Analisis Biaya Efektifitas (Cost Effectiveness Analysis) Program Imunisasi Campak Dalam Upaya Pengendalian Penyakit Campak Di Kabupaten Bogor Tahun 2000

Simbolon, Olivia Esrana, author

Abstrak

Penyakit campak sangat menular terutama menyerang anak-anak yang tidak mempunyai kekebalan terhadap penyakit campak. Penyakit campak merupakan masalah kesehatan yang cukup serius baik di negara maju maupun negara berkembang, walaupun dapat dicegah dengan imunisasi namun KLB masih sering terjadi. Di Indonesia imunisasi campak dimulai tahun 1983 dan cakupan campak 80 % telah dicapai pada tahun 1990 dan dapat dipertahankan sampai sekarang. Namun cakupan tinggi belum terdistribusi merata sampai ke desa, sehingga masih terjadi KLB (Kejadian Luar Biasa) campak yang sering mengakibatkan kematian khususnya pada anak dengan gizi buruk. Cakupan tinggi menyebabkan terjadinya pergeseran umur penderita campak, bukan hanya pada balita tetapi mulai tinggi pada anak sekolah. Perubahan pola epidemi campak merubah strategi program. Serta mengacu kepada sidang WHA untuk menurunkan angka insidens campak sebesar 90% dan angka kematian campak sebesar 95%, dan sidang WHO 1996 yang menyatakan kemungkinan penyakit campak dapat dieradikasi karena pejamu hanya manusia. WHO membuat target global eradikasi campak pada tahun 2005 - 2010 dan menilai kinerja setiap negara terhadap upaya pengendalian campak. Berdasarkan kriteria WHO, maka Indonesia saat ini masuk dalam phase reduksi kasus dan pencegahan KLB campak. Namun strategi pencapaian diserahkan pada kemampuan keuangan masing-masing negara. Untuk mengantisipasi hal tersebut selain irunisasi rutin bayi, pada tahun 2000 telah diberikan imunisasi campak tambahan pada anak sekolah kelas 1 - 6 SD (catch up) di 2 propinsi (DKI Jakarta & Jawa Barat), serta crash program campak anak balita di desa rawan campak (resiko tinggi) di 13 propinsi di Indonesia. Sebelum mengadop kegiatan catch up ke propinsi lain serta mengingat keterbatasan keuangan negara, maka diperlukan evaluasi ekonomi analisis biaya hasil (cost effectiveness analysis) dari kegiatan campak tambahan tersebut. Sesuai dengan tujuan penelitian yaitu untuk mendapatkan gambaran tentang model kegiatan imunisasi campak yang paling "cost effective" dalam upaya pengendalian campak, mengetahui biaya satuan per kegiatan serta komponen biaya terbesar, juga untuk mengetahui kecenderungan penurunan kasus setelah imunisasi campak tambahan dilaksanakan.

Penelitian dilakukan di Kabupaten Bogor di 56 puskesmas yang terdiri dari 28 Puskesmas Desa UCI yang melaksanakan imunisasi rutin dan catch up (model-2) dan 28 Puskesmas Desa Non-UCI yang melaksanakan imunisasi rutin, catch up dan crash program (model-3) pada tahun 2000 dan sebagai pembanding adalah puskesmas yang soma (tahun 1999) yang hanya melaksanakan imunisasi rutin (model-1). Rancangan penelitian studi operasional (OR) evaluasi ekonomi analisis biaya efektif (CEA). Berdasarkan jenis data retrospektif dengan analisa deskriptif. Hasilnya adalah biaya satuan: rutin Rp.8.141, catch up Rp.3.275, crash program Rp. 3.552. Biaya satuan yang paling cost effective adalah pada kegiatan masal catch up yaitu 40% dari biaya satuan rutin. Komponen biaya yang terbesar dari 3 kegiatan dan model imunisasi adalah pada biaya operasional (96,50% - 99,96%). Sedang jenis biaya terbesar pada biaya operasional imunisasi rutin adalah biaya vaksin, gaji, alat suntik dan transport lapangan. Hanya pada daerah sulit, transport

lapangan lebih tinggi dart biaya alat suntik. Untuk kegiatan catch up dan crash program biaya operasional terbesar adalah biaya vaksin, alat suntik dan gaji. Terjadi penurunan kasus campak yang bermakna pada puskesmas yang sama, dengan membandingkan kegiatan imunisasi model-2 dan model-3 (tahun 2000) terhadap model-1 (1999). Penurunan kasus di puskesmas model-2 sebesar 49,5% dan di puskesmas model-3 sebesar 59,4%, sedangkan di Kabupaten Bogor penurunan kasus campak sebesar 65,3%. Pada tahun 2000 dikedua kelompok model penelitian dan di Kabupaten Bogor tidak terjadi KLB campak, dimana selama 9 tahun (1991-1999) selalu terjadi KLB campak.

