

## COMMENTARY

# The Community Mental Health Program in Calabarzon: Preliminary report from an internal review of an innovative service integration initiative for schizophrenia

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### ABSTRACT

The Community Mental Health Program (CMHP) of the Center for Health Development Calabarzon is an initiative that aims to integrate mental health into primary care to facilitate person-centered and holistic services. At the core of CMHP is a referral pathway between health centers and tertiary-level mental health services for the diagnosis and continuing management of persons with mental health conditions, as well as the use of an innovative medication (specifically for schizophrenia). This commentary presents lessons learned from a one-year implementation of CMHP in four pilot sites in the provinces of Rizal and Laguna, which stakeholders in mental health may consider in the design of community-based mental health programs to further the mandate of the Mental Health Act.

**Keywords:** *schizophrenia, mental health services, community mental health services, program evaluation, paliperidone palmitate*

## Introduction

Schizophrenia is a disabling, chronic type of mental health condition characterized by an array of positive and negative symptoms [1]. Diagnosis is primarily clinical (*e.g.*, Diagnostic and Statistical Manual of Mental Disorders [DSM] criteria) [2,3], while management depends on the severity of the condition and may use a combination of antipsychotic agents and non-pharmacologic interventions [4,5].

Schizophrenia is the leading mental disorder among Filipinos, affecting an estimated 1% of the population [6,7]. Although a low prevalence disorder, the burden of schizophrenia is substantial, owing to the cost of treatment; impaired functioning among those affected; and difficulties faced by family members taking care of persons with schizophrenia [8-13]. With the advent of novel therapeutic modalities, expectations when treating schizophrenia now

include functional recovery and social reintegration [4,14-17].

In Region IV-A, schizophrenia (25%) and psychosis (22%) were the most frequently reported mental health conditions to the National Mental Health Program in 2019. Because of the chronic issue of relapses in the treatment of schizophrenia using conventional medicines at the community level, the Center for Health Development Calabarzon (CHD IV-A) ventured to use a second-generation antipsychotic (SGA) long-acting injections (LAI) in selected communities in Laguna and Rizal through the implementation of the Community Mental Health Program (CMHP).

In this commentary, the results of an internal review of CMHP are briefly reported.

## Community Mental Health Program

The CMHP aims to integrate mental health into primary care to facilitate person-centered and holistic services, consistent with the mandate of Republic Act 11036 (Mental Health Act of 2017), and the overarching values and principles of primary health care.

At the core of CMHP is a framework for the management of patients with schizophrenia in a primary care setting. The referral pathway (Figure 1) envisions that persons suspected to have mental health conditions identified at the community level will first be assessed by health centers prior to referral to an identified tertiary mental health facility, which will provide diagnosis and initiate treatment. Monitoring of patient compliance will be the principal responsibility of health centers, with periodic follow-up scheduled in tertiary mental health facilities.

The CHD IV-A also procured an SGA LAI, paliperidone palmitate (PP1M), which was distributed to four pilot implementation sites (*i.e.*, Jala-Jala in Rizal, and Mabitac, Sta. Maria, and Siniloan in Laguna). The manufacturer of PP1M, Johnson & Johnson (Philippines), Inc. (JJPI), with their due diligence, provided product training to the recipients' Municipal Health Officers (MHOs) and community workers, and hired psychiatrist-consultants to provide support for any queries from the pilot sites.

Over the one-year implementation period, a total of 84 patients were enrolled in the program and provided with PP1M.

## Patient and Caregiver Perspective

A total of six patients and their caregivers enrolled in the program in Siniloan and Santa Maria in Laguna were interviewed by one of the authors (ATA) during their scheduled regular consultation in July 2020 to elicit feedback on their experience with PP1M under the program. These individuals were previously diagnosed with schizophrenia by other mental health services based on DSM 5 criteria, and were started by their previous provider on either first- or second-generation antipsychotics while also being given a first-generation antipsychotic LAI.

Overall, patients reported more improvements in most symptom categories of schizophrenia, but this was especially pronounced in terms of positive symptoms. This change was corroborated by caregivers, one of whom even reported that they no longer restrain their patient when at home. Five of the six patients also had better functionality after administration of PP1M (the sixth patient interrupted treatment when community quarantine was imposed). There were also fewer or no adverse effects with the PP1M compared to their prior medications, and no incidents of hospitalization was reported.

Patients and caregivers were vocal in expressing a preference for the PP1M as it was provided for free under the program and it had a convenient dosing schedule, both of which were helpful in ensuring adherence to treatment. They were, however, concerned with the continuation of medication once the program ends.

