

# 預防胃癌的策略、 瓶頸和挑戰

## 台大醫院 李宜家醫師報告



消化科醫師最常看  
「胃相」，可以反  
映胃癌風險



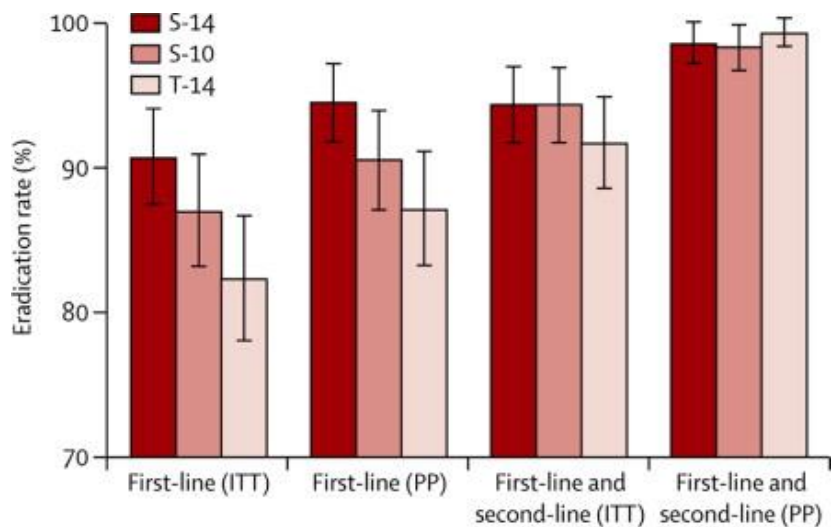


幽門桿菌引發發炎反應

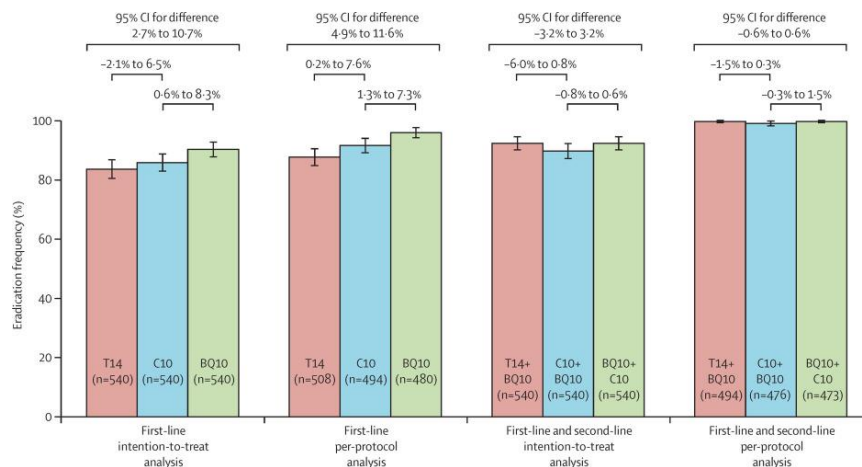


除菌後發炎變化會改善

胃癌預防效果如何?如何進行

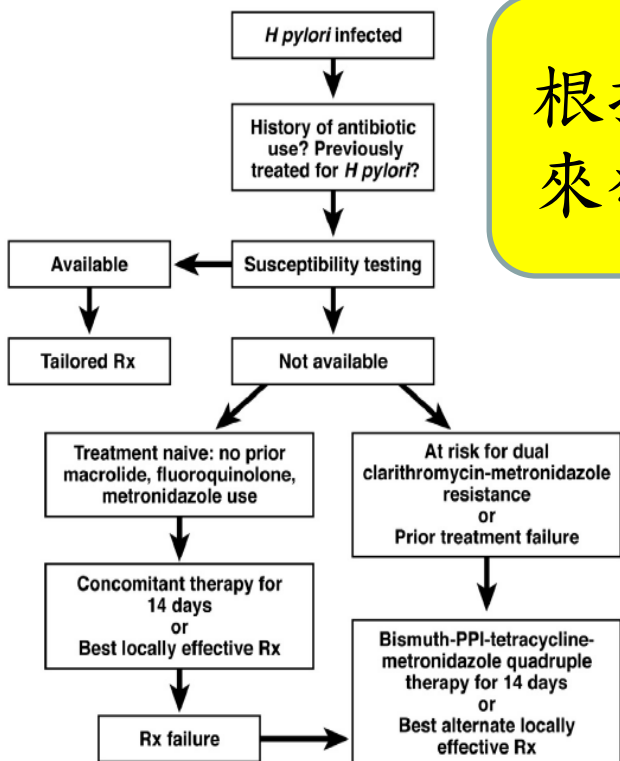
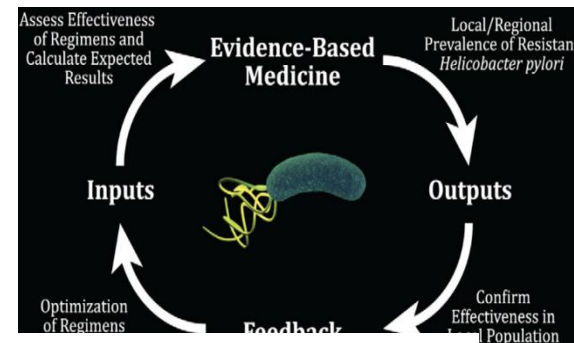


Lancet 2013 19;381(9862):205-13



Lancet 2016;388(10058):2355-65

根據抗生素管理系統  
來發展有效除菌策略



Predict resistance based on prior antibiotic use or previous treatment for *H pylori*

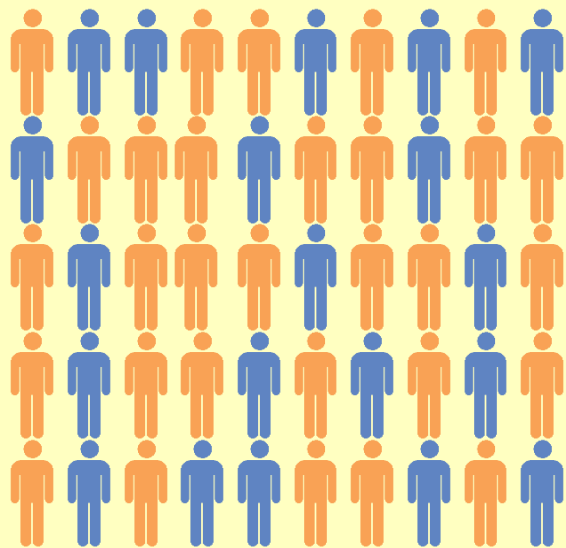
Treatment outcomes (per protocol)

