Supplemental Figure Legend

Figure. 1A Establishment of independent database of ICU patients

Figure. 1B Number of cases collected by independent database of ICU patients in the hospital

Figure. 2A Data source of critical illness database

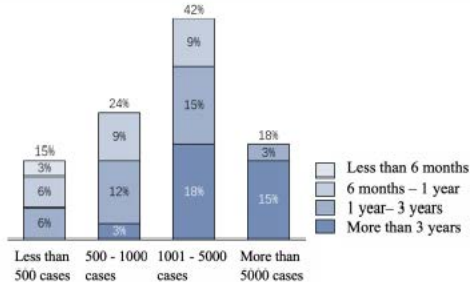Figure. 2B Data entry method of critical illness database

Figure. 3 The practical use of the critical illness database

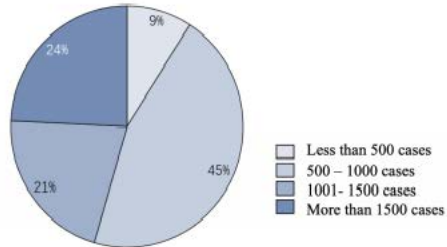Figure. 4A The necessity of building independent critical illness database

Figure. 4B The usage of building critical illness database

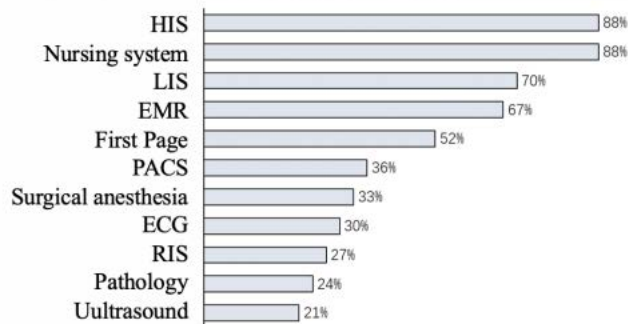Figure. 4C The shortcoming of critical illness database

A. How long has the independent ICU database established in your department or hospital? How many patients were included?

B. Currently, how many patients' data is expected to be collected in the critical illness database established by your hospital or department each year?

A.
- Less than 6 months
- 6 months – 1 year
- 1 year– 3 years
- More than 3 years

Less than 500 cases: 15% (3%, 6%, 6%)
500 - 1000 cases: 24% (9%, 12%, 3%)
1001 - 5000 cases: 42% (9%, 15%, 18%)
More than 5000 cases: 18% (3%, 15%)

B.
- Less than 500 cases: 9%
- 500 – 1000 cases: 45%
- 1001- 1500 cases: 21%
- More than 1500 cases: 24%

A. Does the critical care database established by your hospital or department have access to data from the following data sources?

Data source	Percentage
HIS	88%
Nursing system	88%
LIS	70%
EMR	67%
First Page	52%
PACS	36%
Surgical anesthesia	33%
ECG	30%
RIS	27%
Pathology	24%
Uultrasound	21%

