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Good Practices in Social Security

Good practice in operation since: 2017

DEFRADA (*Deteksi Potensi Fraud Dengan Analista Data Klaim*): The development of a fraud detection tool in hospital services

**Social Security Administering Body for the Health Sector
Indonesia**

Summary

Fraud incidence in healthcare is not easy to find. As a country that started its National Health Insurance program (Jaminan Kesehatan Nasional – JKN) in 2014, there are not many parties that provide fraud detection tools for the Indonesia-Case Based Group (INA-CBG) case-mix system. In addition, the law that establishes an investigation for potentially fraudulent incidents is still being drafted. On the other hand, there is a significant increase in the number of JKN participants and in the number of claims. By the end of 2017, the number of claims submissions was 80,641,271. The situation encouraged the Social Security Administering Body for the Health Sector (BPJS Kesehatan) to develop DEFRADA, a fraud detection tool for INA-CBG claims of referral health services.

This paper outlines the implementation of DEFRADA and its achievements in cost efficiency for the JKN. In 2017, DEFRADA contributed about 25 to 30 per cent of the total gains in cost efficiency. The implementation shows efficiency in data analysis offers room for improvement in the future.

The issue or challenge

What was the issue or challenge addressed by your good practice? Please provide a short description.

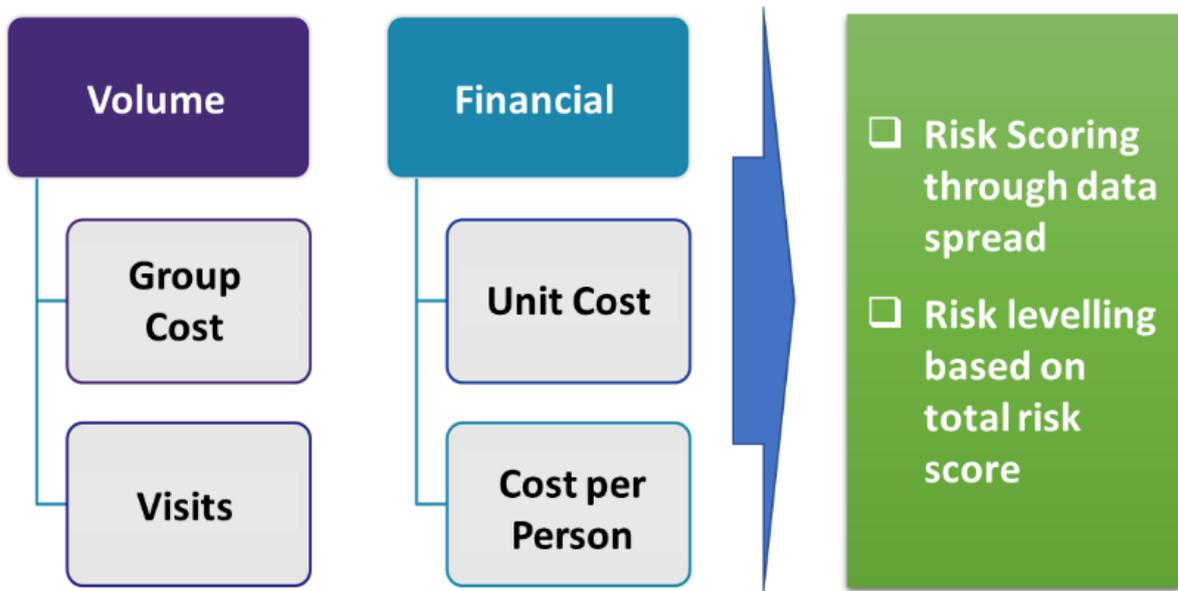
- Until the third year of implementation of the JKN program, the evaluation of potentially fraudulent incidents has not been carried out thoroughly against the 2,268 partner hospitals of BPJS Kesehatan. Given the variety of types and classes of hospitals, evaluating potentially fraudulent incidents is very difficult.
- At the same time, BPJS Kesehatan has changed its verification business process from manual to digital. This mechanism introduced claim audit to strengthen cost containment efforts. Claim audit requires detection tools to delve into anomalous data.
- The need for a health fraud detection tool is also aligned with the recommendation to BPJS Kesehatan of the Corruption Eradication Commission (*Komisi Pemberantasan Korupsi – KPK*) as stipulated in the letter number B-200/10-15/01/2016 *Submission of Report on Monitoring Results of National Health Insurance System* where KPK conveyed to the BPJS Kesehatan the need to “accelerate the development of fraud detection tools on services in health facilities”.

