Objective:
Discussing the mechanisms to convert internal improvement indicators to external accountability indicators.

Methods:
To understand the trend over time in indicator value changes, 321 acute care indicators of Taiwan Quality Indicator Project (TQIP), which has been executed in Taiwan for 6 years and counting since the 4th quarter in 1999, and 94 psychiatric care indicators executed for 4 years were used in this study for linear regression analysis. Magnitude of change (the indicator for if significant changes had occurred, i.e. p value), the generality of the indicator (the number of reports, i.e. the maximal n value) and potential for improvement (variance of the indicator, i.e. C.V. value) were used to screen the applicable indicators. Subsequently conversion was conducted according to the effectiveness, efficiency, appropriateness and safety considerations (Fig.1). The selected indicators were evaluated by a focus group comprising 6 experienced hospital administrators in TQIP indicator application and 7 hospital administrators who belonged to hospitals not participating in TQIP. Their comments and reflections over the conversion of internal improvement indicators to external accountability indicators were collected.

Results:
The analysis identified 91 acute care indicators and 20 psychiatric care indicators which showed significant changes. The further screening identified indicators such as Device-associated infections, Antibiotic prophylaxis use, Re-admission, Management of labor, Restraints, Seclusion (Table.1) suitable to be converted into external accountability indicators. All the hospital administrators agreed on the protocol of converting internal improvement indicators to external accountability indicators described above, with the emphasis on assurance in the data accuracy, strengthening the data readability and the addition of patients’ self assessment/measurement besides other clinical indicators.

Conclusions:
Healthcare quality indicator is a concept widely accepted internationally. The indicator can be used in internal affairs such as quality control of the hospital, as well as in external affairs such as health insurance compensation and information release. Converting internal improvement indicators selected from the hospital database to external accountability indicators not only demonstrates effective resource exploitation, but also provides an incentive for the application of the indicator system. The screening conditions should be accordingly adjusted to fit the purpose of the desired external indicators. More importantly, when the task of indicator system application shifts from spontaneous improvement to external enforcements, it is critical to avoid the data distortion caused by the rewards or penalties of the external system.