KESANS: International Journal of Health and Science
2808-7178 / 2808-7380
http://kesans.rifainstitute.com/index.php/kesans/index

Development of Health Profile Compilation Based on Digital Applications

Firmansyah
Dinas Kesehatan Provinsi Kepulauan Bangka Belitung, Indonesia
firmansyah76.dinkes@gmail.com

Article Information
Submitted: **10 May 2025**
Accepted: **20 May 2025**
Online Publish: **30 May 2025**

Keyword: Health Profile; Digitalization; Health Information System; Health Policy;

Abstract
This policy paper explores the development and implementation of a health profile system powered by digital applications. In many regions, the manual process of compiling health profiles hampers timely decision-making and reduces data accuracy. A transition to a digital, application-based approach is crucial for enhancing data quality, accessibility, and integration across health sectors. This paper identifies current challenges, presents policy alternatives, and recommends the establishment of a centralized, modular, and cloud-based platform. The initiative aims to strengthen evidence-based policymaking and accelerate the digital transformation of Indonesia's healthcare system.

How to Cite **Firmansyah/Development of Health Profile Compilation Based on Digital Applications, Vol. 4, No. 8, 2025**
DOI https://doi.org/10.54543/10.54543/kesans.v4i8.357
e-ISSN/p-ISSN **2808-7178 / 2808-7380**
Published by **CV. Rifainstitut/KESANS: International Journal of Health and Science**

Introduction

Health profile is a form of health information that contains a picture of health in each district/city, and is compiled based on routine data and survey data from the Health Center to the Regency/City Health Office (Angela & Irsyad, 2023). The preparation of health profiles is an integral part of the health information system that functions to comprehensively describe public health situations and conditions. However, the preparation process often encounters obstacles in terms of accuracy, completeness of data, and reporting time. Along with the advancement of information and communication technology, the preparation of digital application-based health profiles is a very potential solution (Basri et al., 2020). Digitization will not only speed up the process of data collection and processing, but also improve the quality of the information produced (Choirunnissa & Oktarina, 2025); (Ningsih, Supriyati, & Listiyorini, 2025).

Law Number 17 of 2023 concerning Health states that health development as one of the national development efforts is directed to achieve awareness, willingness and ability to live a healthy life for every population in order to realize an optimal degree of health. To realize this, many supporting factors are needed, including the availability of valid data. The existence of valid data can be used by decision-makers in setting a policy. Sustainable Health Development aims to increase awareness, willingness and ability to live a healthy life for everyone so that the highest level of public health can be realized (Suprapto & Arda, 2021); (Hidayat, Putri, & Yumna, 2022). This requires adequate resource support, as well as the right direction of health development policies and strategies (Wanimbo, Aedah, & Sapioper, 2021). However, it is often difficult for policymakers in the health sector to make informed decisions due to limitations or unavailability of accurate, accurate and fast data and information (Surya, Gita, & Kismanto, 2024)

Data and information as a very strategic resource in the management of health development must be of high quality (Virgy, Kautsar, & Paruntu, 2020). Quality data is born from integrated data governance, not from data scattered across various technical units or individuals. Quality data is the result of good coordination between the substance side of the data (the content and usefulness of the data) and the methodological side of the data (how the data is generated) (Aini & Nasution, 2025). The Health Profile of the Province of the Bangka Belitung Islands as one of the products of data and information management that describes a comprehensive health portrait which is an overview of the situation and state of public health in the Province of the Bangka Belitung Islands and is published annually. The purpose and purpose of publishing this profile book is to display various health data and information as well as other supporting data described by analysis and displayed in the form of tables and graphs. In addition, it is also to convey the achievements of health development in the entire area of the Bangka Belitung Islands Province.

With the number of health centers as many as 64 Puskesmas and 7 Regencies/Cities coupled with the condition of the archipelagic area, this is a very big challenge in monitoring health services, so the idea of the Provincial Health Office to develop a health service data system and application-based reporting emerged. With the existence of this health service data system and application-based reporting, it will certainly have a very good impact, especially for the Bangka Belitung Islands Provincial Health Office and generally Health Offices throughout Indonesia. So here the role of the Provincial Health Office is how to expand the use of the application appropriately so that it can speed up the process of submitting reports to the Center related to Health data and information or

Health profiles. In the preparation of health profiles, there are several common problems that often arise, including: incomplete data, data misrepresentation, poor data quality, limited resources, and lack of coordination between agencies. In addition, other challenges include changes in health priorities, limitations in data analysis, and a lack of understanding of the importance of health profiles. To overcome these problems, improvement efforts are needed in various aspects, such as digital-based data input (application), improving data quality, training for health profiling officers, strengthening coordination between agencies, and increasing understanding of the importance of health profiles.

The purpose of the creation and development of this Health Profile Application is to, among others, display accurate, up-to-date, integrated, and easily accessible health data and information through applications/digital. Provide a digital platform for systematic and structured management of health data and information. Provide convenience in the preparation of Health Profile documents automatically and on time. Improve data accuracy, integration, and data reliability to support central and regional development planning.