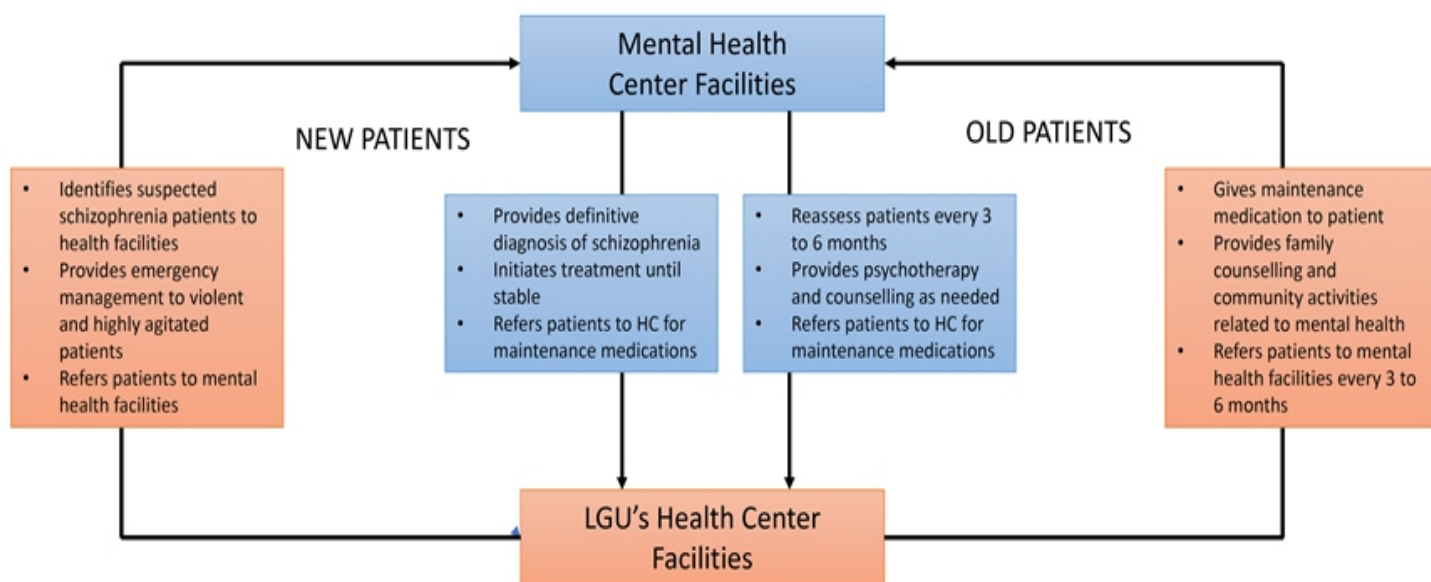


Figure 1. Diagrammatic workflow of the referral system under the Community Mental Health Program

## Prescriber perspective

Municipal Health Officers (MHO) from four towns where the program was implemented were interviewed by another author (KNAB) during program monitoring to determine their experiences on the use of PP1M among patients.

Overall, the MHOs indicated initial hesitation and lack of confidence in prescribing the medication as they had limited prior exposure to basic and clinical knowledge on PP1M. This was addressed with the training provided at the start of the program, as well as the support offered by the consultant psychiatrist engaged under the CMHP.

While side effects from the drug were a predominant concern early in program implementation, only weight loss and akathisia were encountered as issues with regards to tolerability, both of which were managed accordingly. PP1M treatment changes were rare, as only one patient had been discontinued treatment due to extrapyramidal side effects.

Adherence was perceived to be important for effective treatment, relapse prevention, and early management of any side effects. This, in turn, was linked to less healthcare resource utilization, earlier return of functionality, and reintegration into the community. While there were no pragmatic barriers identified, the MHOs felt that the availability of a support system that will enable patients and their caregivers to reach treatment will encourage adherence.

Moving beyond the program, sustainability is a cause for concern as medications and the services of a consultant psychiatrist were all provided for free under the program.

## Cost Analysis: Regional Office Perspective

The cost of treatment for schizophrenia involves those related to medications, services provided by healthcare providers, transportation for patients in crisis from the community to the hospital, hospitalization of relapse patients, and lost income by caregiver during the period of hospitalization (see Table 1 for assumptions). Using these parameters, the Regional Office undertook a cost analysis to compare the cost of PP1M had the 84 patients enrolled under the CMHP been given usual care (*i.e.*, oral and conventional depot treatment).

As shown in Table 2, the cost of medications for a year is 30% higher under the PP1M scenario when compared to oral and conventional treatment. However, this difference is

offset by the costs related to hospitalization since none of the patients enrolled under the CMHP required hospitalization during the one-year implementation and follow-up. Thus, there is approximately an 11% net savings (or about 800 thousand pesos) in resources under the PP1M scenario.

Of note, this analysis only considered some of the costs related to the use of PP1M in the management of schizophrenia. Potential savings may also have been realized from the simpler inventory required for a single drug. The value of intangible benefits from PP1M use will also have to be considered, among which are the improved psychiatric care at the community level and the recovery of patients provided treatment.

