

An Evaluation of the Contraceptive Logistics Management Information System as a Programme

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Abstract: The evaluation of any programme, using the appropriate model is likely to foster a wealth of information that could possibly provide policy-programme direction, and at the same time, strengthen research-policy interface. The aim of this paper is to ascertain the extent to which the Contraceptive Logistics Management Information System (CLMIS) as a programme in Jamaica's primary care public health sector, bears relevance, coherence, effectiveness, efficiency, impact and sustainability. These factors are representative of the aforementioned six principles governing the Organization for Economic Cooperation and development-Development Assistance Committee Model (OECD-DAC). A qualitative approach was taken in obtaining the necessary information from the health care professionals across the fourteen (14) parishes of Jamaica. This approach was used owing to its naturalistic inquiry for clear interpretation. The two-page, 10-item instrument, which was used to collect the information, abided within the ambit of the aforementioned principles of the Evaluation Model, and the said information was recorded by parish. The analysis was done via theme triangulation according to each of the six evaluation principles/criteria. The unit of analysis was 72 health care providers. Majority of the participants responded to each question within the affirmative, but with explained limitations in some instances, as outlined in the results of this paper. The evaluation evidenced that CLMIS as a programme, for the most part, has been deemed favourable to four out of the six principles governing the OECD-DAC Model.

Keywords: Family Planning, Evaluation, Contraceptive Logistics Management Information System.

1. INTRODUCTION

Governed by the Family Planning Act of Parliament of Jamaica, 1970, the National Family Planning Board (NFPB) has the national responsibility to fulfill specific sexual and reproductive health-related obligations as part of its population planning and development regime. This enables the continued strengthening of the CLMIS through capacity building (in Contraceptive Forecasting Methodologies, Monitoring and Evaluation, Qualitative and Quantitative Reporting) of key health care providers; the conducting of CLMIS surveys biennially since 2013, and the monitoring of Family Planning clinic records and supplies.

With the aforementioned in place, how may one be able to accurately determine the true success of the CLMIS, if it is not evaluated as a programme? This question spurred the initiative, to evaluate the CLMIS as a programme for the first time - conducted over the period January to March, 2021, and involved Senior Public Health Nurses (4) and Midwives (68). The OECD-DAC Evaluation Model was considered prudent for this exercise, given its nature and governing principles. This, by no means intended to discount the routine quarterly clinic monitoring, which over the years, has been the 'watchdog' for enabling the robust strengthening of the CLMIS, with a view to recording, reporting, inventory management control, forecasting measures, ordering procedures, storage and other conditions. However, from a scholarly standpoint, one may argue that often-times, an evaluation tend to provide more detail or depth than that which monitoring may provide.

This paper delineates the literature review; captures the way the evaluation was conducted; noted the results that emanated from the exercise; aired the various arguments between the literature and the findings; then drew the relevant conclusions, and made recommendations accordingly.

2. REVIEW OF THE RELATED LITERATURE

Contraceptive Logistics Management (CLM) means ensuring that “the right goods in the right quantities and in the right condition are delivered to the right place at the right time for the right cost”, and that where logistics problems affect the ability to fulfil these rights, then this may pose a threat to health systems (United States Agency for International Development, 2009). Such mechanism for CLM acts as a crucial element to Family Planning, which bears intimate relations with all 17 Sustainable Development Goals and its governing themes. In other words, Family Planning tends to “accelerate progress across the five SDG themes; namely: People, Planet, Prosperity, Peace, and Partnership” (Starbird, Norton & Marcus, 2016).

Family Planning is not only about commodities, but rather policies, sexual and reproductive health services, the rights of men and women to plan pregnancy, maternal and child health, gender equality, and socio-economic development (Starbird, Norton & Marcus, 2016). This stands to reason why investment in Family Planning is considered by scholars to be a very good decision for any government (Stenberg, Axelson, Sheehan, Anderson, Gu’Imezoglu, Temmerman, et al., 2014); besides, it has proven to be cost-effective (Crawford, Grant, Black, Joseph, Dosunmu & McLean, 2019), especially when knowledge-base and technical know-how applied, per forecasting and procurement measures. According to the World Health Organization, 2019, investments in Family Planning have benefitted economies and quality of life – evidenced, whereby approximately 885 million women of reproductive age were able to delay pregnancy. Such benefit also means reduced risk of maternal and child death, and that women would likely become more empowered, and therefore be able to “enhance their status and choices in settings where educational and economic opportunities are expanding” (DaVanzo & Adamson, 1998).