Meanwhile, the main benefits of this Health Profile application are, it makes it easier to prepare the annual Health Profile in a timely manner, ensures the availability of accurate, real-time, and consistent health data, accelerates the analysis and reporting process, improves work efficiency and data transparency across units, supports data-driven planning and decision-making

Method

The literature study method or literature review is carried out by searching and collecting references related to the Health Profile of the Bangka Belitung Islands Province in 2023 and 2024, so that it can support the methods used in the research. This study conducted observations at the Bangka Belitung Islands Provincial Health Office, aiming to collect information and data on the Health Profile of the Bangka Belitung Islands Province in 2023 and 2024. The interview process stage is carried out directly with the party concerned with the data collection process activities in the research using the 5W1H method. The stages of designing the process/algorithm in the research using the Exploratory Data Analysis (EDA) method and system design using the Waterfall method

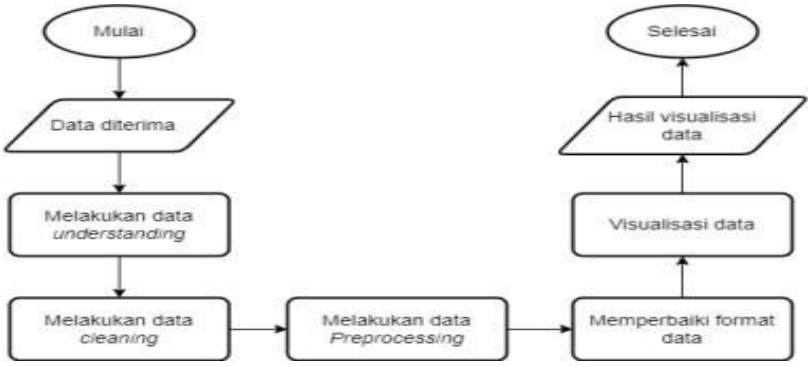


Figure 1. EDA method process flow

Result and Discussion

Results

The digitization of health information systems has become a top priority in improving service quality and data-driven decision-making. According to the Ministry of Health of the Republic of Indonesia (2022), the digital transformation of health is carried out through the strengthening of integrated information systems, which is manifested in the SATUSEHAT initiative, which is a national platform that connects various health applications from the central to regional levels. Research conducted by Purwanto (2020) shows that the use of digital applications in regional health data management can increase the efficiency of the reporting process by up to 30% compared to manual methods. The application also allows for better data visualization, as well as facilitates cross-sector coordination in compiling regional health profiles. In the context of health data management, WHO (2020) in the Global Strategy on Digital Health 2020–2025 document states that the digitization of health information must meet the principles of interoperability, data security, and user-centered design. This is important to ensure system sustainability and prevent data fragmentation between applications.

On the other hand, a study from Saputra & Lestari (2021) discussing the implementation of e-health applications in Banyumas district shows that the main challenge lies in infrastructure readiness and limited human resource capacity in operating the new system. Therefore, the implementation strategy needs to include training, mentoring, and incentives for health workers who use digital applications in their daily activities. In addition, a study from Bappenas (2022) emphasizes the importance of strengthening regional health data architecture to encourage the use of big data in the planning process. Systematically and real-time digital health profiles are one of the main sources in evidence-based policy formulation.

Ministry of Health, scientific publications, related regulations, case studies of the implementation of health information systems in several regions, as well as SWOT Analysis to identify strengths, weaknesses, opportunities, and threats in the implementation of a digital-based health profile application system. Below is presented an Implementation Roadmap if using the Application in the process of compiling a Health profile and the results of the Health profile gypsy analysis. The following is shown in the image below the Application Implementation Roadmap and SWOT Analysis of Health Profile Digitization.

Figure 2. Application Implementation Roadmap and SWOT Analysis of Health Profile Digitization.

SWOT Analysis of Health Profile Digitization

Strengths

1. More efficient data processing: Digital applications speed up the process of data collection and analysis.
2. High accuracy: The digital system reduces manual input errors, resulting in more valid data.
3. Supporting regulations: There are national regulations that support the digitization of health information systems.

Weaknesses

1. Infrastructure limitations: There are still areas with limited networks and technological devices.
2. Low HR awareness: Not all health workers understand the importance of digital data management.
3. Technical skills dependency: System operations require uneven technical skills in all areas.

Opportunities

1. Strengthening the quality of health data: Digitalization opens up opportunities for standardization and validation of data.
2. Government policy support: Digital transformation is driven by national policy directions.
3. Cross-sector collaboration opportunities: Digitalization enables data integration across agencies and other sectors.

Threats

1. Barriers to technology adoption: There is resistance from users to changes in working methods.
2. Data security: The risk of leakage or misuse of sensitive health data.
3. Invasion of foreign applications: Potential dominance of foreign systems if local applications are not optimally developed.

In addition, it was also submitted related to the "Creation of the Health Office Profile Website" focusing on the process of designing, developing, and implementing the website as the official information media of the Health Office. This aims to understand how a website can help in disseminating information related to health programs, community services, and agency transparency. Observations are carried out through direct studies, interviews with related parties, and technical analysis in website creation.