B. By which way does the critical care in your hospital or department collecting data?

Method	Percentage
Collecting data manually	64%
Intelligent data collection module	61%
Data synchronization module	55%
Regular data backup	36%
Data sedimentation by intelligent application	18%
Unknown	6%
Others	3%
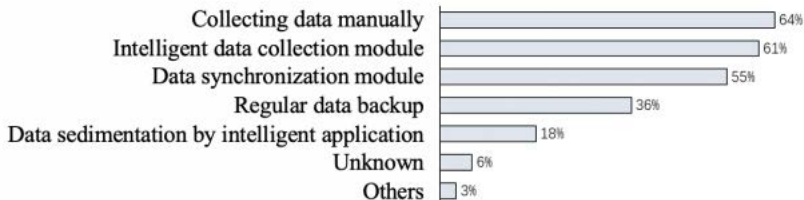
With the assistance of critical illness database, what type of work you can do?
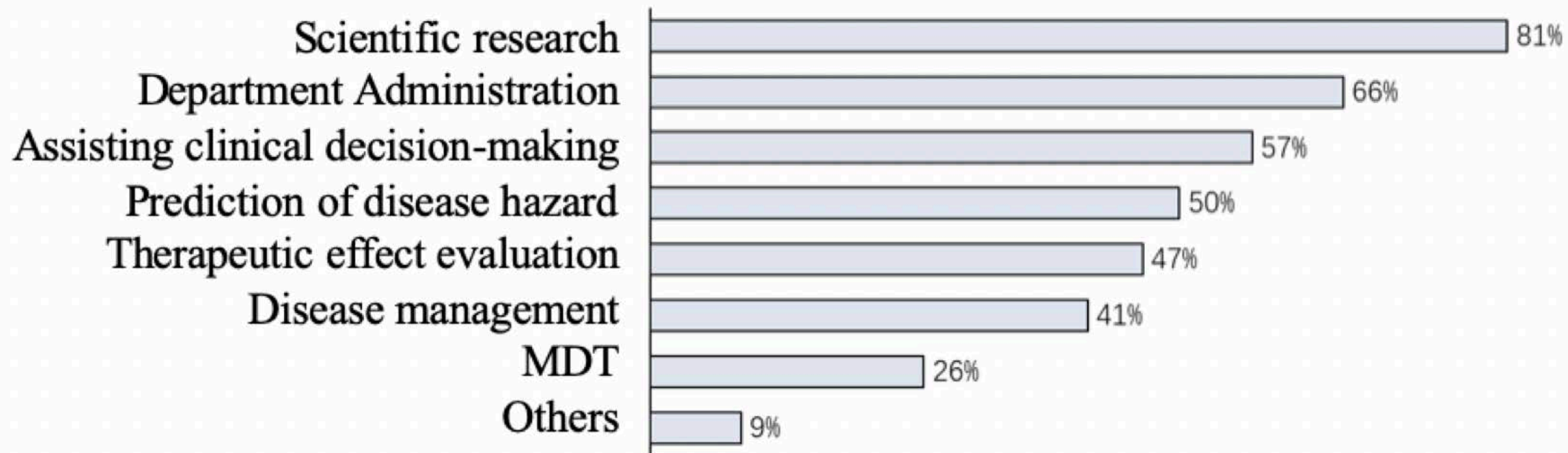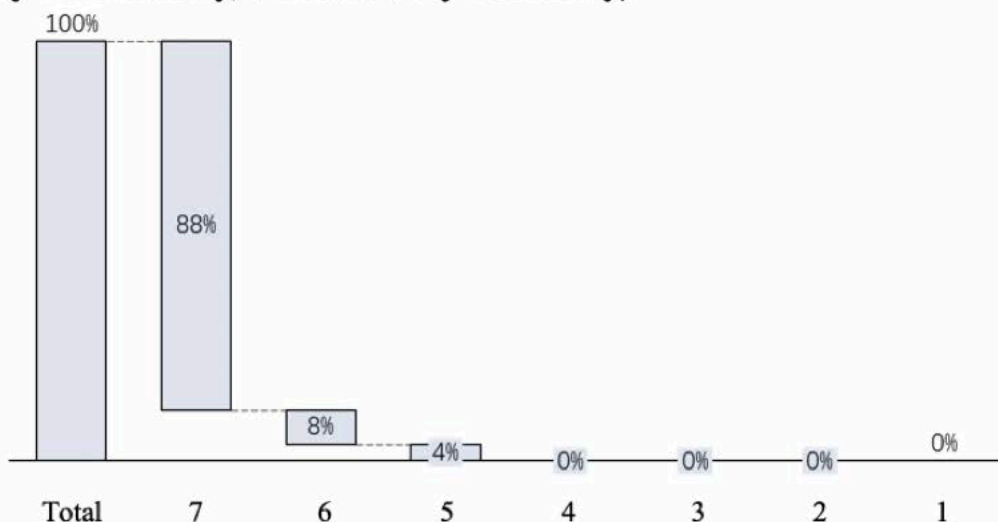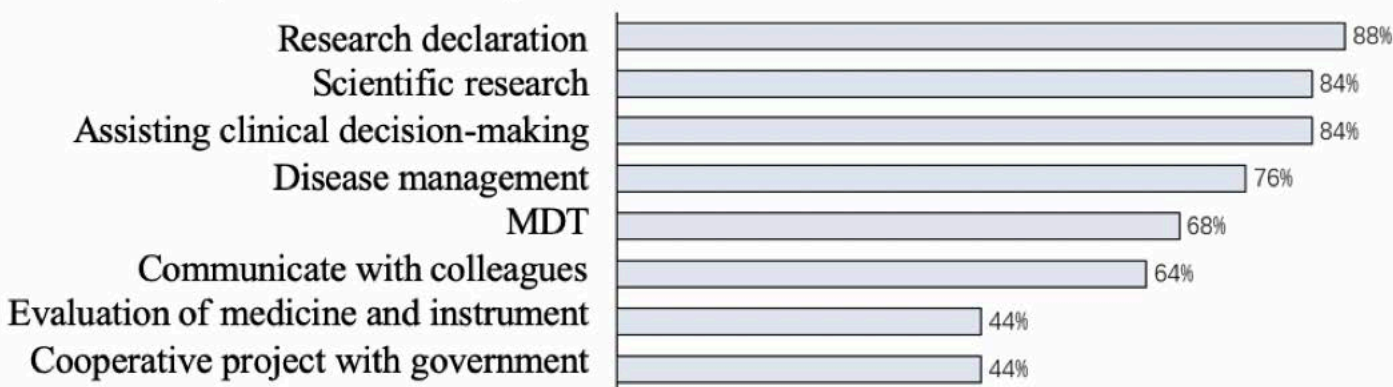

