

健康資料加值分析智庫中心

現今的「資料」(Data)正是新興的科技化且系統化結合體，健康照護加值產業目標對準於能統合各種疾病的危險因子、臨床表現、關聯性和最佳檢查方法、治療及照護模式〔包括藥物、器材及手術〕，作為臨床決策之參考。於此，迫切需要橫跨健康相關知能領域人才之培育，以及能夠掌握雲端健康資訊(Big Data)資料的管理分析人才。跨領域實作管理分析人才不僅要懂得關聯式資料，更要了解如何分析非結構的資料，所謂的非關聯式資料，指的是在網路上的瀏覽行為、上傳的評論，以及社群網站所顯示的社交關係等資料。在產學合作應用階段，各種智慧加值應用模式將朝增進全民福祉的幾項領域發展，包含但不限於：完善照護模式、健康與疾病知識萃取、以病人為中心並提供衛教知識的社群平台。

「計量統計諮詢組」

旨在結合本校相關人力、設備及資源，為產、官、學界提供跨領域合作之機會以及研究諮詢服務，透過實際的研究資料處理與統計分析，培養中心師生之資料處理與統計分析能力，除了提供本系師生教學與論研究之協助外，也規劃提供對外的研究諮詢工作，包括研究設計、資料處理、統計分析、與論文撰寫等諮詢服務，以達到實務與理論結合及學以致用的目的，進而提升本系之研究水準及學生之競爭力。此外，計量統計諮詢組也結合教育研究與研發，促成本校計量分析技術之創新研發與持續成長，營造與相關產官學機構合作共構之契機。過往舉辦「產業義診」已逐步累積許多成功案例，例如本系師生於101年8月接受台北市松山區健康服務中心委託，管理與分析民眾篩檢與疾病預防之健康風險資料，進而協助流感疫苗與糖尿病健康促進企劃方案之形成，推動該行政區智慧健康照護服務發展。

「健康資料研發組」

旨在結合本系師生應用與結合全國性衛生與健康照護資料(包括全民健康保險資料、H45台灣經驗實證調查資料庫與資料分析、華人家庭動態資料庫等資料庫)進行教學與研究。透過定期討論與計量分析模式實務研發、規劃本系師生針對此等大型資料庫未來的研究方向。相關資料庫一方面協助與指導學生進行模擬與資料庫實務分析實習之用，同時也可規劃教師與相關產、官、學界合作從事健康照護相關研究，以提升本系的學術水準，增進教師間學術研

究心得之砥礪。例如本系部分師生於 101 年起組成發展 GMM(Growth Mixed Model)之潛在成長曲線模型(Latent Growth Model; LGM)以及潛在軌跡類型模型(Latent Growth Class Model; LGCM) 探討機構或社區老年群體各面向健康指標的長期變動軌跡成長。再將研究成果進一步導入計量統計諮詢組，促成計量分析技術之創新研發與持續成長。

相關項目：

1. 接受合作研究
2. 接受委託研究
3. 研究計畫書撰寫之諮詢
4. 統計方法選擇之諮詢
5. 提供資料輸入、資料檔轉換及資料處理與管理工作
6. 協助研究方法部份內容的撰寫諮詢
7. 統計分析以及統計結果判讀
8. 協助研究結果圖表之製作
9. 論文寫作以及投稿相關事項之諮詢
10. 規劃及提供研究與教育訓練課程

軟體設備：

NSCC 統計軟體、IBM SPSS statistics 19、SAS 9.2 等。

硬體設備：

設備名稱	廠牌型號
個人電腦(含螢幕)	ASUS AS - D760
雷射印表機	FUXIC2120

★ 電話：(02)2388-5111 分機 6603

★ 位置：健管系行政辦公室一樓西側

Value-Added Knowledge Center for Health Data

Currently, “data” is the combination of emergent technology and systemization. The objective of the healthcare value-added industry involves integrating various disease risk factors, clinical performances, correlation and optimal examination methods, and treatments and care models (e.g., drugs, equipment, and surgery) to establish a reference for clinical decision making. Thus, cultivating professionals who possess interdisciplinary health knowledge and are capable of managing and analyzing Big Data relevant to cloud health information is necessary. Interdisciplinary management and analysis personnel must understand both relational data and how nonstructured data are analyzed. Nonrelational data refers to browsing behavior on the Internet, uploaded discussions, and the relationships displayed on social websites. Regarding applications of industry-academia cooperation, various smart value-added application models will be developed for improving national welfare, including but not limited to the comprehensive care model, extraction of health and disease knowledge, and patient-oriented social platforms that provide educational knowledge on sanitations.

Measurement Statistics Advisory Unit

This unit was established to integrate school manpower, equipment, and resources to provide industry, government, and academic communities with opportunities for interdisciplinary cooperation and research consultation services. Actual processing and statistical analysis of research data is used to foster the data processing and statistical analysis abilities of teachers and students at the center. In addition to assisting department members with research-related issues, this unit also offers consulting services, such as research design, data processing, statistical analysis, and thesis writing, for external parties. Ultimately, the objective is to integrate practical implementation, theory, and knowledge application, thereby improving the research standards of the department and competitiveness of our students. Furthermore, education research and development are combined in the Measurement Statistics Advisory Unit to promote the innovative development and sustainable

growth of quantitative analysis techniques, generating opportunities for collaboration with relevant industry, government, and academic institutions. The “Free Industry Clinics” held in the past have yielded numerous examples of successful collaboration. For example, in August 2012, the department teachers and students were commissioned by the Taipei City Songshan District Health Service Center to manage and analyze public screening, disease prevention, and other health risk information. The results of this endeavor facilitated forming the Influenza Vaccine and Diabetes Health Promotion Program, driving the development of smart healthcare services throughout the Songshan district.

Health Data Research and Development Unit

This unit was established to combine national sanitation and healthcare data (including national health insurance data, the H45 Taiwan experience empirical investigation database and data analysis, and the Panel Study of Family Dynamics) for teaching and research use by students and teachers in the department. Regular discussions and practical research and development of quantitative analysis models are used as the basis to direct teachers and students toward focusing on large-scale databases. For students, these databases can assist and guide students in performing simulations and practical database analysis. Such databases also enable teachers to cooperate with industry, government, and academic communities and engage in healthcare-related research, thus improving both the academic standards of the department and the research experience of teachers. For example, in 2012, teachers and students developed a latent growth model (LGM) and latent growth class model (LGCM) of the growth mixed model (GMM) to explore the long-term growth variations of health indicators for institutions or community elderly groups. The results of this study were introduced to the Measurement Statistics Advisory Unit, contributing to the innovative development and sustainable growth of quantitative analysis techniques.

Relevant services:

11. Collaborative research
12. Commissioned research

13. Research plan writing consultation
14. Statistical analysis consultation
15. Data input, data file conversion, data processing, and management
16. Writing of research methodology
17. Statistical analysis and result interpretation
18. Production of research results and graphs
19. Consultation on thesis writing and journal submission
20. Planning and provision of research and educational training courses

Software: NSCC statistical software, IBM SPSS 19, and SAS 9.2.

Hardware:

Equipment	Brand and model number
Personal computer (including screen)	ASUS AS - D760
Laser printer	FUXIC2120

- ★ Telephone: (02) 2388-5111 Ext. 6603
- ★ Location: Healthcare administration and management office, first floor, west side