In the process, several challenges were found, such as the collection of data that has not been digitized, system security, and the need for regular content updates. The technologies used include HTML, CSS, JavaScript for the display (frontend), and PHP or Node.js for data management (backend). The results of the observations show that this website can improve access to health information for the public and help the Health Office in digitizing their services. However, to be more effective, periodic maintenance, security improvements, and staff training are needed to manage applications or website content independently. The Health Office needs a digital platform to disseminate information related to health programs, services, and policies. Before the existence of websites,

information was only conveyed through print media or social media that was less structured.

A digital-based system is needed that can be easily accessed by health workers. Observe the application development process, from design to implementation. Analyze the challenges that arise in the creation of the application. Evaluate the effectiveness of the application in conveying data and information to the Central Government until it spreads to steakholders.

Discussion

From my observations, reports and facts show that almost all provinces in Indonesia still use manual methods in the preparation of health profiles, which causes delays in reporting and decision-making. Meanwhile, the Health Office as a rule set out in Law Number 39 of 2009 is required to submit health profile reports or data to the Ministry of Health of the Republic of Indonesia every March. In the future, the pilot project using my digital application shows an increase in data efficiency and accuracy. However, the challenges faced include limited internet access, skills of health workers, and the lack of national standards related to data integration between applications, of course, we will improve along with the launch of this application. With the development of a national application that is modular, open, and can be integrated with various existing health information systems. Below are examples of data that are still presented in manual form as follows:

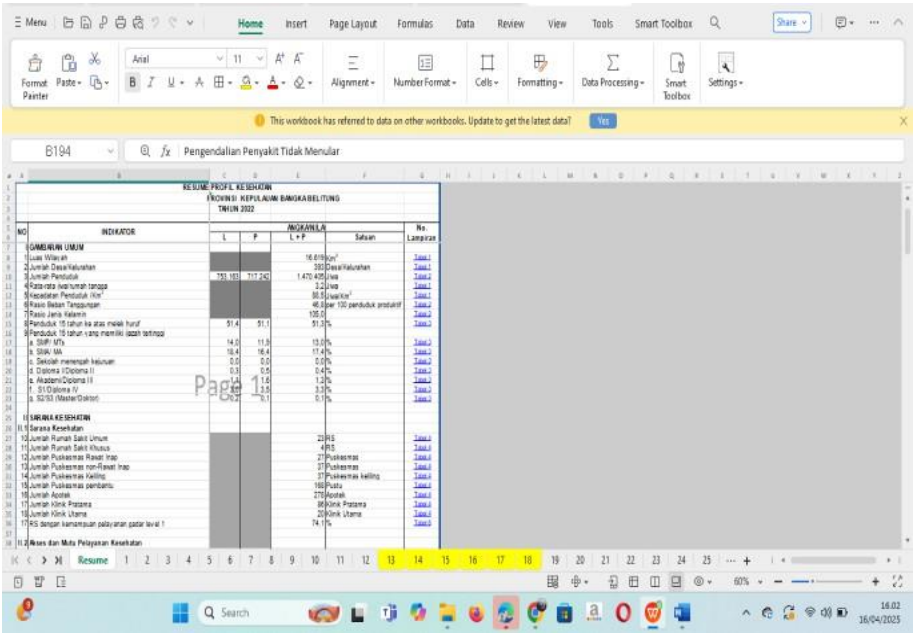


Figure 3. Template Manual Health Profile

The data presented is a data base that is typed or input one by one into the excel program as many as 84 indicators which contain data that is manually input into the tables. Determining this job takes a long time, so my hope is that in the future we can get accurate data with just one touch of the laptop screen, the data we want has appeared. In the sense that the data has been presented by the health center admin and automatically the data has been integrated into one application (Health data profile).

With the integration of health profile data into the application system, the Provincial Health Office only monitors and can download data that has been input by the health center admin through the e-puskesmas application, while the district/city health office is in charge of validating the data. As an illustration of the comparison of the effectiveness of manual and digital methods in the preparation of health profiles,

The results of my analysis show that the digitization of health profiles not only speeds up reporting times, but also improves data quality and integrity. With data integration between healthcare facilities through a single application, the workload of technical personnel can be significantly reduced. In addition, cost efficiency of up to almost 70% makes this approach feasible to be implemented as a regional policy based on effectiveness and efficiency. The following are presented the results of the time simulation study and data accuracy in the two methods based on a case study of Infectious Diseases and Non-Communicable Diseases in the Province of Bangka Belitung Islands.

Quantitative Analysis of Digital Health Profiling

The following data is the result of simulations from five health centers in the Bangka Belitung Islands Province which shows significant differences in terms of time, accuracy, and operational costs. The images and graphs above show that digital methods provide significant advantages in three main aspects: time speed, data quality, and cost efficiency. Therefore, the adoption of digital applications in the preparation of health profiles is highly recommended as a digital transformation strategy in the regional health sector.

1. **Health Profile Preparation Time**: The digital method saves more than 10 days compared to the manual method.
2. **Data Accuracy and Consistency**: Digital methods show excellence in completeness and consistency, as well as significantly lower in input errors.
3. **Operational Cost Efficiency**: The use of digital applications cuts costs by more than half compared to manual methods.

