

出國報告（出國類別：開會類）

參加美國醫療資訊管理協會 2023 年會議

（裝  
釘  
線）

服務機關：衛生福利部中央健康保險署

姓名職稱：副署長李丞華

派赴國家：美國芝加哥

出國期間：112. 4. 15 - 112. 4. 23

報告日期：112. 6. 14

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## 壹、摘要：

2023 年 HIMSS 年會與展覽會於 4 月 17 日至 4 月 21 日在美國芝加哥舉行，內容以醫療資訊暨管理為核心，全球共有超過 30,000 名醫療資訊科技專家顧問、業者/供應商、醫護人員、政府部門等相關人員參與，以及超過 1,000 個醫療資訊科技展覽攤位。會議演講主題涵蓋電子病歷、網路安全以及公共衛生等方面，可了解國外最新醫療資訊產業之發展現況與趨勢，有助於我國健康照護相關產業之推動。

年會中受邀主題演講「台灣應用資訊系統強化醫療體系(The Use of IT for Health System Strengthening in Taiwan)」，分享我國醫療制度、健保制度、醫療申報、電腦審查及資料庫管理與學術應用。

## 貳、目的

參加 HIMSS 2023 年會，分享台灣經驗並了解世界醫療資訊科技的新發展現況及未來趨勢，以作為我國推動健康照護產業政策之思考。

## 參、過程

### 一、HIMSS 2023

HIMSS 是健康醫療資訊管理領域中最具指標及領導地位的國際性組織，在全球擁有超過 50,000 的個人會員，600 家企業會員以及 300 家以上非營利性合作組織。HIMSS 除了針對健康醫療之資訊管理制訂相關標準外，每年亦透過舉辦會議及展示會的方式，呈現國際間醫療資訊管理發展現況以及未來醫療資訊產業發展重點與趨勢。

HIMSS 年會自 1962 年起舉行至今已逾 50 年，第 1 次會議在美國巴爾的摩舉行，第 2 次會議在芝加哥舉行。2023 年的 HIMSS 年度會議及展示會於 2023 年 4 月 17 日至 21 日在美國芝加哥舉行，全球共有超過 30,000 名醫療資訊科技專家顧問、業者/供應商、醫護人員、政府部門等相關人員參與，議程包括專題演講、圓桌論壇及展覽等，共同討論醫療資訊科技的未來趨勢與前景，以及可能面臨的挑戰。

### 二、台灣參與及報告

我國衛生福利部資訊處龐處長與國民健康署賈淑麗副署長分別率員參

加。中央健康保險署李丞華副署長於 4 月 18 日 12:30-13:00 演講「台灣應用資訊系統強化醫療體系(The Use of IT for Health System Strengthening in Taiwan)(報告投影片如附件)。會中對我國醫療制度、健保制度、醫療申報、電腦審查、及資料庫管理與學術應用詳加介紹討論。



三、大會排程及李丞華副署長演講排程：

## OVERVIEW/SCHEDULE

All activities are at McCormick Place (North, South, West or East Building/Lakeside Center), unless otherwise noted. All times are Central Time (CT).

*Hyatt = Hyatt Regency McCormick Place*

*Marriott = Marriott Marquis Chicago*

GENERAL INFO

### Executive Summit\*

**Monday, April 17 | 7:30 am – 5:30 pm**

Marriott | Level 4 | Grand Horizon Ballroom

### Preconference Forums\*

**Monday, April 17 | 8:00 am – 4:30 pm**

See pages 28-31 for details

### Opening Reception

**Monday, April 17 | 5:00 pm – 7:00 pm**

West Building | Level 3 | Skyline Ballroom/W375

### Opening Keynote

**Tuesday, April 18 | 8:30 am – 10:00 am**

West Building | Level 3 | Skyline Ballroom/W375

### Exhibition

**Tuesday, April 18 | 10:00 am – 6:00 pm**

**Wednesday, April 19 | 9:30 am – 6:00 pm**

**Thursday, April 20 | 9:30 am – 4:00 pm**

North Building | Hall B

South Building | Hall A

### Education

**Tuesday, April 18 | 10:30 am – 5:15 pm**

**Wednesday, April 19 | 10:00 am – 5:00 pm**

**Thursday, April 20 | 10:00 am – 5:00 pm**

**Friday, April 21 | 10:30 am – 1:00 pm**

See pages 44-104 for details

\* Separate registration required    ^ By invitation only

#HIMSS23

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# EDUCATION SESSIONS

Held at McCormick Place  
All times are Central Time (CT).

