

CURRICULUM VITAE

簡易履歷

PERSONAL

NAME(姓名，含英譯)

溫啟邦

Chi Pang Wen, MD, DrPH.

PROFESSIONAL APPOINTMENT (現職，含英譯)

國家衛生研究院 群體健康科學研究所 名譽研究員

Honorary Investigator, National Health Research Institutes, Taiwan

EDUCATION(學歷)

臺灣大學醫學院醫科醫學士

美國哈佛大學公共衛生學院公共衛生碩士、博士

WORKING EXPERIENCE (經歷)

美國哈佛大學公共衛生學院博士後研究員

美國密芝根州立大學醫學院助理教授

美國德州大學休士頓醫學院教授

中央研究院生醫所研究員

國家衛生研究院醫保組研究員

美國專科醫師雙證照：家庭醫學科、環境職業醫學科

臺灣醫界菸害防制聯盟 發起人

臺灣醫事人員促進運動聯盟 發起人

美國德州醫師行醫執照

美國杜蘭大學公共衛生暨熱帶醫學院社區健康科學系 兼任教授

美國德州大學公共衛生學院職業與環境醫學系 兼任教授

MAJOR RESEARCH AREA(研究領域)

衛生政策、運動與健康、健康促進、減壽因數、平均餘命、靜止心跳、職業環境醫學、菸害防制、

慢腎病、洗腎、糖尿病、中風、癌症(腸癌、肺癌、肝癌、攝護腺、乳癌、口腔、鼻咽癌)

1. Wen, C. P., Wai, J. P. M., Wen, C., Tsai, M. K., Chen, C. H., & Chiou, H. Y. (2022). Uncovering mechanisms to prevent dementia with quantifiable feedback from wearable devices. *EClinicalMedicine*, 52, 101621. doi:10.1016/j.eclinm.2022.101621
2. Tsai, M. K., Gao, W., Chien, K. L., Hsu, C. C., & Wen, C. P. (2022). Role of Physical Activity in Lowering Risk of End-Stage Renal Disease. *Mayo Clin Proc*, 97(5), 881-893. doi:10.1016/j.mayocp.2021.10.027
3. Tsai, M. K., Gao, W., Chien, K. L., Hsu, C. C., & Wen, C. P. (2022). A prediction model with lifestyle factors improves the predictive ability for renal replacement



therapy: a cohort of 442 714 Asian adults. *Clin Kidney J*, 15(10), 1896-1907.

doi:10.1093/ckj/sfac119

4. Tsai, S. P., Wen, C. P., Tsai, M. K., Lu, P. J., Wai, J. P. M., Wen, C., . . . Wu, X. (2021). Converting health risks into loss of life years - a paradigm shift in clinical risk communication. *Aging (Albany NY)*, 13(17), 21513-21525.
doi:10.18632/aging.203491
5. Tsai, M. K., Gao, W., Chien, K. L., Kyaw, T. W., Baw, C. K., Hsu, C. C., & Wen, C. P. (2023). Resting Heart Rate Independent of Cardiovascular Disease Risk Factors Is Associated With End-Stage Renal Disease: A Cohort Study Based on 476 347 Adults. *J Am Heart Assoc*, 12(23), e030559. doi:10.1161/jaha.123.030559
6. Gao, W., Wen, C. P., Wu, A., & Welch, H. G. (2022). Association of Computed Tomographic Screening Promotion With Lung Cancer Overdiagnosis Among Asian Women. *JAMA Intern Med*, 182(3), 283-290.
doi:10.1001/jamainternmed.2021.7769
7. Coresh, J.,...Wen, C. P....Gansevoort, R. T. (2019). Change in albuminuria and subsequent risk of end-stage kidney disease: an individual participant-level consortium meta-analysis of observational studies. *Lancet Diabetes Endocrinol*, 7(2), 115-127. doi:10.1016/s2213-8587(18)30313-9
8. Grams, M. E., Coresh, J., Matsushita, K., Wen, C. P., . . . Gansevoort, R. T. (2023). Estimated Glomerular Filtration Rate, Albuminuria, and Adverse Outcomes: An Individual-Participant Data Meta-Analysis. *Jama*, 330(13), 1266-1277.
doi:10.1001/JAMA.2023.17002
9. Wen, C. P., Wai, J. P. M., Chen, C. H., & Gao, W. (2021). Can weight loss be accelerated if we exercise smarter with wearable devices by subscribing to Personal Activity Intelligence (PAI)? *Lancet Reg Health Eur*, 5, 100133.
doi:10.1016/j.lanepe.2021.100133
10. Shu, C.-C., Tsai, M. K., Lee, J. H., Su, T.-C., & Wen, C. P. (2024). Mortality risk in patients with preserved ratio impaired spirometry: assessing the role of physical activity. *QJM: An International Journal of Medicine*. doi:10.1093/qjmed/hcae010
11. Gao, W., Sanna, M., Chen, Y. H., Tsai, M. K., & Wen, C. P. (2024). Occupational Sitting Time, Leisure Physical Activity, and All-Cause and Cardiovascular Disease Mortality. *JAMA Netw Open*, 7(1), e2350680.
doi:10.1001/jamanetworkopen.2023.50680
12. Cao, Z., Li, W., Wen, C. P., Li, S., Chen, C., Jia, Q., . . . Wu, X. (2023). Risk of Death Associated With Reversion From Prediabetes to Normoglycemia and the Role of Modifiable Risk Factors. *JAMA Netw Open*, 6(3), e234989.
doi:10.1001/jamanetworkopen.2023.4989
13. Hammer, P., Tari, A. R., Franklin, B. A., Wen, C. P., Wisløff, U., & Nauman, J. (2022).