## Lessons Learned

This commentary presents three lessons learned from the implementation of CMHP.

First, the integration of mental health services at the primary care level in the local setting is a realistic goal, but this requires strong leadership and support at various levels for resource mobilization, field implementation, and ensured sustainability. This is because of the chronic and relapsing nature of mental health conditions which requires a longer-term outlook in terms of the provision of appropriate therapeutic modalities. Integration of mental health into primary care ensures better access to individuals who require these services, and better outcomes including recovery and social integration [22].

Second, there still is a need for a professional psychiatrist at either the regional or provincial level who will undertake diagnosis and initiate treatment for new cases, and provide periodic assistance to local health officers in the continuing management of patients. To this end, CHDs and/or Provincial Health Offices will need to consider adding a psychiatrist to their human resource complement, or setting-up a telepsychiatry referral service as was done by the CHD IV-A. Other models for supporting and training health workers at the primary care level have also been discussed elsewhere [23].

Lastly, innovative treatments may prove to be more economical and financially viable in the long run when total disease costs are considered, despite the seemingly larger upfront price that these may entail over conventional treatment. The decision point should not just be the price per dose of a treatment intervention but also the potential savings from reduced health resource utilization, as well as the other tangible and intangible benefits. The experience

**Table 1.** Parameters and assumptions of the cost analysis (N = 84 patients)

Parameter	Assumptions (all cost values in PHP)			
	PP1M scenario	Source	Treatment as usual scenario	Source
Cost of drugs and care at community level for one year	Drug: 6,794.00/dose/month Care: 106.00/visit/month	Note 1	Drug and care: 100.00/day	Note 3
Cost of transfer of relapsed patients from community to tertiary facility	No relapsed or hospitalized patient during the one-year program implementation	Note 2	69% of patients will relapse	[18]
			Two-way transfer: 7,000.00	Note 4
Cost of in-patient care for relapsed patients for one-month hospitalization			69% of patients will relapse	[18]
			Hospitalization cost per patient: <ul style="list-style-type: none"> <li>• 3,150 for the first 4 days</li> <li>• 450 for accommodation per day for succeeding days</li> <li>• 200 for medicines and psychiatric care for succeeding days</li> </ul> 50 days maximum length of stay	Note 5
Caregiver costs (direct and indirect) for one-month hospitalization			69% of patients will relapse	[18]
			1:1 patient-to-caregiver ratio	
			Loss income: 400.00/day Expenses: 400.00/day	Note 6
			50 days maximum length of stay	[20]

NOTES: **1.** This is based on the actual cost of drug as procured by the Center for Health Development, while cost of care is an internally-generated estimate of the equivalent value of care provided by health care workers in Rural Health Units. **2.** There were no reported instances of relapse or hospitalization among the 84 patients given PP1M during the one-year follow-up period under the program. Hence, the corresponding costs were nil. **3.** Cost of drug and care is based on an internally-generated estimate of the equivalent value of the cost of drug as procured by the Department of Health and the value of care provided by health care workers in Rural Health Units. **4.** Based on rates for conduction outside Metro Manila charged by the National Center for Mental Health [19]. **5.** Based on admission costs charged by the National Center for Mental Health [19]. **6.** Based on minimum wage rates in Calabarzon [21].

**Table 2.** Cost analysis comparing use of PP1M vs oral and conventional depot treatment for schizophrenia

Parameter	Cost scenarios		Difference	
	PP1M	Treatment as usual	Absolute	Relative
Cost of drugs and care at community level for one year	Php 6,955,200.00	Php 3,024,000.00	Php (3,931,200.00)	-130%
Cost of transfer of relapsed patients from community to tertiary facility	0.00	2,067,700.00	2,067,700.00	100%
Cost of in-patient care for relapsed patients for one-month hospitalization	0.00	406,000.00	406,000.00	100%
Caregiver costs (direct and indirect) for one-month hospitalization	0.00	2,320,000.00	2,320,000.00	100%
<b>Total</b>	<b>Php 6,955,200.00</b>	<b>Php 7,817,700.00</b>	<b>Php 862,500.00</b>	<b>11%</b>

with the use of PP1M as to its effectiveness, safety, and cost-effectiveness at the community level are aligned with reports from other settings [24-26].

The Department of Health and other stakeholders may wish to consider these lessons from the CMHP in the design of community-based mental health programs. Meanwhile, researchers are encouraged to undertake a more formal assessment of CMHP, and a nuanced analysis of the stakeholder perspectives presented in this commentary, to contribute to the evidence base for mental health service integration at the primary care level.

## Conflict of Interest Statements

Dr. Abala and Dr. Buenaventura received professional fees from Johnson & Johnson (Philippines), Inc. to support the implementation of the Community Mental Health Program. Dr. Antonio received professional fees from Johnson & Johnson (Philippines), Inc. outside of the submitted work. All other authors declare no conflict of interest.

## Publisher's Note

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