## TUESDAY, APRIL 18

8:30 am – 10:00 am

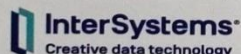
- 1 Opening Keynote**  
**Responsible AI: Prioritizing Patient Safety, Privacy, and Ethical Considerations**  
W375 | Blackman, Firth-Butterfield, Lee, Moore, Ross

10:30 am – 11:30 am

- 2 Implementing AI in Radiology: From Simple Algorithms to Platform Solutions**  
S401 | Linstad, Severinsen, Silsand

10:30 am – 11:30 am

- 3 Advancing Care Delivery with Device Data and Analytics**  
S403 | Hess, Mitchko, Reed, Woodlock

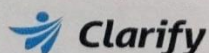


10:30 am – 11:30 am

- 4 Excellence in Public Health: Parkland Health, Dallas County, Parkland Center for Clinical Innovation**  
S404 | Moran, Longo, Huang

10:30 am – 11:30 am

- 5 Unlocking Value From Analytics—Do You Have The Right Fuel?**  
S402 | Collins, Drouin, Saeed, Vigil



### MCCORMICK PLACE LEGEND

- S100-S106 = South Building | Level 1
- S400-S406 = South Building | Level 4
- S501-S505 = South Building | Level 5
- Skyline Ballroom/W375 = West Building | Level 3 (Keynote Sessions)

12:00 pm – 12:30 pm

**20a The Journey to Triple Achievement of HIMSS Maturity Models [INFRAM, DIAM, EMRAM]**

S401 | Kang

12:30 pm – 1:00 pm

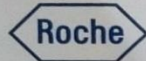
**20b The Use of IT for Health System Strengthening in Taiwan**

S401 | Lee

12:00 pm – 1:00 pm

**21 Accelerating the Digital Transformation of Health Systems with Digital Infrastructure**

S403 | Kuruvilla, Neville, Paladugu, Schwarzingner



12:00 pm – 1:00 pm

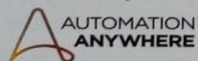
**22 Delivering Digital Solutions in Healthcare: A Design Thinking Approach**

S404 | Letourneau

12:00 pm – 1:00 pm

**23 Three Proven Strategies to Scale and Excel in a Time of Uncertainty**

S402 | Barrett, Casanova, Chow, Driscoll



12:00 pm – 1:00 pm

**24 Engendering Care Continuity Through Proactive Data Sharing and Enhanced Cybersecurity**

S406B | Chua

12:00 pm – 1:00 pm

**25 Launching a Multi-Site ED Virtual Visit Track: Processes, Challenges, Outcomes**

S501 | Moyer, Ribeira, Westphal

12:00 pm – 1:00 pm

**26 How Provider-Payer Collaboration Maximizes Value-Based Performance Reporting**

S406A | Singh, Younkin



#### 肆、心得及建議

我國目前正面臨人口老化及少子化的衝擊，在提高醫療照護品質須兼顧效率與安全，是各級政府急需面對的議題。我國已推行全民健康保險制度多年，擁有完整的全民健保資料庫，此外另有癌症資料庫及人體生物資料庫等，可建構較完整健康數據，再借重資訊技術實力，並以推廣遠距醫療、電子病歷及影像傳送經驗為根基，定能創造出因地制宜的智慧醫療產業發展模式，提升醫療產業健全發展。



# The Use of IT for Health System Strengthening in Taiwan

Cheng-hua Lee M.D., Dr.P.H.  
Deputy Director General  
National Health Insurance Administration, Taiwan

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## Outline

- National Health Insurance in Taiwan
- NHI Information System and Database
- Database Application inside the NHIA
- Academic/Business Application

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## NHI in Taiwan

- **Mandatory enrollment for all citizens.**
- **Employment-based group insurance.**
- **Payroll-based premium plus supplementary premium.**
- **Single payer system run by NHIA.**
- **All hospitals and most of the clinics contract with NHI.**

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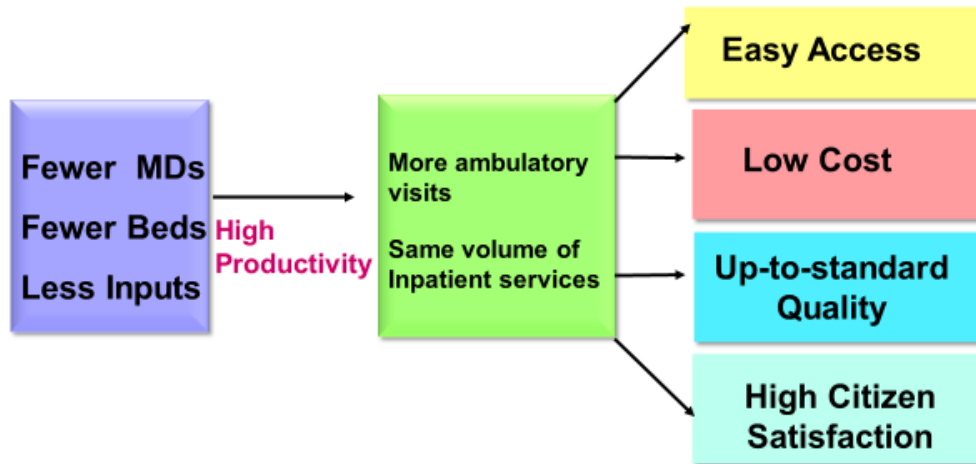
## NHI in Taiwan