- Personal Activity Intelligence and Ischemic Heart Disease in a Healthy Population: China Kadoorie Biobank Study. *J Clin Med*, 11(21). doi:10.3390/jcm11216552
14. Grams, M. E., Brunskill, N. J., Ballew, Wen, C. P...et al.(2022). Development and Validation of Prediction Models of Adverse Kidney Outcomes in the Population With and Without Diabetes. *Diabetes Care*, 45(9), 2055-2063. doi:10.2337/dc22-0698
 15. Grams, M. E., Wen, C. P...et al. (2023). The Kidney Failure Risk Equation: Evaluation of Novel Input Variables including eGFR Estimated Using the CKD-EPI 2021 Equation in 59 Cohorts. *J Am Soc Nephrol*, 34(3), 482-494. doi:10.1681/asn.0000000000000050
 16. Matsushita, K., Kaptoge, S,...Wen, C. P...et al. (2023). Including measures of chronic kidney disease to improve cardiovascular risk prediction by SCORE2 and SCORE2-OP. *Eur J Prev Cardiol*, 30(1), 8-16. doi:10.1093/eurjpc/zwac176
 17. Chen, C. H., Tsai, M. K., Lee, J. H., Wen, C., & Wen, C. P. (2022). Association of Sugar-Sweetened Beverages and Cardiovascular Diseases Mortality in a Large Young Cohort of Nearly 300,000 Adults (Age 20-39). *Nutrients*, 14(13). doi:10.3390/nu14132720
 18. Chen, C. H., Tsai, M. K., Lee, J. H., Lin, R. T., Hsu, C. Y., Wen, C., . . . Wen, C. P. (2022). "Sugar-Sweetened Beverages" Is an Independent Risk From Pancreatic Cancer: Based on Half a Million Asian Cohort Followed for 25 Years. *Front Oncol*, 12, 835901. doi:10.3389/fonc.2022.835901
 19. Liu, Y.-T., Lee, J. H., Tsai, M. K., Wei, J. C.-C., & Wen, C.-P. (2022). The effects of modest drinking on life expectancy and mortality risks: a population-based cohort study. *Scientific Reports*, 12(1), 7476. doi:10.1038/s41598-022-11427-x
 20. Chen, C. H., Tsai, M. K., Wen, C., & Wen, C. P. (2021). A user-friendly objective prediction model in predicting colorectal cancer based on 234 044 Asian adults in a prospective cohort. *ESMO Open*, 6(6), 100288. doi:10.1016/j.esmoop.2021.100288
 21. Gao, W., Sanna, M., Huang, G., Hefler, M., Tsai, M.-K., & Wen, C.-P. (2021). Examining Population Health During the COVID-19 Pandemic: All-Cause, Pneumonia and Influenza, and Road Traffic Deaths in Taiwan. *Annals of Internal Medicine*, 174(6), 880-882. doi:10.7326/M20-7788
 22. Wen, C. P., Lee, Y. C., Sun, Y. T., Huang, C. Y., Tsai, C. H., Chen, P. L., . . . Hsu, C. Y. (2021). Low-Density Lipoprotein Cholesterol and Mortality in Patients With Intracerebral Hemorrhage in Taiwan. *Front Neurol*, 12, 793471. doi:10.3389/fneur.2021.793471
 23. Gao, W., Wen, C. P. Rapid Response: Contradictory findings on asymptomatic COVID-19 infection from China and the WHO-China Joint Mission on COVID-19.

