∄ 	1율 추정 및 신고 관련특성	문석 Estimation of Reporting Rates of Notifiah	수 문	Ę	목	<b>→1</b> 1			
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## 1. Purpose

This study was undertaken in order to estimate the reporting rates of notifiable acute communicable diseases and analyze the characteristics related to reporting them.

## 2. Method

Two data sets of notifiable acute communicable diseases were used; 324,865 medical insurance claims data and 10,370 public health centers' report data in 1994. To estimate the reporting rate, 2,433 random sample cases were selected from 37,473 medical insurance claims data that were not reported to public health centers in Seoul, Kyonngi areas. And the author visited medical institutions to confirm that the cases were in fact true cases by reviewing 2,337 medical records and calculated confirmation rate of notifiable diseases. Finally, the confirmation rate was applied to the whole medical claims data through the method developed in this study. To analyze the characteristics related to reporting the disease occurrence, univariate and multiple logistic regression analyses were applied to the variables related to disease and medical institution characteristics.

## 3. Result

Major findings obtained from this study are as follows:

- i) The estimated reporting rate of notifiable acute communicable diseases in Korea, 1994 was 27.0% (95% CI:25.6%, 28.5%) as a whole, and 71.0% (95% CI:67.2%, 75.3%) in class I communicable diseases such as cholera, plague, epidemic typhus, typhoid fever, paratyphoid fever, diphtheria, bacillary dysentery, yellow fever, and 20.0% (95% CI:18.9%, 21.3%) in class II communicable disease including poliomyelitis, pertusis, Japanese B encephalitis, rabies, malaria, murine typhus, scarlet fever, relapsing fever, amebic dysentery, meningococcal meningitis, epidemic hemorrhagic fever, tetanus, Tsutsugamushi disease, and leptospirosis.
- ii) In univariate analysis, class II communicable diseases and the diseases vaccinated routinely, and the diseases diagnosed more subjectively showed significantly lower reporting rates and diseases caused by viral agents revealed significantly higher reporting rate than those caused by bacterial/parasitic agents. As for medical institution characteristics, clinics and tertiary hospital showed significantly lower reporting rates and the medical institutions owned by private sectors revealed significantly lower reporting rates than those owned by public sectors.
- iii) Important disease characteristics significantly lowering reporting rate by multivariate analysis were class II notifiable communicable diseases, and diseases vaccinated routinely. An important characteristic among variables related to medical institution characteristics was level of medical institution. University hospitals showed lower reporting rate than the others.
- iv) The major reasons of failure to report the disease occurrence were uncertainty of diagnosis, neglect of reporting by physicians and no knowledge of the cases being notifiable ones in the order of their frequencies.

## 4. Discussion

These study results suggest that a multifaceted approach that includes continued physician education on their social and legal responsibility to report the communicable diseases and reorientation of reporting system such as reporting process is necessary to improve reporting rate of communicable diseases in Korea.