Title: H-CRISIS and IT Competences of Japanese Public Health Center Directors

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Introduction:
I’d like to present not only H-CRISIS and the IT competencies of Japanese public health center directors but also what H-CRISIS of Japan is. H-CRISIS stands for “Health Crisis and Risk Information Supporting Internet System.” The H-CRISIS is the system designed for the purpose of exchanging information on the Web. The Ministry of Health, Labour and Welfare is the agency that set up the system, and the National Institute of Public Health administers it.

Purpose:
The amount of local information transmissions that login users must input themselves has not been so much. What sort of personnel development and in-service training should we provide in order to enable the information posting on a secure website?
Competencies, that is, practical abilities, based on basic skills, such as IT competencies, are competencies that should be obtained by in-service training by local governments, i.e., prefectures and municipalities. We decided to undergo analytical research which compares associations between frequency of H-CRISIS use and the IT competencies of public health center directors, who represent login users, and we analyzed by prefecture.

Methods:
The system’s access log analysis function was used to determine the frequency of H-CRISIS use by public health center directors. The average numbers of logins between October 1, 2006 and the end of February 2007 were used as the target data. The IT competencies of the public health center directors were surveyed by means of a mailed self-report questionnaire.
The questionnaire asked about the number of years of experience of PC use, touch typing ability, ability to create documents, and willingness in terms of whether they wanted to obtain as much information as possible and as quickly as possible.
Data sets were prepared according to prefecture with frequency of H-CRISIS use as the dependent variable, or target variable, and the IT competencies of the public health center directors as the dependent variables, or explanatory variables, and they were compared with ArcView 9.1 software. The quantitative analysis was performed by multiple regression analysis.

Results:
The patterns of distribution of PC use frequencies resembled the distribution patterns of
the mean login numbers. The mean numbers of logins tended to increase as the proportions of persons in the local governments’ who were high frequency PC users increased. The proportion who replied “yes” to the question about touch typing was always under 20%.

The distribution pattern of those capable of touch typing differed from the pattern of mean numbers of logins.

The distribution pattern of those who replied “yes” to the question about the ability to prepare documents by using word processor software was similar to the pattern of login frequencies.

The distribution pattern of those who replied “I am almost always able to consult someone and solve the problem right away when I encounter any trouble, such as ‘software doesn’t load’, ‘freezes’, etc., while using the PC” was similar to the distribution pattern of mean number of logins.

No significant results were found in any of the regression analyses of the independent variables and dependent variables.

Discussions and Conclusions:

I’ve found no significant results by the quantitative analysis, but there was a tendency for higher proportions of persons at institutions who were able to prepare documents and who used IT actively on a daily basis to increase as the number of persons who frequently used H-CRISIS increased. It seems that if in-service training was provided in regard to the “institution ID management” that has been set for each person in the user institution, and the training was conducted so that they were able to deal with trouble at each institution, there might be an improvement in the utilization situation in user institutions as a whole.