British Medical Journal 2020; 369. SCI:93.47.

<https://www.bmj.com/content/369/bmj.m1375/rapid-responses>

24. Sanna, M., Gao, W., Chiu, Y. W., Chiou, H. Y., Chen, Y. H., Wen, C. P., & Levy, D. T. (2020). Tobacco control within and beyond WHO MPOWER: outcomes from Taiwan SimSmoke. *Tob Control*, 29(1), 36-42. doi:10.1136/tobaccocontrol-2018-054544
25. Gao, W., Sanna, M., Chuluunbaatar, E., Tsai, M. K., Levy, D. T., & Wen, C. P. (2021). Are e-cigarettes reviving the popularity of conventional smoking among Taiwanese male adolescents? A time-trend population-based analysis for 2004-2017. *Tob Control*, 30(2), 132-136. doi:10.1136/tobaccocontrol-2019-055310
26. Wang, H. K., Huang, C. Y., Sun, Y. T., Li, J. Y., Chen, C. H., Sun, Y., . . . Wen, C. P.... Hsu, C. Y. (2020). Smoking Paradox in Stroke Survivors? Uncovering the Truth by Interpreting 2 Sets of Data. *Stroke*, 51(4), 1248-1256. doi:10.1161/strokeaha.119.027012
27. Gao, W., Sanna, M., Tsai, M. K., & Wen, C. P. (2020). Geo-temporal distribution of 1,688 Chinese healthcare workers infected with COVID-19 in severe conditions-A secondary data analysis. *PLoS One*, 15(5), e0233255. doi:10.1371/journal.pone.0233255
28. Xie, K., Chen, C.-H., Tsai, S.-P., Lu, P.-J., Wu, H., Zeng, Y., . . . Wen, C.-P. Wu, X. (2019). Loss of Life Expectancy by 10 Years or More From Elevated Aspartate Aminotransferase: Finding Aspartate Aminotransferase a Better Mortality Predictor for All-Cause and Liver-Related than Alanine Aminotransferase. *The American journal of gastroenterology*, 114(9), 1478-1487. doi:10.14309/ajg.0000000000000332
29. Gao, W., Sanna, M., Hefler, M., & Wen, C. P. (2020). Air pollution is not 'the new smoking': comparing the disease burden of air pollution and smoking across the globe, 1990-2017. *Tobacco Control* 29(6), 715-718. doi: 10.1136/tobaccocontrol-2019-055181.
30. Gao, W., Sanna, M., Branston, J. R., Chiou, H.-Y., Chen, Y.-H., Wu, A., & Wen, C. P. (2019). Exploiting a low tax system: non-tax-induced cigarette price increases in Taiwan 2011-2016. *Tob Control*, 28(e2), e126-e132. DOI:10.1136/tobaccocontrol-2018-054908
31. Sun, Y., Tsai, M. K., & Wen, C. P. (2023). Association of sleep duration and sleeping pill use with mortality and life expectancy: A cohort study of 484,916 adults. *Sleep Health*, 9(3), 354-362. doi:10.1016/j.sleh.2023.01.017
32. Wang, S., Wen, C. P., Li, W., Li, S., Sun, M., Xu, A., . . . Wu, X. (2023). Development of a Novel Multidimensional Measure of Aging to Predict Mortality and Morbidity in the Prospective MJ Cohort. *J Gerontol A Biol Sci Med Sci*, 78(4), 690-697.