Prediction for Clari and Metro	7 day triple	14 day triple	10 day sequential	14 day sequential	14 day concomitant
Both susceptible	94%	97%	95%	98%	97%
Clari-resistant	STOP < 20%	STOP ~ 50%	STOP 80%	STOP 88%	STOP 97%
Metro-resistant	94%	97%	STOP 75%	STOP 75%	STOP 97%
Dual resistance	STOP < 20%	STOP ~ 50%	STOP < 20%	STOP < 20%	STOP 50%

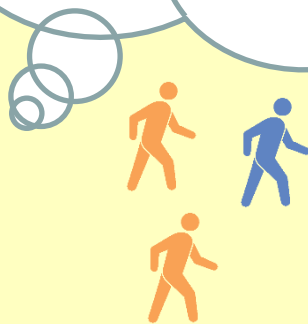
Clin Gastroenterol Hepatol 2014;12:177-86.e3



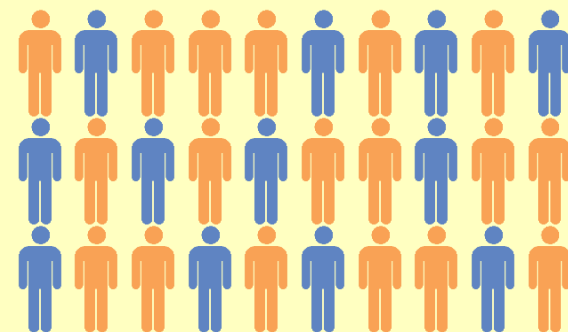
策略如何推行?  
達成甚麼效果?  
遭遇甚麼瓶頸?  
如何克服挑戰?