Using the OECD-DAC Evaluation Model as a tool to evaluate programmes was quite useful, owing to the contours of its tenets. These tenets or evaluation criteria are Relevance, Coherence, Effectiveness, Efficiency, Impact and Sustainability (OECD, 2019). The author maintained that together, these criteria “enable the determination of the merit, worth or significance of an intervention. These six criteria have come to serve as the core reference for evaluating international development and humanitarian projects, programmes and policies. Beyond development co-operation, evaluators and commissioners also use the criteria in other areas of public policy”. This kind of evaluation is geared towards achieving better programmatic and project results in terms of contribution to better policies to advance the 2030 Agenda, achieve national contributions to the Paris Agreement, and other goals (OECD, 2019).

In continuing, OECD (2019) delineated the following definitions for each principle:

- (1) Relevance – “The extent to which the objectives of a development intervention are consistent with beneficiaries’ requirements, country needs, global priorities and partners’ and donors’ policies. Note: Retrospectively, the question of relevance often becomes a question as to whether the objectives of an intervention or its design are still appropriate, given changed circumstances”.
- (2) Coherence – “The extent to which other interventions (particularly policies) support or undermine the intervention, and vice versa”.
- (3) Effectiveness – “The extent to which the intervention achieved, or is expected to achieve, its objectives, and its results, including any differential results across groups”.
- (4) Efficiency – “The extent to which the intervention delivers, or is likely to deliver, results in an economic and timely way”
- (5) Impact – “The extent to which the intervention has generated or is expected to generate significant positive or negative, intended or unintended, higher-level effects”
- (6) Sustainability – “The extent to which the net benefits of the intervention continue, or are likely to continue”.

Theoretical Framework

This section looks at two theories which were considered applicable to this research; namely: Social Exchange Theory and New Public Management Theory. The former postulated that with the absence of investment in human capital, this could result in failure, hence crime and poverty (White, 2007). In essence, where basic needs are not met, then the outcome is likely to be unsatisfactory (Pitso & Kheswa, 2014). An example which was put forward by the authors, made

reference to adolescent pregnancy being treated as an act of “delinquency, sexual permissiveness and moral decay”, and that without support, the outcome of the adolescent mother could result in repeated pregnancy and other social unfavourableness such as poverty (Pitso & Kheswa, 2014, p. 537).

On the point of New Public Management, this theory goes against the slow bureaucratic pace of doing business (Osborne & Gaebler, 1993). This theory called for “the empowerment of citizens, thus pushing control out of bureaucracy into the community, and measuring the performance of agencies with focus on outcomes rather than inputs” (pp. 15, 19). The authors added that New Public Management is also goal and mission driven, and has redefined clients as customers, offering choices – a way of reinventing government.

3. METHODOLOGY

Approach

This research has taken a qualitative approach, which was considered prudent because of its propensity regarding naturalistic inquiry for clearer interpretation and understanding of the methodology and the experiences of the subjects (Anthens, 2011). It also provided scope for Socratic questioning; and tends to create avenues for stronger research-policy interface, despite the fact that it cannot generalise, owing to its limited sample size. The focus to capture the information relied on stipulated objectives, which rested within the ambit of the six aforementioned principles/criteria of the OECD-DAC Evaluation Model.

Sampling Method and Sample Size

The use of qualitative approach to the sampling method of choice, showed potential in employing various philosophical-related assumptions; methods of inquiry, (Creswell, 2009); and propensity to enable meanings that are not necessarily experimentally measured (Denzin & Lincoln, 2000). As part of its primary data collection, this qualitative research has used non-probability sampling method such as purposive/judgmental.

