training and motivation. However, activities related to quality improvement are piloted in FHC. Staff monitoring and supervision through CCTV surveillance, and feedback from patients and peers, Individual staff members are informed about their duties

in detail both in verbal and written format. There are various motivation strategies applied to optimize staff performance and appreciating the services of best performers.



Figure 10: Staff awarding ceremony.

5.8 Service effectiveness survey

A suggestion box is maintained at the FHC to collect complaints or suggestions from patients and staff. They are also encouraged to submit their complaints directly or over the phone to the FHC Coordinator or DMO or MO-IC. All complaints are critically analysed during the After-Action Review Meeting (Practice Meetings).

5.9 Continuous materials supply

Separate Inventories are maintained by the DMO, Medical officers MOH and Head, DCFM. However, a combined inventory is maintained in FHC between DMO and Head, DCFM. A senior attendant was appointed as the responsible person to maintain the inventory in FHC. The Northern Provincial Ministry of Health provides almost all the materials necessary for patient management while the material for student teaching are supplied by the Faculty of Medicine, University of Jaffna.

5.10 Continuous Medical Education

Continuous medical education (CME) is provided to doctors and paramedical professionals working in primary care. It is in a view of updating their clinical knowledge. CME workshops are organized by the DCFM staff and the members of Community Welfare Society Nallur. It is conducted on monthly basis. The Institution of Family Medicine provides the necessary support to initiate the CME.



Figure 11: Continuous Medical Education Programme for Doctors.



Figure 12: Paramedical Education Programme.

6. Expected outcomes of COPC

It is expected that the COPC will achieve the following short- and long-term outcomes.

6.1 Short-term outcomes

- a. To improve patient satisfaction.
- b. To improve self-care among patient.
- c. To improve the knowledge and skills of staffs in NCD care.
- d. To empower the community to encage with health-related activities.
- e. To empower the team work.
- f. To establish a referral and back referral system among the COPC institutions and with secondary or tertiary care institutions.
- g. Effective management of common NCDs Nallur MOH Area.
- h. Prevention of common NCDs in Nallur MOH Area.
- i. To provide Effective Undergraduate Primary Care Education;

6.2 Long-term outcomes

- a. To formulate a cohort for common NCDs.
- b. To provide Effective post graduate primary care training programs.
- c. To Scale up the new primary care delivery system to the whole country.

7. Monitoring and evaluation of outcomes

An appropriate method to measure the long term and short-term outcome will be established. The proposed frame work is summarized as below.

7.1 To assess the Community engagement

- a. Patients practice of self-care.
- b. Active participation of community members in primary care delivery system.

7.2 To assess the practice management

- c. Staff involvement in service delivery.
- d. Availability of necessary equipment.
- e. Patient and staff safety measures.
- f. Cleanliness, user-friendly environment for patients and staff.
- g. Safe and quality drug management.
- h. confidentiality, accessibility, accuracy of Heath information.

7.3 To assess the prevention of common non-communicable diseases (NCDs)

- a. Prevalence of risk factors for common NCDs
- b. Prevalence and incidence of common NCDs
- c. Early case detection of common NCDs
- d. Prevention of complication

7.4 To assess the management of common chronic NCDs

- a. Patient satisfaction.
- b. Continuity of care.
- c. Coordination of care: referral and back referral rates.
- d. Effectiveness in disease control: Cost effectiveness of NCDs.

8. Functions of COPC

8.1 Undergraduate Teaching

Primary Care Clinical Teaching is for 3rd, 4th and final year medical students. The FHC is the primary location for Undergraduate teaching and training in Family Medicine. DH, Kondavil and the PMCUs are considered additional locations for Family Medicine teaching. FHC has CCTV, internet services and lecture hall facilities for teaching purposes. Some consultations are recorded by CCTV with the permission of the patient and utilized for further student teaching, Students are allowed into the consultation room during consultation. The involvement of students in the consultation process is explained to the patient beforehand and consent is obtained.

8.2 Health services delivery

It includes specific activities only in COPC and routine activities in other Primary Care Delivery System. Patients found to be positive for common NCDs during community-based screening programs are referred by the area midwives to the FHC. In addition, patients with well-controlled NCDs attending clinics at Teaching Hospital Jaffna are also referred to the FHC. FHC accept the referrals and then allocate the patient to DH or PMCUs abased on the patients' relevant PHM area.