Data Processing Analysis using applications

The data used in the data visualization research for the Health Profile of the Bangka Belitung Islands Province in 2023 used data from the Regency/City Health Office. Data processing was carried out using 64 health centers from 47 sub-districts which were variables for the Bangka Belitung Islands Provincial Health Profile data. This study uses the EDA method by carrying out several stages of data processing such as data *understanding* for initial data understanding and data *preparation* as data processing so that it is easy to carry out the next visualization stage. The results of data visualization are implemented with a *website* using the PHP programming language. Here we present the Table of Categories of Health profile data of the Bangka Belitung Islands Provincial Health Office, which we display in the form of a manual report.

Table 1
Population

DESCRIPTION OF DISTRICT/CITY	POPULATION
Province	**1.531.530**
Bangka	342.058
Bangka Tengah	210.482
Bangka Barat	215.818
Bangka Selatan	208.491
Belitung	191.405
Belitung Timur	132.835
Pangkalpinang	230.441

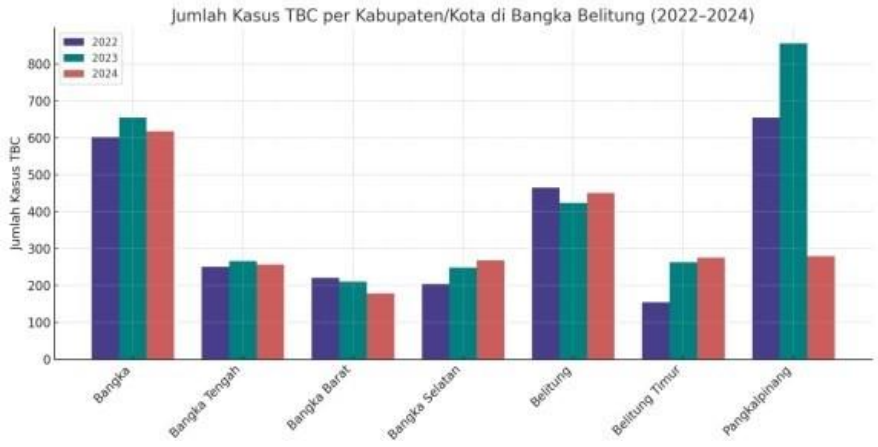
Data source: BPS Bangka Belitung Islands Province in 2024

Report on Analysis of Priority Diseases in the Province of Bangka Belitung Islands (Year 2022–2024). Bangka Belitung Islands Provincial Health Office

1. Tuberculosis (TB)
2. Dengue Hemorrhagic Fever (DHF)
3. HIV/AIDS
4. Malaria
5. Leprosy
6. Hypertension
7. Diabetes Mellitus
8. IVA Cancer
9. Breast Cancer
10. Mental Disorders (ODGJ)

Analysis of Total TB Cases (2022–2024)

The following graph shows the distribution of the number of Tuberculosis (TB) cases in each district/city in the Bangka Belitung Islands Province during the period from 2022 to 2024. Pangkalpinang shows the highest number of cases consistently, especially in 2023. Meanwhile, Bangka, Belitung, and South Bangka also recorded high cases every year. Several other regions such as West Bangka and Central Bangka experienced slight fluctuations, while East Belitung showed a significant upward trend.

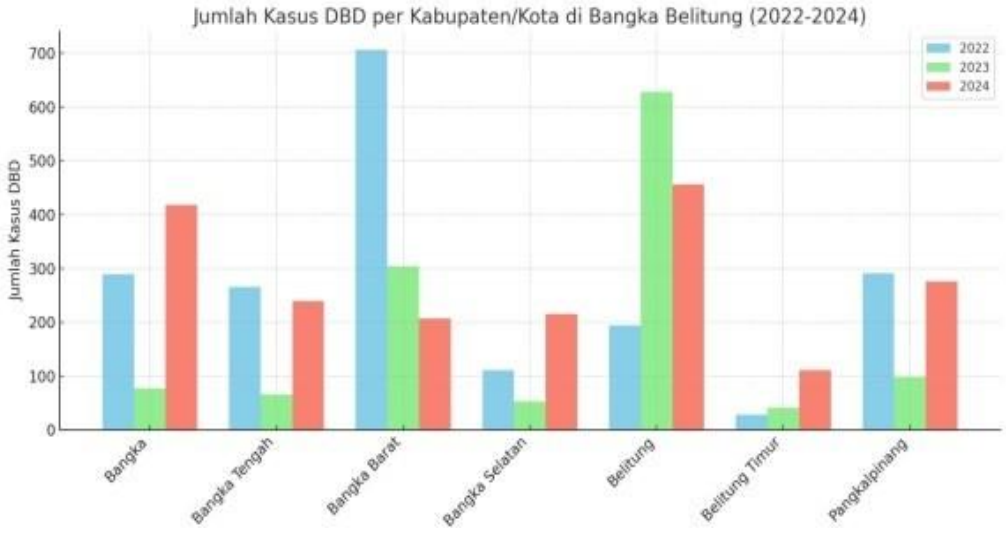


Graph 1. Total TB Cases (2022–2024)

Given the increasing trend of cases in some regions, region-based interventions and digital approaches need to be strengthened. The application of digital applications for monitoring TB cases is expected to help in accelerating the process of detection, reporting, and handling more effectively.