The team of 72 health care providers, who were selected by their Regional Supervisory Leads for the Contraceptive Forecasting Training, automatically became a part of the evaluation process, owing to the role that they played in contraceptive recording, reporting, storage and forecasting measures. A formal letter was written by the NFPB to the heads of the Regional Health Authorities and Senior Public Health Nursing Supervisors, informing of the relevant capacity building and evaluation exercises that would be undertaken. The agenda was also shared in a timely manner and the dates were secured by each Senior Public Health Nursing Supervisor, who disseminated same to the participants of their choice. Some of these supervisors were also a part of the evaluation process.

Instrument Design and Data Capture and Analysis

A two-page, 10-item instrument was designed, representing the six (6) tenets/principles/criteria of the OECD-DAC Evaluation Model. It also delineated the objectives accordingly, with a view to ascertaining whether each of these tenets (Relevance, Coherence, Effectiveness, Efficiency, Impact and Sustainability) were being employed within the CLMIS, and whether there were scope for sustainability with consideration to the SDGs, especially given the intertwining of Family Planning among the 17 SDGs. The instrument was both closed- and open-ended, and was administered face-to-face by the Director of Monitoring, Evaluation and Research of the National Family Planning Board. The information was captured by parish, with representatives from the various clinics across parishes, reporting according to the questions asked.

Note that Jamaica has 14 parishes: Kingston, St. Andrew, St. Thomas, St. Catherine, Portland, St. Mary, St. Ann, Clarendon, Manchester, St. Elizabeth, Trelawny, St. James, Westmoreland, and Hanover. The unit of analysis was 72 health care providers (4 Senior Public Health Nurses; 68 Midwives) from the various Family Planning clinic facilities across parishes and health regions, referred to as the Regional Health Authorities. The health regions comprised Southeast Regional Health Authority (Kingston, St. Andrew, St. Thomas, St. Catherine), Southern Regional Health Authority (Clarendon, Manchester, St. Elizabeth), Northeast Regional Health Authority (Portland, St. Mary, St. Ann), and Western Regional Health Authority (Trelawny, St. James, Westmoreland, and Hanover).

One of the advantages of qualitative instrument is that it enables the capturing of in-depth information, and at the same time, provides wider avenues for further probing. Of note too is that “the scientific and disciplined enquiry approach was based on the collection, analysis and interpretation of the data” (Gay & Airasian (2000). Information was captured via tape recorder, as per the participant’s consent. The rapporteurs also produced a formal report from the evaluation sessions.

Analysis was done via theme triangulation according to each of the six evaluation criteria.

Strength of the Methodology

This scholarly piece of work is timely and ventures into an area where the subject matter is under-researched. The CLMIS was being evaluated for the first time, as a programme. The information obtained, added life to the CLMIS as a programme, in the sense that the use of the Evaluation Model in question has explored and articulated the lived experiences of the health care professionals from a field perspective. From an epistemological standpoint, this research collected the information directly from the source. However, this piece of work recognised that evaluation may not be enough, owing to the absence of a baseline, hence Causal Attribution was expounded upon. The literature described Causal Attribution as an “ascription of a causal link between observed changes and a specific intervention” (Organization of Economic Cooperation and Development, 2018).

Limitations

The small sample size naturally accompanies the use of qualitative approach, because of its inability to generalise, unlike quantitative approach. Regardless, however, this does not detract from the value of the lessons gleaned from the inductive nature of this piece of work.

The subject matter is under-researched, hence challenges in finding scholarly pieces that may be used as benchmarks.

Given that this was the first time that the CLMIS was being evaluated as programme, there was no baseline. Nevertheless, this did not prohibit the efficient execution of the evaluation exercise, as Causal Attribution was considered, owing to the regular routine quarterly clinic monitoring, plus the biennial CLMIS Surveys, which are contributory factors to the CLMIS process.