doi:10.1093/gerona/glac161

33. Shu, C. C., Lee, J. H., Tsai, M. K., Su, T. C., & Wen, C. P. (2021). The ability of physical activity in reducing mortality risks and cardiovascular loading and in extending life expectancy in patients with COPD. *Sci Rep*, *11*(1), 21674. doi:10.1038/s41598-021-00728-2
34. Nauman, J., Sui, X., Lavie, C. J., Wen, C. P., Laukkanen, J. A., Blair, S. N., . . . Wisløff, U. (2021). Personal activity intelligence and mortality - Data from the Aerobics Center Longitudinal Study. *Prog Cardiovasc Dis*, *64*, 121-126. doi:10.1016/j.pcad.2020.05.005
35. Wen, C. P., Tsai, M. K., Lee, J. H., Chiou, H. Y., Wen, C., Chu, T. D., & Chen, C. H. (2024). Uncovering a dose-response relationship between positive fecal immunochemical test (FIT) and all-cause, cardiovascular and cancer-related mortality. *Eur J Intern Med*, *120*, 69-79. doi:10.1016/j.ejim.2023.09.023
36. Tsai, M. K., Gao, W., & Wen, C. P. (2023). The relationship between alcohol consumption and health: J-shaped or less is more? *BMC Med*, *21*(1), 228. doi:10.1186/s12916-023-02911-w
37. Gao, W., Wen, C. P., & Welch, H. G. (2022). Should We Screen Never-Smoking Asian Women for Lung Cancer Using Low-Dose Computed Tomography?-Reply. *JAMA Intern Med*, *182*(7), 782-783. doi:10.1001/jamainternmed.2022.1804
38. Lin, J. H., Wen, C. P., Jiang, C. Q., Yuan, J. M., Chen, C. J., Ho, S. Y., . . . Lam, T. H. (2021). Smoking and nasopharyngeal cancer: individual data meta-analysis of six prospective studies on 334 935 men. *Int J Epidemiol*, *50*(3), 975-986. doi:10.1093/ije/dyab060
39. Gao, W., Chuluunbaatar, E., & Wen, C. P. (2018). Smokers with diabetes: Twice as deadly and shortened life by 15 years. *Tobacco Induced Diseases*, *16*(3). doi:10.18332/tid/94795

從台灣經驗看生活型態改變，尤其運動對糖尿病的影響

糖尿病最佳良方：聰明運動，多活 16 年

溫啟邦 國家衛生研究院名譽研究員

糖尿病者大都缺乏運動，先談運動對糖尿病的好處，它太重要了 1)活化胰島素：使抗拒無用的胰島素轉有用 2)下降血糖與糖化血紅素，HbA1c, 3)延長壽命(糖尿病減壽九年) 4)減少多種死亡：包括心血管疾病、糖尿病、腎臟病、全死因 5)使蛋白尿(輕度)消失 6)預防及減少慢性腎病(CKD) (7)減少洗腎、減少醫療費用 8)提高心肺體適能 (Cardiorespiratory Fitness CRF) 9)對肥胖的直球對決。總而言之，運動不但是良醫良藥(Exercise is medicine)，它是萬靈藥 (Miracle medicine)，對全身百病都有用，超過任何藥物，有病治病，沒病強身。

雖然大家都知道要運動，但是藉口繁多、有 101 個，沒時間、沒環境運動、沒夥伴、沒人教、外面下雨、有飯局、反正沒人知道我沒運動，是爹不疼娘不愛藥廠不贊助學校不重視的孤兒棄嬰，有人運動對健康很有用，有人卻沒有效果，或是效果來得太小太慢無感。如何教人從事有感有效運動呢？要能聰明運動。運動要趣味化、社交化、制度化、競賽化、紀錄化。紀錄運動使用追蹤回饋機制，使用智慧型手表(有測心跳功能者)，將資料傳到手機，經新軟體轉換為分數 PAI(活力指數)，以達到每周 100 PAI 為目標。活力指數會根據個人運動時產生的高心跳時間之總和給分，誘導選取對糖尿病最有效的運動。

在一般健檢檢查項目中，常見病或危險因子(盛行率>5%)當中最嚴重令人早夭的就是糖尿病。在 35 項常見危險因子中，單是糖尿病，就短命 9 歲，若伴隨高血壓短命 13 歲，有吸菸 15 歲，發現有蛋白尿短命 16 歲。(糖尿病患者不知驗尿蛋白，比驗糖尿更重要)。糖尿病不只是一種慢性病，它更是多種疾病的危險因子；心臟病、中風、癌症、慢性腎病(半數洗腎者都有糖尿病)、感染等。

本課程將教導學員，如何說服誘導病人運動的方法，從完全不運動轉為偶而運動，從偶而運動昇階到經常運動，從有規律運動進化為聰明運動，從個人單打獨鬥，轉為獲取醫師及照護團隊的加持回饋指導，每週調整，獲取最大的健康，擺脫糖尿病的困擾。本課程也將介紹活力指數(PAI)，將運動功效最大化，直接降低血糖及「糖化血色素」(HgbA1c)，同時教導如何利用『心跳悖論』的原理，找到個人化的運動指標。

註：『心跳悖論』指運動若能減慢「靜止心跳」Resting Heart Rate(RHR)，健康效益特佳，但要能減慢靜止心跳，需作令心跳超快的運動(場上五分鐘、可多活五年)