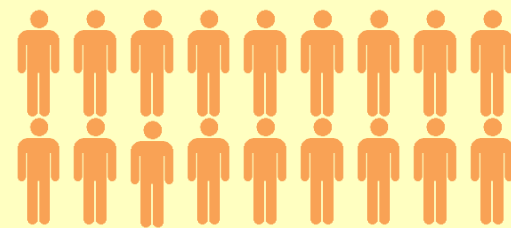
大社區執行



邀約



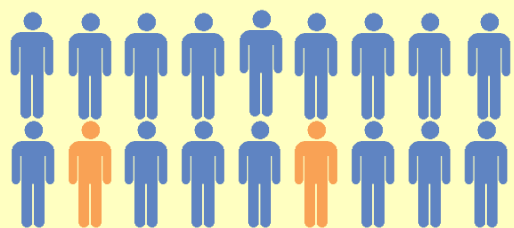
檢測



帶菌



轉介



治療

# 提出哪些策略?

1 全面根除法

2 二合一法

3 指標個案法





# 他們也曾在東引

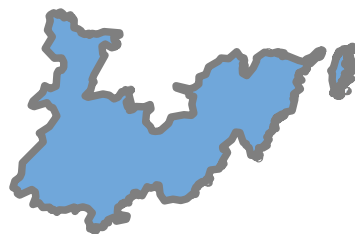
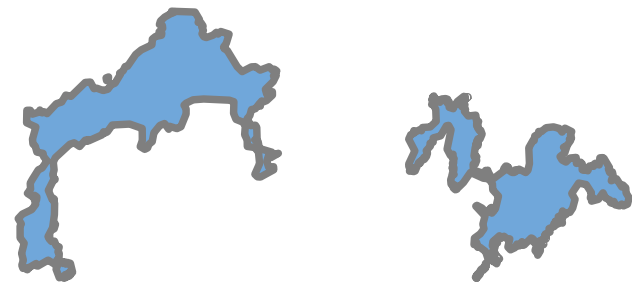
臥虎藏龍的東引島，過去數十年來曾在此度過軍旅歲月的官兵超過數十萬人，這段時光或許是人生裡的一個章節，但在外島服兵役的歷練，卻能夠成為生命中最精彩的故事。退伍離開東引，前程發展無可限量！也許是在螢光幕上見到的藝人，或是在教育界貢獻的的學者，還可能是創辦知名企業的老闆。他們，也曾在東引。



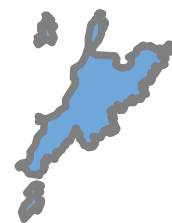
爭取最後勝利

# 全面根除法：邀請居民參加胃癌預防篩檢

Since 2004



根據戶籍，邀請30歲以上的民眾參加篩檢及除菌，快速達成高度涵蓋率



行政院新聞局出版事業登記證警政字第0031號  
 中華郵政特准掛號認爲新聞紙類

## 馬祖日報

MATSU DAILY NEWS  
 中華民國八十二年一月一日創刊  
 本報地址：馬祖南竿鄉中興路10號  
 電話：(0836)2331  
 傳真：(0836)2332