Positionalities

Positionality may take an insider or outsider approach. Both the interviewer and the participants were insiders, given their roles as health care professionals. An outsider approach was however taken by the participants having shared experiences from the field. The participants expressed frustration at the following: Frequent Non-adherence to Family Planning appointments by some patients (assumedly as a result of COVID-19 restrictions and the closing of some clinic facilities since COVID-19); stock-out of essential Family Planning methods because of the rapid increase in demand since COVID-19; anomalies in forecasting measures at the procurement level; increase in pregnancy and unmet need. The latter is indicative of women in their reproductive years (15-49) who are sexually active, not on any contraceptive methods and are not desirous of becoming pregnant, yet doing nothing to prevent the pregnancy. Simply put, “The concept of unmet need points to the gap between women's reproductive intentions and their contraceptive behavior” (World Health Organization, 2021).

The positionalities of the respondents swung between care and concern for the clients, to being deeply frustrated. This pendulum swing between insider-outsider approach was considered natural by the literature, which postulated that positionalities were not static (Mullings, 1999; Pratt & Hanson, as cited in Mullings, 1999), but rather possessed fluidity and multilayered complexity of human experience” (Dwyer & Buckle, 2009).

4. RESULTS

The results are hereby triangulated according to themes which emanated from the tenets of the OECD-DAC Evaluation Model; namely: Relevance, Coherence, Effectiveness, Efficiency, Impact and Sustainability. Responses to the questions under each tenets are provided accordingly by parish.

Relevance

All the 72 respondents across parishes expressed favourably to the usefulness of the Family Planning Register and Logbook within the context of relevance, adding transparency and quality to recording and reporting.

Coherence

On the point of the reporting instruments (including the Family Planning Register, Logbook and Stockbook), possessing the capacity for coherence in strengthening the CLMIS, four (4) options were noted: Reporting, Storage, Procurement and Forecasting. Majority of the parishes responded in the affirmative, except for the procurement option. However, the reservations were as follows:

Storage

There needed to be designated areas for Family Planning devices and materials, as storage was inadequate, hence sometimes not conducive to optimum standard.

Procurement

All the parishes intimated that procurement at the authority level often resulted in delay in the distribution of the contraceptive methods to the parishes, non-receipt of the prescribed amount of contraceptive methods ordered, and stock-out of key methods. The respondents recommended that members of the procurement authorities be trained in contraceptive forecasting, and that there be representatives of health care professionals from the field at the procurement decision-making table; otherwise, contraceptive logistics would likely continue to not be treated with urgency, hence possible negative sexual and reproductive health (SRH) issues may arise. Note that there were no expressed reservations from the participants of Clarendon, Manchester, and St. Elizabeth – the team responded favourably to all the aforementioned options.

Effectiveness and Efficiency

In view of the effectiveness and efficiency of the Contraceptive Logistic Management Information System (CLMIS) as a programme, in benefitting the nation's interest, all parishes responded in the affirmative, with one caveat: Five (5) individuals expressed concern that if procurement at the authority level were to maintain its current stance, then the likely repercussions would be stock-out of Family Planning methods, increase in unwanted and unintended pregnancy, and increase in the incidences of STIs including HIV.

However, it was specifically articulated that when compared with earlier years, this current programme has enabled strengthening across the CLMIS spectrum.

Impact

The respondents posited that the clinic monitoring had helped to keep them alerted and improved in adhering to the standards of recording, reporting, storage and others. In continuing, they pointed out that as a result, the wider public was better served when it comes to a much improved SRH service delivery. "We see this as impactful", they stated. Despite, however, procurement issues ought to be rectified urgently, as it gets in the way of progress.

Sustainability

In ascertaining the sustainability of the CLMIS as a programme, the respondents intimated that, with the training delivered by the National Family Planning Board (NFPB) in Contraceptive Forecasting, Monitoring and Evaluation and the use of the Pivot Table for quality reporting; the use of the Intra-Uterine Contraceptive Device, and other long-acting reversible contraceptive methods; Parenting; Men's Health; the consistent clinic monitoring; and the evaluation of capacity building (using the Kirkpatrick Evaluation Model); sustainability would be highly likely, if these actions were to be maintained. However, if the CLMIS were to not experience a fall-off, then population planning and development would not be negatively impacted. This was expressed within the context of SRH and SDGs, relating to maternal and child health, gender equality, non-poverty, and education.