Analysis of Total Dengue Cases (2022-2024)

The graph below shows the number of Dengue Hemorrhagic Fever (DHF) cases in each district/city in the Bangka Belitung Islands Province from 2022 to 2024. It can be seen that there are fluctuations in cases in various regions. For example, Belitung experienced a significant surge in 2023, while Pangkalpinang showed a moderate increase in 2024.

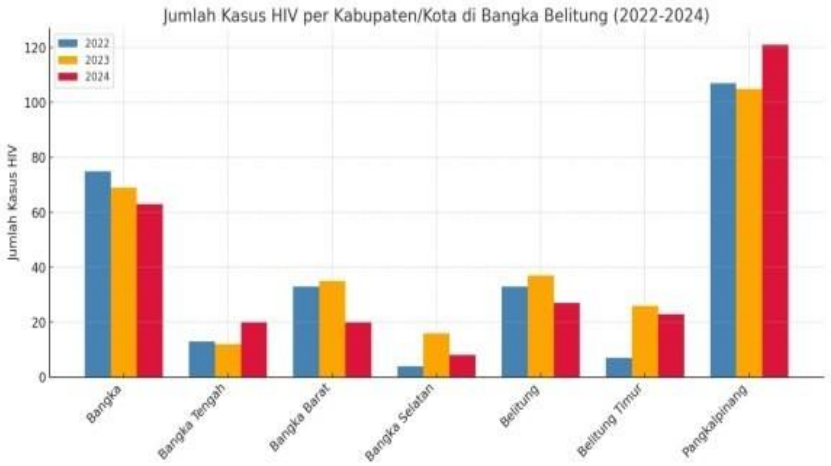


Graph 2. Total Dengue Cases (2022-2024)

This data can be used as a basis for evaluating dengue prevention and control programs at the district/city level, as well as to determine region-based interventions with a digital and predictive approach in the future.

Total HIV Case Analysis (2022-2024)

The following graph shows the trend in the number of HIV cases in each district/city in the Bangka Belitung Islands Province from 2022 to 2024. In general, Pangkalpinang is the region with the highest number of HIV cases consistently every year. There has been a decrease in cases in several regions such as Bangka and West Bangka from 2022 to 2024, but a significant increase has occurred in East Belitung and Central Bangka.



Graph 3. Total HIV Cases (2022-2024)

This trend suggests that HIV prevention and early detection programs need to be strengthened, especially in areas with increasing cases. Data-driven approaches and digitization of health profiles can help in monitoring developments and designing more targeted interventions.

Analysis of Total Malaria Cases (2022-2024)

The following graph presents the number of Malaria cases in all districts/cities in the Bangka Belitung Islands Province over the past three years. West Bangka stands out as the region with the highest number of cases in 2022, with the number reaching more than 100 cases. However, there was a significant decline in the region in 2023 and continued to decline in 2024. Other regions such as Bangka and Central Bangka experienced slight fluctuations, while Belitung, East Belitung, and Pangkalpinang showed very low or zero cases.

Graph 4. Total Malaria Cases (2022-2024)

The overall decrease in malaria cases shows the results of the intervention that is quite successful. However, special attention needs to be paid to ensure the sustainability of prevention programs, especially in areas with a high case history such as West Bangka.

The use of digital systems for rapid monitoring and response will strengthen future efforts to control the disease.

Total Leprosy Case Analysis (2022-2024)

The graph below shows the development of the number of leprosy cases in each district/city in the Bangka Belitung Islands Province over the past three years, namely 2022 to 2024. From this data, it can be seen that Belitung is the area with the most significant spike in leprosy cases, especially in 2023 and 2024. South Bangka also occupies a high position with a consistent number of cases. On the other hand, areas such as Pangkalpinang and West Bangka show a relatively lower but fluctuating number of cases.

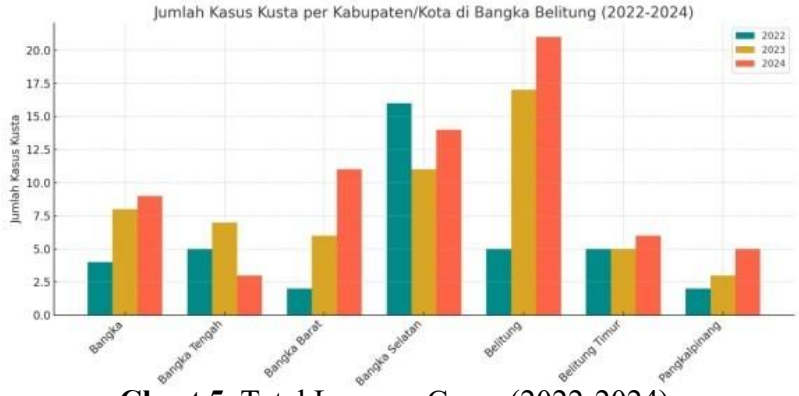
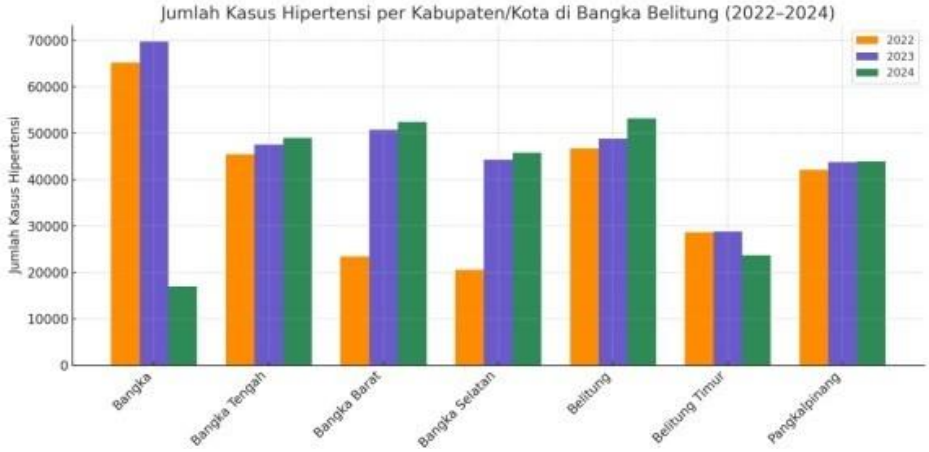


