

## Evaluation of the Routine Childhood Immunization Program Process at Primary Health Care Centers in Salah Al-Dean City



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### الخلاصة:

**خلفية البحث:** تقويم برنامج التحصين الروتيني للطفولة دون خمس سنوات مهم للصحة العالمية.

**الهدف:** تهدف الدراسة إلى تقويم مهام وواجبات برنامج التحصين الروتيني للطفولة في مراكز الرعاية الصحية الأولية في مدينة صلاح الدين.

**المهنية:** دراسة وصفية استخدم فيها أسلوب التقويم. نفذت الدراسة في مراكز الرعاية الصحية الأولية في مدينة صلاح الدين. تهدف الدراسة إلى تقويم مهام وواجبات برنامج التحصين الروتيني للطفولة في مراكز الرعاية الصحية الأولية في مدينة صلاح الدين ولفترة من 10 كانون الثاني الى 1 تشرين الثاني من عام ٢٠٢١. أختيرت عينة متوفرة "غير احتمالية" متعددة المراحل شملت (32) مركز رعاية صحية أولية (16) مركز رعاية صحية أولية رئيسي و 16 مركز رعاية صحية أولية فرعي) والمشاركين شملوا (32) مسؤول برنامج. تم تطوير إستبيانه مصممه من قبل منظمة الصحة للبلدان الأمريكية ومنظمة الصحة العالمية لغرض الدراسة وتتكون من أداة لتقويم برنامج التحصين الروتيني للطفولة. تم تحديد صدق المحتوى الاداة من قبل لجنة مكونة من (18) خبير. ويتم تحديد من خلال معامل ارتباط ألفا كرونباخ. جمعت البيانات من خلال إستخدام أداة الدراسة وتقنية المقابلة الشخصية كوسيلتين لجمع البيانات. تم تحليل البيانات من خلال تطبيق أسلوب تحليل البيانات الإحصائي الوصفي كالتكرار والنسبة المئوية والوسط والوسط الحسابي للقيم والمدي.

**النتائج:** أشارت نتائج الدراسة إلى أن جميع مراكز الرعاية الصحية الأولية الرئيسية وغالبية مراكز الرعاية الصحية الأولية الفرعية تتمتع بمستوى جيد من التقويم العام لمهام وواجبات برنامج التحصين الروتيني للطفولة (100%) (81.25%) على التوالي.

**الاستنتاجات:** إستنتجت الدراسة بأن برنامج التحصين الروتيني للطفولة يتم تنفيذه بشكل جيد وفعال في جميع مراكز الرعاية الصحية الأولية الرئيسية ومعظم مراكز الرعاية الصحية الأولية الفرعية في مدينة صلاح الدين.

## ABSTRACT

**Background:** The evaluation of routine childhood immunization program for under five years are important for global health.

**Objectives:** The study aims at evaluating the Routine Childhood Immunization Program Process at Primary Health Care Centers in Salah Al-Dean City

**Methodology:** A descriptive design, which is using the evaluation approach, has been conducted at Primary Health Care Centers in Salah Al-Dean City in order to evaluate the Routine Childhood Immunization Program Process from January 10<sup>th</sup> to November 1<sup>st</sup>, 2021. A multistage sample "non - probability" convenient sample of (32) primary health care centers (16 main and 16 sub main) distributed in Salah Al-Dean Health Directorate. An instrument is developed of the Pan American Health Organization and World Health Organization for the purpose of the present study (PAHO &WHO, 2013). The study instrument is consisted of the evaluation of Routine Childhood Immunization Program Process at Primary Health Care Centers. Instrument content validity is determined by a panel of (18) experts. Internal

consistency reliability is determined through Cronbach alpha correlation coefficient. Data are gathered throughout the utilization of the study instrument and the structured interview technique as data collection method. The Data of the study have been analyzed by the utilization of descriptive statistical data analysis approach which includes (frequencies, percentages, total scores and ranges).

**Results:** The study results indicate that all of the main primary health care centers and majority of the sub primary health care centers have good level of overall evaluation of the Routine Childhood Immunization Program process (100%) (81.25%) respectively.

**Conclusion:** The study concludes that the Routine Childhood Immunization Program process is well sufficiently and efficiently implemented at all of the Main Primary Health Care Centers and most of the sub primary health care centers in Salah Al-Dean City.