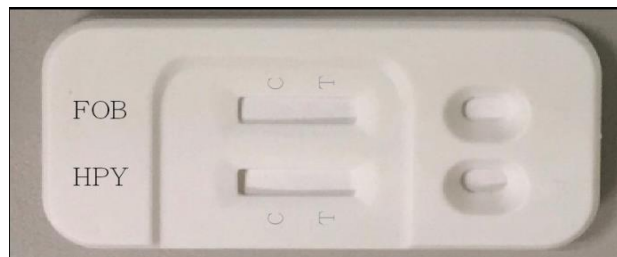
防疫小叮嚀：《防疫新生活運動》落實個人衛生防護，保持社交距離，座採梅花座

### 相約十五隕桃園連演2場 獲鄉親

副縣長王忠銘熱情歡迎大家到來，音樂劇感人肺腑充滿親情、鄉情與信仰之情，台上台下激盪！  
 親臨帶天歌文樂

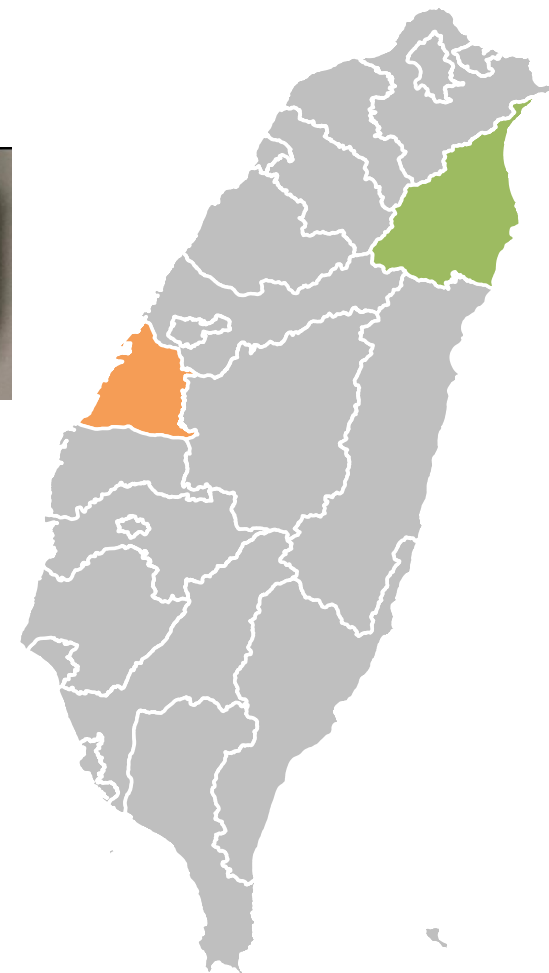
馬祖胃癌篩檢治療成功範本 台大醫療團隊代代相傳  
 新任台大醫院院長吳明賢防治第1代成員，與馬祖早有淵源