Chart 5. Total Leprosy Cases (2022-2024)

This trend points to the need for a more aggressive approach in the handling of Leprosy, especially in areas with a tendency to increase cases. Digitization of region-based health data will be very helpful in detecting early and following up on cases systematically and quickly.

Total Hypertension Case Analysis (2022–2024)

The following graph shows the trend in the number of Hypertension cases in all districts/cities in the Bangka Belitung Islands Province during the period 2022 to 2024. From the data displayed, it can be seen that Belitung and West Bangka have experienced a significant increase over the past three years. On the contrary, Bangka showed a sharp decline in 2024 after previously experiencing an increase in 2023. Pangkalpinang and Central Bangka have a relatively stable trend, while East Belitung recorded a decrease in cases in 2024.

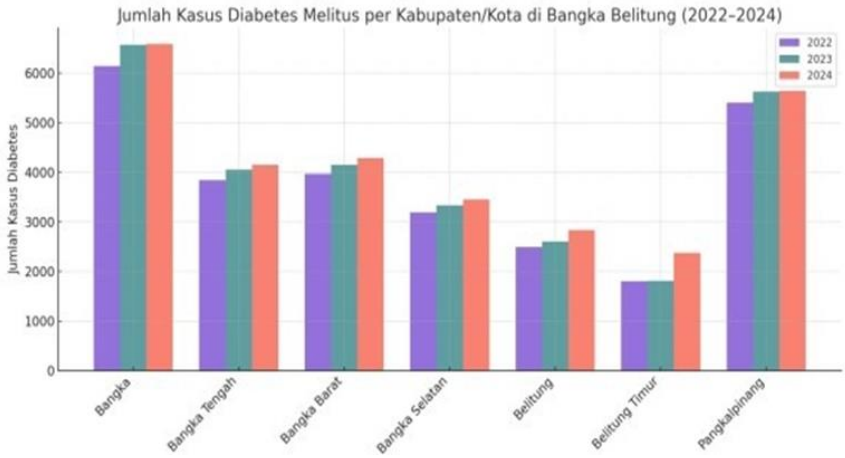


Graph 6. Total Hypertension Cases (2022–2024)

Hypertension is one of the non-communicable diseases with a high risk of complications, so the increase in cases in some areas needs special attention. It is necessary to strengthen promotive and preventive services, as well as digital systems for more comprehensive and real-time public health monitoring.

Total Analysis of Diabetes Mellitus Cases (2022–2024)

The following graph presents the number of cases of Diabetes Mellitus in each district/city in the Bangka Belitung Islands Province during the period from 2022 to 2024. From the data displayed, Bangka ranks highest consistently, followed by Pangkalpinang, West Bangka, and Central Bangka. All regions show a fairly stable trend of increasing the number of cases from year to year. A significant increase is seen in East Belitung in 2024.

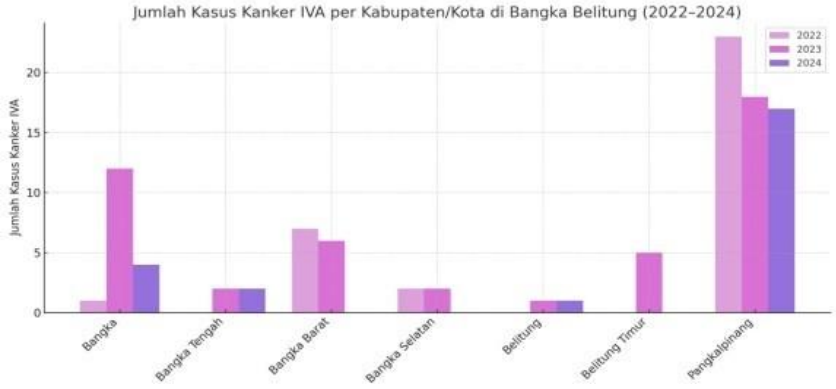


Graph 7. Total Cases of Diabetes Mellitus (2022–2024)

The increase in Diabetes Mellitus cases in almost all regions indicates the need to strengthen non-communicable disease prevention and control programs. The use of digital applications for early screening, recording, and case monitoring will be a key strategy in controlling this chronic disease trend in the future.