- Conducting Family Planning Clinics: There is a weekend clinic in FHC
 mainly for providing services for working women. All family planning
 activities are preceded with counselling in the DH and PMCUs. Patients'
 autonomy is considered in selecting the method.
- 2. <u>Conducting Immunization Clinics:</u> These are conducted and organized by the midwives. Here opportunistic health promotion is also practiced while children are waiting for vaccination. Topics include nutrition, growth

- monitoring, developmental assessment, etc. Here too a weekend clinic is conducted for working parents.
- 3. Conducting Community-based Rehabilitation and Palliation through home visits: It is for once a week. Trained pre-intern medical officers and PHNS conduct home visits.
- 4. Conducting Healthy Lifestyle Clinics: They are held once in a week in DH and Each PMCUs. People identified to have health risks during day-to-day encounters and through community-based screening are invited to the clinics. These patients' health risks are evaluated by the Medical Officers. Optimum behaviour changing strategies are used for smoking cessation, drug misuse, and promoting physical activity. A Yoga training program is initiated as a part of Healthy Life Style Clinic. It is conducted by a yoga expert.
- 5. Community Health Empowerment Programs: These are conducted in collaboration with AHEAD Trust. The local community is empowered to practice self-sustainable health promotion and income generation. Traditional food industry. Two youths were selected and trained to work in this field and were later recruited as Community Health Assistants. The employees are paid by AHEAD Trust.
- 6. Conducting school-based adolescent health promotion programs: The PHI from DCFM conducts this program once in a week in addition to routine School Medical Inspections. It is mainly to improve the adolescence life skills through teaching Health Science. Any adolescent with behaviour problem, reproductive related issues and low academic performance are referred to FHC.
- 7. <u>Conducting Counselling:</u> A clinical psychologist from the Department of Psychiatry, Faculty of Medicine, University of Jaffna is planning to conducts regular Counselling Clinics.

8. <u>Community-based screening program:</u> This is organized by the PHI at DCFM with the collaboration of other stakeholders. This is conducted once in a month mainly screening for Diabetes, Hypertension, Cervical Cancer and Breast Cancer. People those who become screening positive is referred to FHC and all the others to their area HLC. Subsequently screening positive patient is referred to the relevant institution if needed to Secondary or Tertiary Care Units after an initial evaluation at FHC.





Figure 13: Community based screening.

8.3 Conducting Research

It involves assessing the morbidity profile, formulating culturally validated tools and effective health education materials and formulating real life patients' data.

9. Achievements from 2012 to 2017

- 1. <u>Maintenance of Health information:</u> Information is maintained by a paper-based document. All most all patients with common chronic illness, attending Divisional Hospital, Kondavil have personal medical records. It has been just started in the other two medical institutions (PMCU, Kokuvil and PMCU, Thirunelveli).
- Institutional based chronic illness care: 420 NCD patients in DH, Kondavil, 240 in PMCU, Kokuvil and 270 in PMCU, Thirunelvelli are following the NCD clinics.
- 3. <u>Community based screening:</u> It has been started since 2017 January and decided to conduct at least one per month. The area and the number of people for screening will be selected according to the feasibility. The program is targeted to screen the common NCDs.
- 4. <u>School medical inspection:</u> 109 school health inspections (29133 students) were conducted for last five years.
- 5. Adolescent health promotion: It is in addition to school medical inspection. It has been started in 2014 and 25 programs have been conducted till now. PHI belongs to DCFM conducts the program. It is mainly targeted for life skill training and life style modification of adolescence. The programs are conducted hand-in-hand with Health Science teaching program. Health Science is one of a compulsory subject for students. At the same time PHI will identify and refer any behaviour problem and any other health related issues to Family Health Center.
- 6. <u>Family planning:</u> There are 2643 women get benefitted from this service.
- 7. <u>Immunization:</u> 1519 children got immunized and the coverage was between 95-99%.

- 8. ANC care: This service is advantageous for pregnant women in this area.
- 9. <u>Health Life Style Clinics:</u> It was established in 2014 and patients are receiving this service continuously. A Yoga clinic has been introduced recently. It is organized by Community welfare society Nallur.



Figure 14: Yoga clinic.

10. Community engagement projects: It was initiated in 2014 and the initial project is cottage food industry which helps 5 women for their livelihood. Here the locally available healthy food is promoted among the general public. It is with dual purpose one for providing health food and the other is to generate income. The fifth Year Anniversary of COPC was celebrated by the Community Welfare Society



Figure 15: Fifth year anniversary organized by Community welfare society.

- 11. Continuous medical education: Program for doctors was initiated in 2014 and 27 programs were conducted till now. Each session was accommodated with 20 Primary Care Doctors. Both Local and International experts were involved as resources. CME for paramedical professionals has been introduced in 2017.
- 12. Community based rehabilitation and palliation: It was started from 2012 and helps. 25 patients to step up their living conditions. Here the needy people are identified by the area PHM and refer to the team. The team includes Doctors, Public Health Nursing Sister and Community Heath Assistance.
- 13. <u>Medical education:</u> Clinical appointments have been held for 5 batches of students from 3rd and 4rd year and for 4 batches of professorial students.
- 14. <u>Research:</u> Six publications related to the Model Primary Care were published both in Local and International Journals.
- 15. <u>Documentary films:</u> Two documentary films have been produced by the authors. They have not screened yet.

10. The challenges

It is realized that, collaboration among health care providers and Public has to be improved further. According to the available evidence an efficient collaboration can be established by formulating an IT based integrated health care system.

11. The action plan for next five years

- 1. Formulate a cost effective, efficient and user-friendly information technology suitable for the prevailing COPC.
- 2. Enhance the collaboration among health care workers and general public.
- 3. Formulate a mechanism to continuously monitor the progression of the COPC.

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