Addressing the challenge

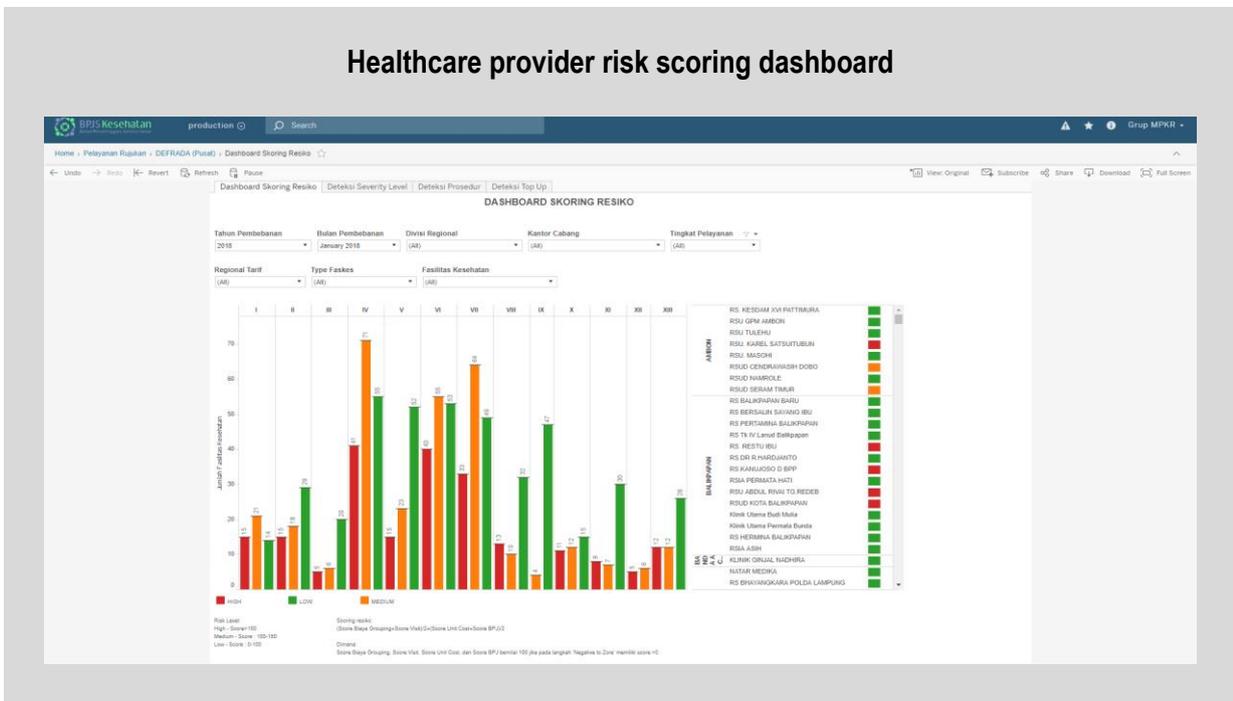
What were the main objectives of the plan or strategy to resolve the issue or challenge? List and briefly describe the main elements of the plan or strategy, focusing especially on their innovative feature(s) and expected or intended effects.

The main objectives of this tool are: to provide a detection tool for the INA-CBG claims in large healthcare providers. This tool has changed manual data mining into digital mining. DEFRADA has answered KPK’s recommendation and BPJS Kesehatan’s strategy for an anti-fraud program.

DEFRADA has two (2) features with specific functionalities: a risk scoring feature and a filtration of the INA-CBG grouping codes. The risk scoring feature is a monitoring dashboard that provides the risk scores of a healthcare provider. A risk score can be instantly seen without manual calculation. The following picture shows how a hospital's risk score is determined:



The second feature displays a red flag for an INA-CBG grouping code that is potentially inefficient or potentially fraudulent. This feature helps verification staff to identify claims which require deeper analysis.



DEFRADA was developed using Business Intelligence (BI) technology.