Analysis of Total IVA Cancer Cases (2022–2024)

The following graph presents the number of IVA Cancer cases recorded in each district/city in the Bangka Belitung Islands Province during the period from 2022 to 2024. Pangkalpinang is consistently the region with the highest number of cases each year, which indicates awareness of early detection or the possibility of a higher prevalence. Regions such as Bangka and West Bangka show a decline in 2024 after experiencing an increase in previous years. Meanwhile, regions such as Belitung and East Belitung recorded a low number of cases but need to be continuously monitored.

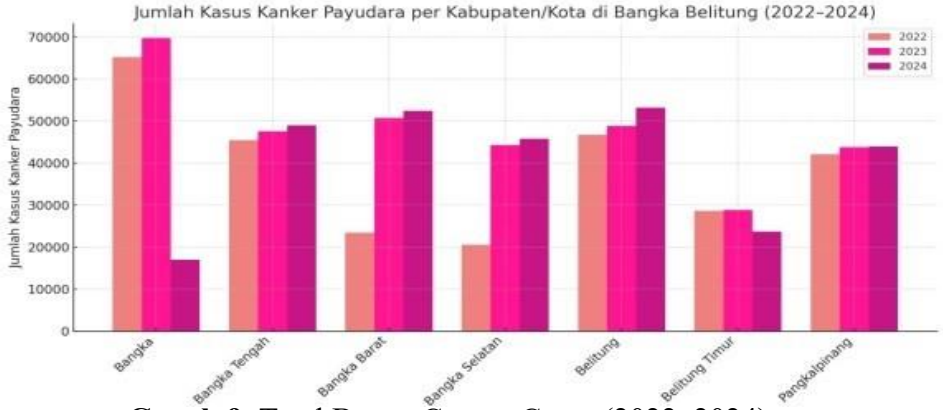


Graph 8. Total IVA Cancer Cases (2022–2024)

Early detection efforts through IVA screening must continue to be improved in all regions, especially in areas with low numbers that may reflect a lack of public access or awareness. The use of digital health applications is very supportive in monitoring the achievement and effectiveness of cervical cancer screening programs in real-time and integrated.

Analysis of Total Breast Cancer Cases (2022–2024)

The graph below shows the trend in the number of Breast Cancer cases recorded in each district/city in the Bangka Belitung Islands Province during the period from 2022 to 2024. Belitung has shown consistent improvement to become the region with the highest number of cases in 2024. This was followed by West Bangka and Central Bangka which also experienced a sharp increase in cases. Meanwhile, Bangka Regency experienced a significant decline in 2024 after recording high numbers in the previous two years.

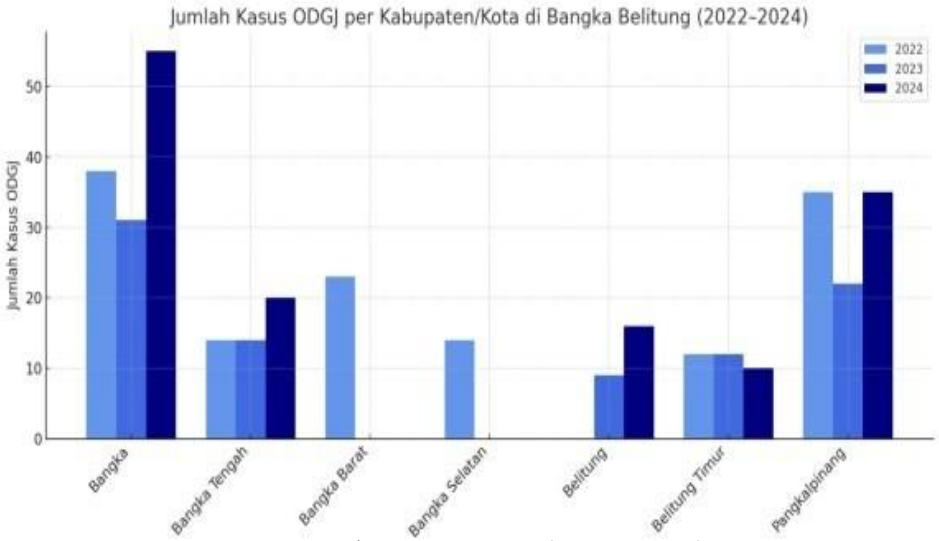


Graph 9. Total Breast Cancer Cases (2022–2024)

The increase in the number of cases in some regions indicates that awareness and early detection programs need to be continuously improved. Efforts to digitize app-based health recording and monitoring will go a long way in identifying trends, reaching more individuals for screening, and crafting accurate data-driven health policies.

Analysis of Total ODGJ Cases (2022–2024)

The following graph shows the number of cases of People with Mental Disorders (ODGJ) recorded in each district/city in the Bangka Belitung Islands Province during the period 2022 to 2024. Bangka Regency recorded the highest number of cases in 2024, experiencing a significant increase compared to previous years. Pangkalpinang also shows a fluctuating trend but will rise again in 2024. On the other hand, West Bangka and South Bangka recorded a drastic decrease and did not even report cases in 2023 and 2024. The Belitung region showed a significant increase from zero cases in 2022 to 16 cases in 2024.