- **Comprehensive benefit package.**
- **Copayment required at the point of care.**
- **Fee-for-service payment under a global budget.**
- **All medical claims are submitted electronically.**
- **Professional review for medical claims.**

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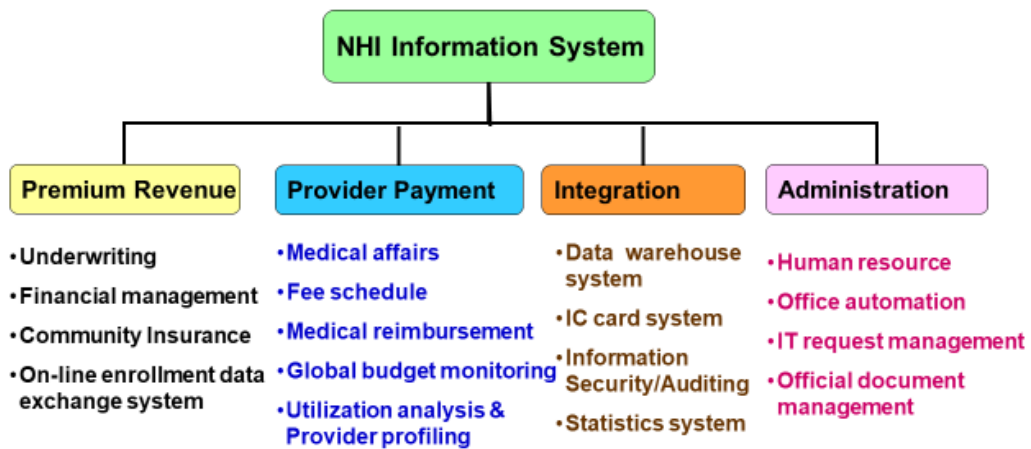
# NHI in Taiwan: Comparison with OECD Countries



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# IT Systems of NHI



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## Automated Claim Submission

- Single-payer payment system
- Unified medical claim form
- Standard coding for medical claims
- Explicit time-table for electronic claim submission
- Early payment incentives for electronic claims submission
- Incentives for periodical upgrading of hospital/clinic information technology

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## NHI Data Profile

- ◆ The Number of Group Insurance Applicants: 767,000
- ◆ The Number of beneficiaries: 23.3 million
  - the rate of transactions per month: 8%-10%
- ◆ The Number of Claims for Outpatient Visits per Month: 32 million
  - the number of medical orders per month: more than 126 million
- ◆ The Number of Claims for Inpatient Stays per Month: 285,000
  - the number of medical orders per month: 18.5 million
- ◆ The Number of Pharmacy Claims per Month: 5 million
  - the number of prescriptions per month: more than 16 million



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## Database Application inside the NHIA

### ◆ Claim Processing:

- Computerized adjudication rules;
- Sampling for professional peer review.

### ◆ Provider Profile Analysis:

- Static analysis: Comparison with peer group;
- Dynamic analysis: Comparison with claims of last year or last quarter;
- Outlier pick-out for deduction or fraud investigation.

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## Database Application inside the NHIA

### ◆ Public Disclosure of Quality/ Utilization Indicators:

- 300 indicators feedback to individual providers;
- 90 indicators for public disclosure on websites;
- quality monitoring indicators under global budget negotiation;
- Data release for public relations with mass media.

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## Database Application inside the NHIA

### ◆ Empirical Data for Policy Analysis:

- Provision of empirical data for debatable health issues;
- Evaluation of pilot/demonstration projects;
- Linking various data for policy analysis, such as linking taxation files for analyzing supplementary premium; etc.

### ◆ Data Warehouse for Intramural Research:

- On-job training programs;
- Staffs pursuing master/PhD degrees;
- Annual awards for in-house empirical research;
- Staffs' academic research papers.

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## NHIRD Data Encryption

### ◆ Data files are de-identified by scrambling all the ID

- Patient ID
- Physician ID
- Hospital ID

### ◆ Random key for different users

### ◆ Static key for the same principal investigators

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# Research Output of NHIRD

- ◆ **No. of research dataset applications : 2,181**
- ◆ **Extensive research outcomes : 1600+**
  - **Academic journal papers (PubMed): 1300+**
  - **Research project reports : 145**
  - **Master/ Ph.D . Theses : 138**

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