Fig.3 The practical use of the critical illness database

A. Please rate the necessity of establishing an independent ICU database from the perspective of discipline development and department construction (1 means completely unnecessary, 7 means very necessary)

Total	7	6	5	4	3	2	1
100%	88%	8%	4%	0%	0%	0%	0%

B. What do you want to accomplish with the critical illness database?

Research declaration	88%
Scientific research	84%
Assisting clinical decision-making	84%
Disease management	76%
MDT	68%
Communicate with colleagues	64%
Evaluation of medicine and instrument	44%
Cooperative project with government	44%

C. In what scenarios do you think the existing critical illness database cannot meet your department management needs?

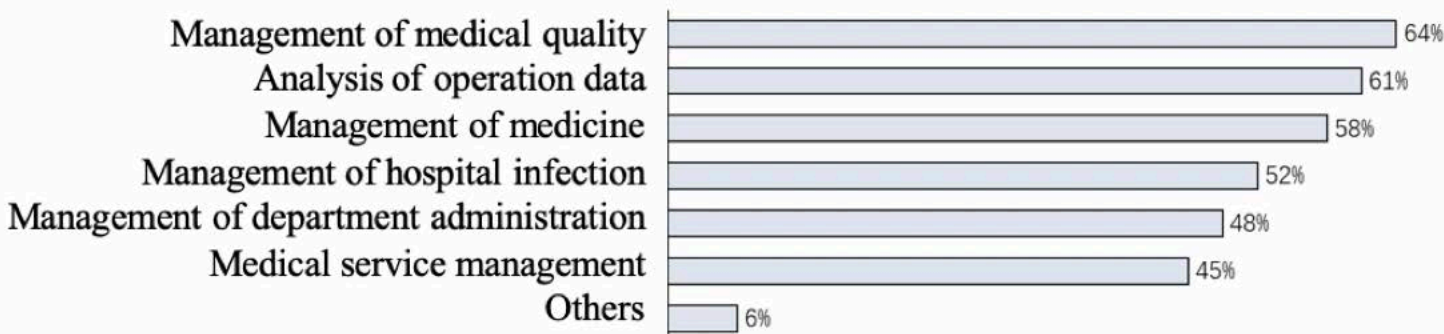|	
Management of medical quality	64%
Analysis of operation data	61%
Management of medicine	58%
Management of hospital infection	52%
Management of department administration	48%
Medical service management	45%
Others	6%

Fig. 4A The necessity of building independent critical illness database
Fig. 4B The usage of building critical illness database
Fig. 4C The shortcomings of critical illness database