Graph 10. Total ODGJ Cases (2022–2024)

ODGJ cases need to receive more attention in efforts to handle mental health comprehensively. It is necessary to strengthen the mental health service network and digital-based recording so that data can be updated accurately and quickly, in order to support targeted data-based decision-making. The data that I conveyed above is Health profile data that my team and I made manually in the excel program table, but with the application that I made, the data only needs to be input by the district/city data and information team so that I and the provincial team only need to validate the accuracy of the data.

Policy Choice Alternatives

Based on analysis and observation, here are some policy alternatives for website development by creating and developing a Health Office profile application:

Alternative 1: Optimization of Existing Systems

1. Improve technical performance such as loading speed and safety.
2. Train HR for content management independently.
1. Schedule regular updates of content.

Alternative 2: Interactive Service Feature Development
1. Create an online data input service application for health profile information.
2. Provides online consultation features with operators or medical personnel.

Alternative 3: Strengthening Digital Literacy and Socialization
1. Campaign to use the website to the public.
2. Creation of website usage guides in the form of videos, leaflets, and online tutorials.

Table 2
Alternative Selection Criteria

	Alternative Selection Criteria					
	Criterion 1	**Criterion 2**	**Criterion 3**	**Criterion 4**	**Criterion 5**	**Toral Score**
Alternative 1: Optimization of Existing Systems	2	5	3	7	3	20
Alternative **2:** Service Feature Development Interactive	8	7	9	8	9	41
Alternative **3:** Strengthening Digital Literacy and Socialization	5	6	4	6	3	24

and Our choice is the 2nd alternative, namely the Development of Interactive Service Features by creating an online data input service application for health profile information and Providing online consultation features with operators or medical personnel.

Conclusion

The creation of the Bangka Belitung Islands Provincial Health Office profile application is a strategic step to improve transparency, service efficiency, and access to public information. However, in order for the benefits to be optimal, the development of this application must be accompanied by system maintenance policies, human resource training, and socialization to the community. By strengthening the technical foundation and digital literacy of users, this application can be an effective communication tool between Public Health Center, Health/City and Provincial Health Offices as well as Steakholders, while supporting the overall digital transformation of the health sector.

Reference

Aini, N., & Nasution, M. I. P. (2025). Akurasi kualitas data informasi pada sistem manajemen. *Jurnal Rumpun Manajemen Dan Ekonomi*, *2*(1), 40–50.

Angela, J. B., & Irsyad, A. (2023). Implementasi Visualisasi Data Berbasis Web Pada Exploratory Data Analysis Profil Kesehatan Kota Samarinda. *Kreatif Teknologi Dan Sistem Informasi (KRETISI)*, *1*(1), 9–16.

Basri, H., Toyibah, D., Fakhri, M., Musahar, H. D., Wati, W., Idad, R. N., & Apriliah, W. (2020). Sistem Informasi Layanan Digital Puskesmas Berbasis Android. *Jurnal Teknologi Dan Open Source*, *3*(2), 215–229.

Choirunnissa, N. F., & Oktarina, N. (2025). PERAN DIGITALISASI DALAM MENINGKATKAN PELAYANAN ADMINISTRATIF KANTOR. *Bookchapter Administrasi Perkantoran*, *1*, 77–95.

Hidayat, H. N., Putri, H. R., & Yumna, K. K. (2022). Situasi Kesehatan Dalam Pembangunan Berkelanjutan di Indonesia Pada Masa Pandemi Covid-19: Kajian Literatur. *FKM Universitas Indonesia*.

Ningsih, C. S., Supriyati, E., & Listiyorini, T. (2025). Digitalisasi Pengelolaan Data Santri di Ponpes Al-Achsaniyyah Berbasis Website. *SemanTIK: Teknik Informasi*, *11*(1).

Suprapto, S., & Arda, D. (2021). Pemberdayaan masyarakat melalui penyuluhan perilaku hidup bersih dan sehat meningkatkan derajat kesehatan masyarakat. *Jurnal Pengabdian Kesehatan Komunitas (Journal of Community Health Service)*, *1*(2), 77–87.

Surya, N. T., Gita, A. P. A., & Kismanto, J. (2024). SOSIALISASI PELAKSANAAN SISTEM INFORMASI KESEHATAN BERBASIS ONLINE DI KELURAHAN MOJOSONGO KECAMATAN JEBRES. *Science and Technology: Jurnal Pengabdian Masyarakat*, *1*(1), 1–5.

Virgy, M. A., Kautsar, F., & Paruntu, C. (2020). Pentingnya Perbaikan Regulasi Tata Kelola Data dan Informasi Kesehatan untuk Mencapai Tujuan Pembangunan Berkelanjutan. *World Health*, *1*(2), 3.

Wanimbo, P., Aedah, N., & Sapioper, H. C. M. (2021). Implementasi Kebijakan Pengembangan Sumber Daya Manusia Pada Dinas Kesehatan Kabupaten Yahukimo. *J Kebijak Publik*, *3*(3), 114–126.