As a point of recommendation, parishes within the Western Region indicated that the myths and misconception for Jadelle were no longer an issue, thus recently resulted in favourable uptake. With this positive turn of event, Nurses and Midwives should be trained in administering same, rather than depending on only the physicians and anesthesiologists. The other parishes stressed the importance of SRH-related education, using various forms of media, as this would likely decrease poverty, ignorance regarding meeting reproductive health needs, maternal and child mortality and morbidity, *inter alia*.

5. DISCUSSION

The literature points to CLM as encompassing six rights, that if exercised in a full-some way, would likely be beneficial to health systems (United States Agency for International Development, 2009). In addition to such profound argument, I believe it is imperative to add that CLM also denotes implementation of sound contraceptive forecasting measures; efficiently providing access of contraceptives to all who needs it without causing harm; 'beef up' Family Planning programmes so that unmet needs may be significantly reduced or eradicated; treat CLMIS as an important SRH indicator from which tools may be generated to measure success along the CLMIS spectrum.

The findings revealed positive responses to the principles of the model as per applicability to the CLMIS as a programme; however, there were expressions of pitfalls regarding procurement which was a sore point of concern. The delay in procurement, despite the application of forecasting methodologies at the facility's level, envisioned implications such as stock-out, increases in pregnancy and STIs, and gross inconvenience to the client. This kind of drawback is consistent with the kind of unfavourable outcome that Social Exchange Theorists purported, in the sense that where investment is absent, then the outcome would likely be negative (White 2007; Pitso & Kheswa, 2014). Similarly, New Public Management theorist considered this kind of "slow-paced" measure as not acting in the best interest of the customer, as it is instead, more in keeping with the bureaucratic model of the industrial era (Osborne & Gaebler, 1993). Note that although bureaucracy was expressed as a concern by the health care providers, investments such as capacity building, monitoring, CLMIS surveys, *inter alia* were considered crucial and productive, and should not be ignored as benefits to the process.

Causal Attribution

Routine monitoring of the Family Planning clinics and health departments, and biennial surveys of the CLMIS have been ongoing, and where anomalies were being identified, they were treated with urgency and addressed accordingly. The relevant adjustments took the form of capacity building, advisement of the standardised disposal of expired and/or damaged contraceptive products, replenishing of stocks, *etcetera*.

A specialised tool have been used during the clinic monitoring operations, and captures information regarding record-keeping, stock status, storage conditions, product conditions and arrangements, fire safety equipment, and frequency of supervisory visits (by Nursing Supervisors).

Findings from the surveys have from time to time been presented at conferences, where feedback for better practices were obtained and applied where relevant.

These kinds of monitoring/'watchdog' techniques, coupled with addressing the identified gaps, along with the continued commitment of the health care professionals to adhere to standards, have helped in the success of the CLMIS.

6. CONCLUSION

From the details of the evaluation, Contraceptive Logistics Management Information System as a programme, for the most part, has been deemed favourable to four out of the six principles governing the OECD-DAC Model. These principles are relevance, coherence, effectiveness, and efficiency. Of note, however is that procurement and forecasting at the authority level, threatens impact and sustainability. The respondents feared that should this practice continue, then heightened implications would be highly likely over a period of time to come. Such risks are in regard to stock-out, not being able to efficiently meet SRH/Family Planning needs, unplanned and unintended pregnancy, increase in STIs, increase in poverty, increase in maternal and child mortality and morbidity.

7. RECOMMENDATIONS

The following were the recommendations which emanated from the evaluation exercise:

Members of the procurement authorities should be trained in contraceptive forecasting methodologies, and that there be representation(s) from the field level at the procurement decision-making 'table'. This would likely enable the efficient meeting of the SRH needs of the clients, otherwise this may threaten stock-out, which must be avoided at best in order to abide within the ambit of the SDGs.

Train Nurses and Midwives in administering Jadelle to patients, as this would likely reduce the burden of having only physicians and anesthesiologists administer same.

Establish designated areas for Family Planning methods at each facility across parishes, as this would heighten scope for ideal/optimum storage condition.

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