**Keyword:** Routine Childhood Immunization Program, Process, Primary Health Care Centers, Evaluation

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## INTRODUCTION

Immunization program remains one of the greatest cost-effective public health strategies that contributed immensely to decrease disease and death associated with vaccine- preventable diseases (VPD). Despite the great gains made from routine childhood immunization coverage, millions of children are still not fully immunized in developing countries. Almost more than (60%) of the (18.7) million children who were not completely vaccinated lived in ten nations, including Iraq, Pakistan, the Philippines, Indonesia, Nigeria, Uganda, India, the Democratic Republic of the Congo, Ethiopia, and South Africa in 2014 <sup>(1)</sup>.

Nowadays, the implementation of a routine childhood immunization program is a real achievement over infectious diseases or a discovery of a novel.

Routine immunization is a cornerstone for the prevention of emerging, re-emerging or new contagion diseases and controlling them, whether they occur naturally or intentionally <sup>(2)</sup>. More recently, it has been reported that many interventions that contribute to reducing missed immunization opportunities among children, which include training health personnel, improving the availability of vaccines in health care facilities, and replacing unfeasible cold chain equipment <sup>(3)</sup>.

The evaluation of the routine childhood immunization program is important for several reasons. First, it allows workers in the immunization program to discover gaps and obstacles that hinder the implementation of the program and address them in a

timely manner and second, to learn about the benefit of the program and its contribution to controlling diseases and reducing the mortality rate among children (4).

Evaluation of routine childhood immunization program for under five years is essential to measure evolution across countries and also tool to examine and improve the general status of the routine childhood immunization program. The evaluation provides the best solutions to the weakness points in the programs, and enables to manage the immunization programs more efficiently and effectively. It also helps to evaluate and enhance existing activities, as well as plan and implement new activities (5,6).

## **AIMS OF THE STUDY**

The study aims at evaluating the Routine Childhood Immunization Program Process at Primary Health Care Centers in Salah Al-Dean City.

## **METHODOLOGY**

A descriptive design, which is using the evaluation approach, is carried throughout the current study to evaluate the Routine Childhood Immunization Program Process at Primary Health Care Centers to from January 10<sup>th</sup> to November 1<sup>st</sup>, 2021.

The study has been carried out at Salah Al-Dean Health Directorate in Salah Al-Dean City. A multistage "non -probability" convenient sample of (32) primary health care centers (16 main and 16 sub main) distributed in Salah Al-Dean Health Directorate. Multistage sampling helps researchers to magnet a sample from a population by means of smaller and smaller groups at each stage and creates data collection more applied for large populations. In this case, the sample for the present study is selected at different levels that include health care sectors and different primary health care centers as main and sub ones.

The study instrument is developed of the Pan American Health Organization and World Health Organization to evaluate the Routine Childhood Immunization Program Process at Primary Health Care

Centers (7). Items of the instrument are measured through (3) levels type Likert scale of good = (141.7-170), fair = (113.4-141.6), and poor = (85-113.3). It is comprised of the following:

### **1. Planning and Programming:**

This section includes (18) items relative to planning and programming. This section is measured through (2) level dichotomous scale of Yes = 2 and NO = 1. Except item (6,7,8,9,10, and11) which are measured as Yes = 1 and NO =2.

### **2. Organization and Coordination:**

This section includes (7) items relative to organization and coordination. This section is measured through (2) level dichotomous scale of Yes = 2 and NO = 1.

### **3. Training:**

This section includes (9) items relative to training. This section is scored on (2) level dichotomous scale of Yes = 2 and NO = 1.

### **4. Supply of Vaccines, Syringes, and Supplies:**

This section is comprised of (6) items relative to supply of vaccines, syringes, and supplies. This section is measured through (2) level dichotomous scale of Yes = 2 and NO = 1.

### **5. Cold Chain Network:**

This section includes (9) items relative to cold chain network. This section is measured through (2) level dichotomous scale of Yes = 2 and NO = 1. Except item (4) which are measured as Yes = 1 and NO =2.

### **Safe Vaccination:**

This section includes (9) items relative to safe vaccination. This section is measured on (2) level dichotomous scale of Yes = 2 and NO = 1. Except item (4) which are measured as Yes = 1 and NO =2.

### **7. Execution:**

This section includes (9) items relative to execution. This section is scored through (2) level dichotomous scale of Yes = 2 and NO = 1. Except item (1 and 8) which are measured as Yes = 1 and NO =2.

### 8. Information System:

This section is comprised of (7) items relative to information system(IS). This section is scored on (2) level dichotomous scale of Yes = 2 and NO = 1.

### 9. Monitoring:

This section of the instrument includes (8) items are measured on (2) level dichotomous scale of Yes = 2 and NO = 1.