Proporsi penurunan kasus terbesar terjadi pada kelompok umur balita yaitu di puskesmas model-2: umur < 1 tahun (66,2%), dan umur l - 4 tahun (68,3%). Di puskesmasmodel-3: umurcl tahun (50%) dan 1 - 4 tahun (75,1%). Soma dengan di,Kabupaten Bogor penurunan kasus campak terbesar pada kelompok umur balita yaitu < 1 tahun (72,5%) dan umur 1 - 4 tahun (76,2%). Berdasarkan hasil CE-ratio dart kedua model imunisasi campak tambahan, model yang paling cost effective adalah model-2 yaitu imunisasi rutin bayi dan catch up anak SD. Model-2 ini efektif untuk menurunkan kasus dan mencegah terjadinya KLB berarti dapat memutuskan transmisi virus dari anak sekolah kepada anak balita dirumah, namun demikian untuk menghilangkan desa rawan campak kegiatan crash program harus tetap dilakukan di desa-desa dengan cakupan rendah 2-3 tahun.
<hr><i>Measles is a serious infectious disease afflicted predominantly children under five who are susceptible to the disease. In most developing countries, measles is still one of the leading causes of children morbidity and mortality. Instead of significant achievement of EPI Program, outbreaks of measles are still frequently occurred. Measles vaccine was introduced and included into routine EPI in 1983 and UCI coverage (> 80 %) was achieved in 1990, and has been sustained until now. The problem that we are facing is the UCI coverage is not equally distributed which leads to the occurrence of measles outbreaks in pocket villages. The outbreaks claim many deaths among malnourished children. High coverage of measles vaccination has shifted the age of the cases to the right, where older children are affected and not only children under five. The changes of this disease pattern calls for revision of the EPI program strategy. The changes of the strategy is also revered to WHA resolution which has set the target of measles disease reduction by 90% and mortality reduction by 95%. Due to the natural history of disease, with potent vaccine measles could be eradicated like smallpox and polio. WHO has set the global target for measles eradication in 2005 - 2010 and plays a great roles in evaluating the performance of it's member countries towards measles eradication. WHO has conducted external evaluation and considered Indonesia is now at the stage of measles reduction and prevention of measles outbreaks occurrence. WHO member countries implemented different strategies in achieving their measles reduction target, it is very much depend on the available resources of each country. Indonesia, beside routine basic immunization program to infant has also in the year 2000 introduced additional measles vaccination to school children year 1 -- 6 elementary school in DKI Jakarta and West Java which is known as catch-up activities. Crash program for children under five was also introduced in measles high risk areas in 13 provinces. The introduction of catch-up campaign and crash program was based on epidemiological evidence. Cost effectiveness analysis need to be undertaken before deciding to adopt catch-up campaign and crash program approaches as national policy. The objectives of the cost effectiveness analysis study are to get better picture and better understanding of the most cost effective model of measles vaccination, unit cost for each activity, the biggest budget component, trend of measles reduction after additional measles vaccination been implemented.

The study was conducted in Bogor Regency involved 56 health centres, consists of 28 health centres have achieved village UCI coverage in 2000, which are implementing routine immunization and catch-up campaign (model-2) and 28 health centres who have not achieved village UCI coverage in 2000 which are implementing routine immunization, catch-up as well as crash program (model-3) control health centres were the same health centres who in 1999 implemented routine immunization (model-1) only. The study design was operational research (OR), economic evaluation cost effectiveness analysis (CEA). Using retrospective data with descriptive analysis. From data analysis it is evidence that the unit cost for different approaches are the following:

- Routine immunization Rp. 8141
- Catch-up campaign Rp. 3275
- Crash program Rp. 3552

The most cost effective is catch-up campaign which is only 40% of the cost of routine immunization. The biggest component of those three different approaches comes from the operational cost which is 96,5% - 99,96% of the total cost. In routine, the biggest cost of the operational cost is for vaccine, salaries, syringes and transportation. Only in remote different areas cost for transportation is bigger than cost for syringes. In catch-up campaign and crash program the biggest operational cost are for vaccines, syringes, salaries. It is evidence that there has been significance reduction of measles cases in model-2 and model-3 approaches (2000) as compare to model-1 (1999). Measles reduction in health centres for model-2 approach 49,5%, model-3 approach 59,4%, while for the whole Bogor Regency the measles reduction was 65,3%. It is also found that in 2000, measles outbreaks was not occurred in the study areas and in the Bogor Regency where in the last 9 years (1991-1999) measles outbreaks has always been occurred.

If we look at the age distribution the significant reduction was found in underfive group. Health centres model-2: < 1 year (66,2%), 1 - 4 years (68,3%). In health centres model-3: < 1 year (50%), I - 4 years (75,1%). Similar figure is also found in Bogor Regency where significant measles reduction was in underfive age group; < 1 year (72,5%), 1 - 4 years (76,2%). Finally, based on CE-Ratio calculation, model-2 was the most cost effective which include routine immunization and catch-up campaign for elementary school children. In conclusion model-2 is effective to reduce cases and to prevent measles outbreaks and is capable to cut the viral transmission from school children to children under five in their respective households. Hence, to reduce the number of high risk villages, crash program should be implemented continuously in low coverage villages at least for</i>