Targets to be achieved

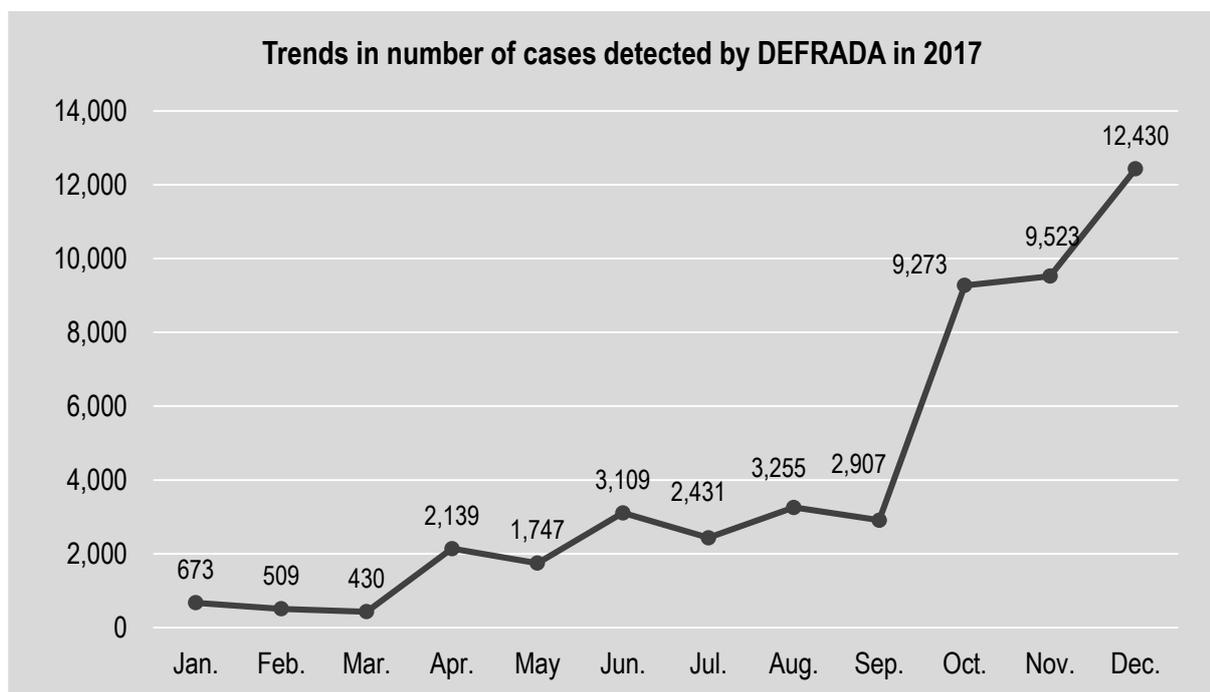
What were the quantitative and/or qualitative targets or key performance indicators that were set for the plan or strategy? Please describe briefly.

This initiative was set up to support the cost efficiency of the JKN healthcare in which the 2017 target to be achieved was 2.5 per cent of the total claims. This target was achieved in three phases of activities: prospectively, during, and retrospectively. DEFRADA is the main tool for retrospective cost containment analysis.

Evaluating the results

Has there been an evaluation of the good practice? Please provide data on the impact and outcomes of the good practice by comparing targets vs actual performance, before-and-after indicators, and/or other types of statistics or measurements.

Before DEFRADA was implemented there was no cost efficiency recorded from claims audit. In 2017, DEFRADA collected 79,727 cases which resulted in cost efficiencies of more than Indonesian rupiah (IDR) 48 billion.



In September 2017, BPJS Health held a special capacity building training for its staff in regional and branch offices to improve their ability and competency in using DEFRADA so they could detect more cases.



Lessons learned

Based on the organization's experience, name up to three factors which you consider as indispensable to replicate this good practice. Name up to three risks that arose/could arise in implementing this good practice. Please explain these factors and/or risks briefly.

- Service patterns in hospital will vary more with the addition of participants and the number of hospitals. It is important to determine data variability under different financing methods such as diagnostic related groups (DRG), fee for service, etc. If the data become too large, try to select one parameter that can be cross-referenced with many identities/data labels, for example, a DRG code, medical specialty, medical procedure, and many others.
- The phenomenon of fraud in health insurance is an iceberg, and support is required to minimize potential fraud. Coordination between government and other related institutions is required to reveal the fraud.
- Since data will grow in line with the addition of various health services, it is very important to prepare technology and infrastructure for large data so that potential fraud can be found more quickly. DEFRADA successfully improved cost efficiency based on data analysis.