### 10. Supervision:

This section includes (3) items relative to supervision. This section is measured through (2) level

dichotomous scale of Yes = 2 and NO = 1. Instrument content validity is ascertained by a panel of (18) experts. Internal consistency reliability is determined through split-half technique and computation of Cronbach alpha correlation coefficient. Data are gathered throughout the using of the study instrument and the structured interview technique as means of data collection. Data of the study have been analyzed by the utilization of descriptive statistical data analysis approach which includes (frequencies, percentages, total scores and range

## RESULTS

**Table (1): Overall Evaluation of the Routine Childhood Immunization Program Process at Main Primary Health Care Centers in Salah Al-Dean City**

List	Overall Evaluation of the process		
	Scale	Frequency	Percentage
1	Poor (85-113.3)	0	(0.0%)
2	Fair (113.4-141.6)	0	(0.0%)
3	Good (141.7-170)	16	(100%)
	<b>Total</b>	<b>16</b>	<b>(100%)</b>

Results, out of this table, indicate that the overall evaluation of the Routine Childhood Immunization Program Process is good at all Main Primary Health Care Centers (100%) in Salah Al-Dean City.

**Table (2): Overall Evaluation of the Routine Childhood Immunization Program Process at Sub Primary Health Care Centers in Salah Al-Dean City**

List	Overall Evaluation of the process		
	Scale	Frequency	Percentage
1	Poor (85-113.3)	0	(0.0%)
2	Fair (113.4-141.6)	3	(18.75%)
3	Good (141.7-170)	13	(81.25%)
	<b>Total</b>	<b>16</b>	<b>(100%)</b>

Results, out of this table, reveal that the overall evaluation of the Routine Childhood Immunization Program process is good at the majority of the Sub Primary Health Care Centers (81.25%) in Salah Al-Dean City.

## DISCUSSION

### **Part I: Discussion of Overall Evaluation of the Routine Childhood Immunization Program Process at Main Primary Health Care Centers in Salah Al-Dean City**

Overall Evaluation of Routine Childhood Immunization Program Process at Main Primary Health Care Centers in Salah Al-Dean City, reveal that the process is good at all Main Primary Health Care Centers in Salah Al-Dean City. Such finding presents empirical evidence to support that the Main Primary Health Care Centers in Salah Al-Dean City have delivered adequately oriented immunization related services.

A related a cross-sectional and evaluative study is conducted at the central deposit of vaccines and nineteen health care centers randomly selected in the health district of Comé, Benin in 2015. The finding of the study reveals that process of the level of performance of Expanded Program on Immunization supply chain and logistics management is acceptable <sup>(8)</sup>.

Galvão and others (2019) have stated that evaluation of immunization rooms at primary health care units in the Fortaleza city, Ceará, Northeast of Brazil. A sample of (eighty-nine) immunization rooms of six Regional Health Coordination in the Primary Health Care Unit is selected to evaluate of vaccination rooms. The finding of the study depicts that process of the overall aspects/technical procedures and cold chain ingredients has indicated a regular classification <sup>(9)</sup>.

### **Part II: Discussion of Overall Evaluation of the Routine Childhood Immunization Program Process at Sub Primary Health Care Centers in Salah Al-Dean City**

Analysis of such overall evaluation of Routine Childhood Immunization Program Process at Sub Primary Health Care Centers in Salah Al-Dean City, the result depicts that the overall evaluation of such process is good at the majority of the Sub Primary Health Care Centers. A rationale can be provided for such finding that the most of the Sub Primary Health Care Centers in Salah Al-Dean City has taken the application of these immunization program process seriously.

Salah and colleagues (2015) have conducted a study to evaluate the quality of Expanded Program on Immunization (EPI) service delivery at primary health-care centers in Jijjiga Zone Somali District, Eastern Ethiopia. The finding of the study reveals that the process of quality of Expanded Program on Vaccination provision is adequate <sup>(10)</sup>.

## CONCLUSION

The study concludes that the Routine Childhood Immunization Program process is well sufficiently and efficiently implemented at all of the Main Primary Health Care Centers and adequately employed at the most of the Sub Primary Health Care Centers in Salah Al-Dean City.

## RECOMMENDATIONS

1. The Routine Childhood Immunization Program process should be monitored and valued periodically and on regular base.
2. The Routine Childhood Immunization Program at the Main and Sub primary health care centers should be occupied with all the necessities of the process for the benefits of consumers.
3. Further research can be carried out on a national scale with variety of settings and samples.

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