

COST-BENEFIT ANALYSIS OF CONGENITAL HYPOTHYROIDISM NEONATAL
SCREENING: A CASE OF CHULALONGKORN MEMMORIAL
HOSPITAL, THAILAND



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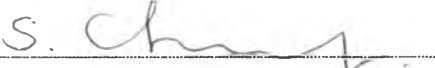
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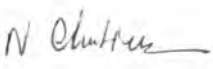
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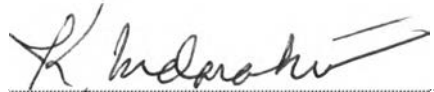


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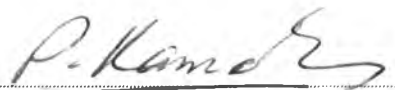
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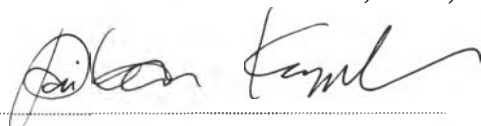
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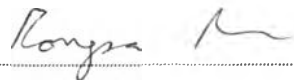
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In many industrialized countries, neonatal screening program for congenital hypothyroidism was introduced since 1970s and now becomes a routine. Generally, neonatal screening programs for Congenital Hypothyroidism are established on a purely medical basis for disability prevention with some notions of cost-benefit advantages.

This empirical study is based on the screening program at Chulalongkorn Hospital. Its objective is to provide an evidence of cost-benefit analysis of the TSH screening program for congenital hypothyroidism in newborn. Both costs and benefits are considered from three perspectives: provider, patient and society. The benefit-cost ratio is assessed at two levels: hospital-based and national policy. The screening program at Chulalongkorn Hospital shows that the incidence rate of Congenital Hypothyroidism is 1 per 2,907 live births, the recall rate is 0.24% according to acceptable criteria for TSH cut off level while the responsive-recall rate and the compliance rate are 71.77% and 100%, respectively. The average costs per case prevented for provider and for patient are 51,169 and 91,833 Baht. The estimated total present value of benefits from the screening program are 993,941.01 Baht per case prevented. The benefit-cost ratio of the base case (at Chulalongkorn Hospital) is 2.19. The analysis at national policy level has the benefit-cost ratio of 2.70. The benefit-cost ratio is sensitive to three major factors: incidence rate, responsive recall rate and patient compliance rate. When the incidence rate, the responsive-recall rate and the compliance rate are adjusted, the benefit-cost ratio remains greater than one.

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