

## Maternal and Child Health Using the Digitalization of the MCH Handbook Paciran Primary Health Care

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### ABSTRACT

**Background:** Puskesmas is a Community Health Center which is a health service facility that aims to carry out public health efforts and first level individual care. Puskesmas prioritize promotive and preventive efforts to achieve optimal public health status. In the current industrial era 4.0, almost all activities have been digitized, the puskesmas should also have started to be digitized.

**Purpose:** The data collection system at the Paciran Health Center still uses a manual system and patients often do not carry Maternal and Child Health (MCH) books. This research aims to accelerate the performance of the midwives at the Puskesmas so that it does not take up a lot of time and effort. And make it easier for the public so they don't have to carry the MCH handbook and see the examination results without opening the MCH handbook.

**Methods:** The method of data collection used by the author in this research is observation, interviews and literature study. With the Java programming language with Netbeans IDE 8.0.2 as an editor and MySQL as a database.

**Results:** The result of this research is that the data collection process becomes faster and more regular. Then the process of making reports can also be faster and neater. And also the patients are helped because they can know their progress, even though they do not carry or do not have the MCH book.

**Conclusion:** This research aims to speed up the performance of midwives at the Paciran Community Health Center by digitizing the data recording system which was previously still manual. By using the Java programming language and MySQL database, this system allows the recording and reporting process to be faster and more structured. Apart from that, patients also find it easy to access examination results without having to carry a KIA book. The research results show that this digitalization increases the efficiency of services at the Community Health Center and makes it easier to access information for patients.

**Keywords:** digitalization, java, maternal and child book, primary health care, UML

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**BACKGROUND**

In the industrial era 4.0, almost all activities have been digitized. The definition of digitization according to Marilyn Deegan is a technique of changing from all forms of printed files or others to digital presentation. [1]. Vice versa, in recording data at the Puskesmas, it should also have started to be digitalized to make it more efficient. Puskesmas is a Community Health Center which is a health service facility that aims to organize public health efforts and first-level individual care according to the Ministry of Health is a Community-Based Health Effort (UKBM) which implemented by the community, from the community, for the community, and with the community. The goal is to empower the community and make it easier for people to get basic health services. In its service, the posyandu has a book, namely the Maternal and Child Health Book (KIA). The MCH handbook is a tool for early detection of maternal and child health disorders or problems, a communication and counseling tool with important information for mothers, families and communities regarding services, maternal and child health including referrals and packages (standards) of MCH services, nutrition, immunization and child development. [2] The problems found in the Paciran health center are the process of recording and processing data toddlers, mothers, pregnant women, and data for cadres or officers at Posyandu are still done manually using handwriting so that it becomes inefficient in processing, searching, and preparing activity reports.

In addition, mothers often do not bring Maternal and Child Health (MCH) books when they come to posyandu, so cadres have to record repeatedly on different paper which results in data redundancy. The purpose of building the Posyandu application is expected to accelerate the performance of Posyandu cadres so that it doesn't take up a lot of time and effort. And make it easier for the public so that they don't need to carry the MCH handbook and can see the examination results without opening the MCH handbook. It is a website-based MCH book digitization platform.

The feature of mothers as mothers' friends is to directly connect with chat bots and be able to consult directly with health workers.

The children's feature as a media to support the examination of the development of children with various age ranges is complete digitally along with stimulation advice.

**METHODS**

The research method carried out by researchers is as follows:

**Research Design**

Problem analysis – Research data collection - application design- trial use of digital applications- application revision-final Result

**Data Collection Method****1) Observation**

Observations were made by researchers to collect data and information by directly observing the activities carried out at the Paciran Health Center

**2) Interview**

Interviews are very necessary for this research process, in order to obtain accurate information. Researchers conducted question and answer directly to informants including coordinating midwives and posyandu cadres.

**3) Library Studies** Researchers also conduct library studies using journals that are on the internet, to support the information needed in this research.

Location in Paciran Primary Health Care, July until August 2023, total population 50 mother and child, sampel size 47 and sampling metode random sampling. Variable in this research is digitalization and mother and child handbook, data collection and data analysis

## RESULTS

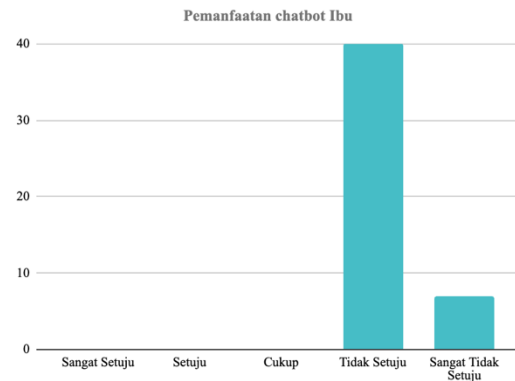


Figure 1

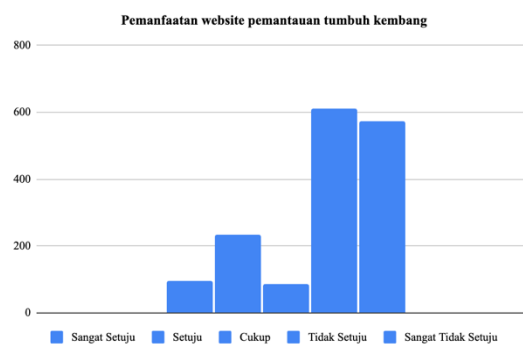


Figure 2



Figure 3 kiaweb.org

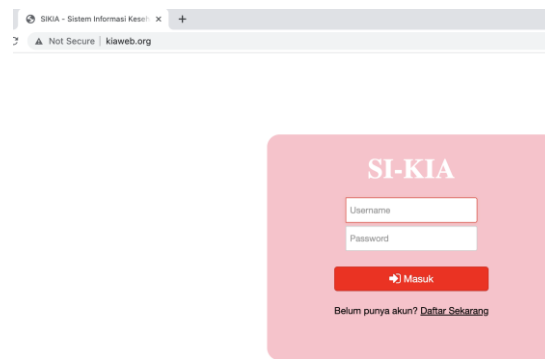


Figure 4 SiKIA

## CONCLUSION

Based on the results of research using this website can provide effectiveness in work. Broadly speaking, based on the results of the design and creation of the website for the Digitization of Maternal and Child Health Books (KIA) at the Paciran Health Center, using this system makes the data collection process faster and more organized. Then the process of making reports can also be faster and neater. And also the patients are helped because they can know their progress, even though they don't carry or don't have the MCH book.

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