

## INTISARI

**Latar belakang.** Efisiensi merupakan salah satu bagian dari pengukuran kinerja suatu organisasi yang merujuk pada pemanfaatan terbaik atas sumber daya dalam produksi. Rumah sakit disebut *cost efficiency* jika rumah sakit efisien secara *technical* dan juga *allocative*. Dengan diberlakukannya Jaminan Kesehatan Nasional (JKN), peningkatan efisiensi menjadi isu utama dalam menghadapi JKN yang menerapkan prinsip kendali biaya dan mutu serta perubahan pola pembayaran yang semula *fee for services* menjadi tarif INA CBG's. Rumah sakit jiwa akan mengalami permasalahan *inefficiency* jika sumber daya (*input*) rumah sakit berlebih dan tidak sebanding dengan *output* yang dihasilkan.

**Tujuan.** Mengukur tingkat efisiensi rumah sakit jiwa dengan menggunakan metode *data envelopment analysis* (DEA). Mengetahui peningkatan produktivitas rumah sakit selama pelaksanaan awal program JKN. Mengukur perbedaan rata-rata indikator efisiensi pelayanan rumah sakit (rawat inap) sebelum dan sesudah peningkatan efisiensi hasil pengukuran DEA serta sebelum sesudah penerapan JKN.

**Metode.** Jenis penelitian deskriptif kuantitatif menggunakan *two stage data envelopment analysis* (DEA). DEA untuk mengukur efisiensi dan uji *paired samples t test* untuk mengetahui apakah ada perbedaan rata-rata BOR, LOS, BTO, TOI dan skor *cost efficiency* sebelum dan sesudah peningkatan efisiensi serta penerapan JKN. Penelitian ini menggunakan data sekunder laporan keuangan, SDM dan rekam medis di 5 rumah sakit jiwa selama 5 tahun dari tahun 2010-2014.

**Hasil.** Pengukuran DEA model CRS orientasi *input* diperoleh skor efisiensi rata-rata per tahun adalah 0,896. Rata-rata skor efisiensi kelima RSJ di awal pelaksanaan JKN, tahun 2014 terjadi penurunan dibanding tahun sebelumnya. Dari 0,947 di tahun 2013 menjadi 0,866 di tahun 2014. Hanya RSJD Dr. RM. Soedjarwadi yang mampu mencapai dan mempertahankan *cost efficiency* di periode awal pelaksanaan JKN. Tidak ada perbedaan rata-rata BOR, LOS, BTO, TOI dan skor efisiensi antara tahun 2010 dan 2013 setelah terjadi peningkatan efisiensi berdasarkan pengukuran DEA. Tidak ada perbedaan rata-rata BOR, LOS, BTO dan skor efisiensi sebelum dan sesudah penerapan JKN dan ada perbedaan rata-rata TOI sebelum dan sesudah penerapan JKN.

**Kesimpulan.** Sebagian besar RSJ masih belum efisien. Penerapan JKN belum mampu meningkatkan efisiensi di tahun awal pelaksanaannya. Terjadi penurunan jumlah *output* rumah sakit di tahun awal penerapan JKN yang menyebabkan penurunan skor efisiensi.

**Kata kunci :** efisiensi, *technical efficiency*, *allocative efficiency*, *cost efficiency*, *two stage DEA*, DEA, regresi tobit

## ABSTRACT

**Background.** Efficiency is a part of organizational performance measurement refers to the best utilization of resources in production. A hospital is said to be cost efficient if achieves both technical and allocative efficiency. During a national health insurance implementation, efficiency improvement becomes an important issue as a result of the change of a payment method from free for service to fixed pricing mechanism of INA CBG's by containing cost and improving quality. Inefficiency occurs when a psychiatric hospital uses an excessive input resource to produce a given level output.

**The Objective.** To measure psychiatric hospital efficiency score using data envelopment analysis (DEA) method. To find out hospital productivity improvement during a transition period of national health insurance implementation To analyze the difference of mean between pair of hospital service efficiency indicator (inpatient) that widely used, before and after efficiency improvement measured by DEA and implementation of national health insurance.

**Method.** A descriptive quantitative study was conducted using two-stage data envelopment analysis (DEA). The first stage was to measure hospital efficiency. Second stage used paired samples t test to analyze different mean of BOR, LOS, BTO, TOI and cost efficiency score. This study used secondary data from financial report, human resources report, hospital patient visit report of 5 psychiatric hospitals in central java and DIY province, period 2010 until 2014.

**Result .** Efficiency measurement using DEA CRS input- oriented model obtained the mean of cost efficiency score was 0,896. Mean of efficiency score decreased during a transition period of national health insurance implementation from 0,947 in 2013 became 0,866 in 2014. Soedjarwadi hospital was the only one of a psychiatric hospital that achieved cost efficiency in 2014. Paired samples t test analysis showed that there was no difference of mean of BOR, LOS, BTO, TOI and score cost efficiency before and after efficiency improvement in 2013 from 2010 An also there was no difference of mean of BOR, LOS, BTO and score efficiency before and after implementation of national health insurance. The only one variable had difference of mean before and after implementation of national health insurance was TOI.

**Conclusion.** Most psychiatric hospital in this study are still inefficient. National health insurance has not been able to improve efficiency in the early implementation period. Decreasing of efficiency score happened because of the decreasing of hospital output. Efficiency measurement using DEA show that inefficiency occurs when excessive resources (input) are used to produce given level output or when input that used are not proportional and comparable with output.

**Keywords.** efficiency, technical efficiency, allocative efficiency, cost efficiency, two stage DEA, DEA, tobit regression