# 二合一法: 既有國家系統整合消化道癌防治



既有針對50-74  
歲民眾大腸癌免  
疫法糞便潛血檢  
查政策

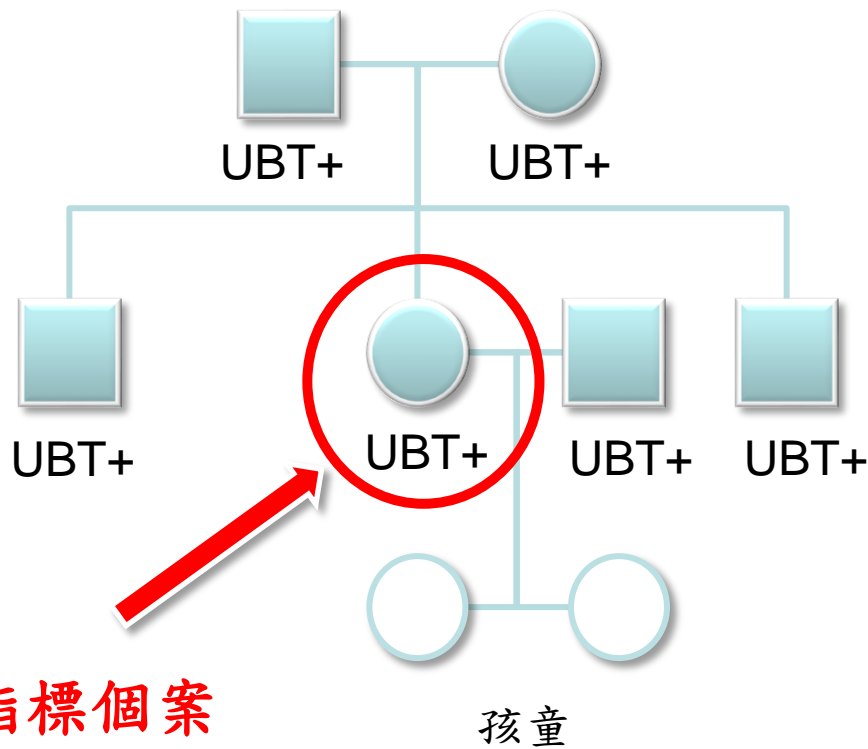
引入幽門桿菌糞便  
抗原檢查，降低篩  
檢系統的花費，提  
升篩檢效益



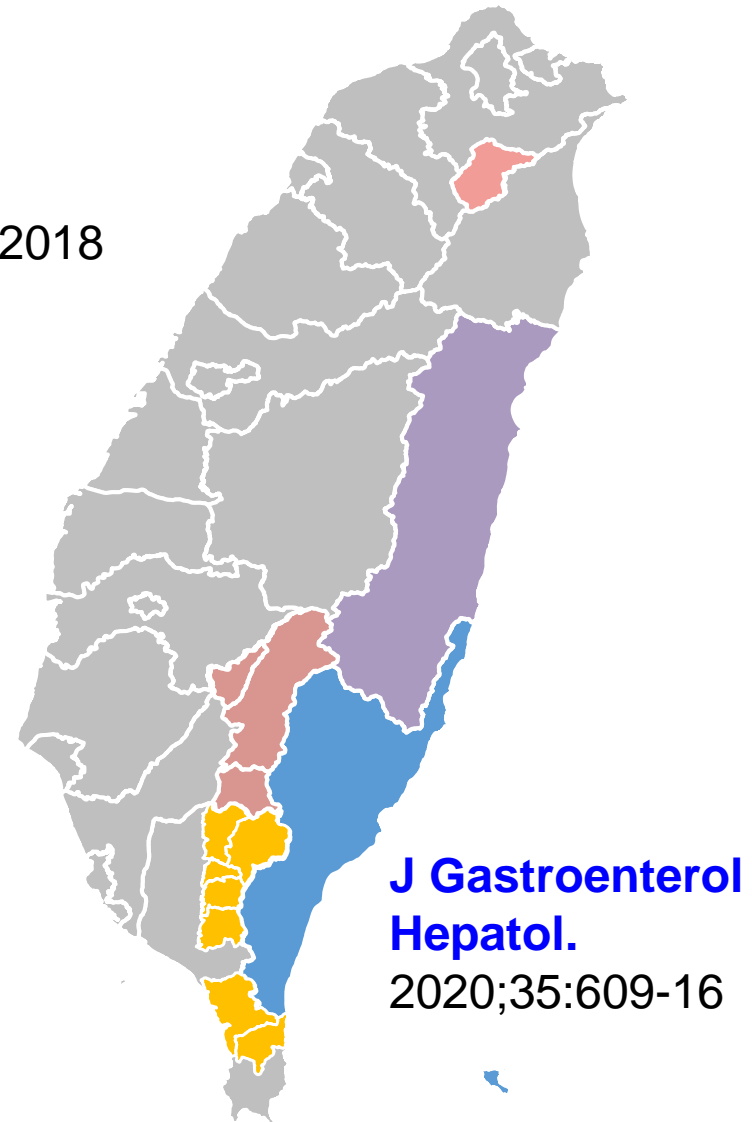
Since 2012



# 指標個案法: 針對偏鄉資源發展 出以家戶為主的篩檢模式



Since 2018



社區聚會篩檢出陽性個案，進而  
邀約其家庭成員進行家戶篩檢，  
提高偵出率及服藥順從率



# 在馬祖四鄉五島建置預防系統 邀約、篩檢、轉介、治療、鏡檢

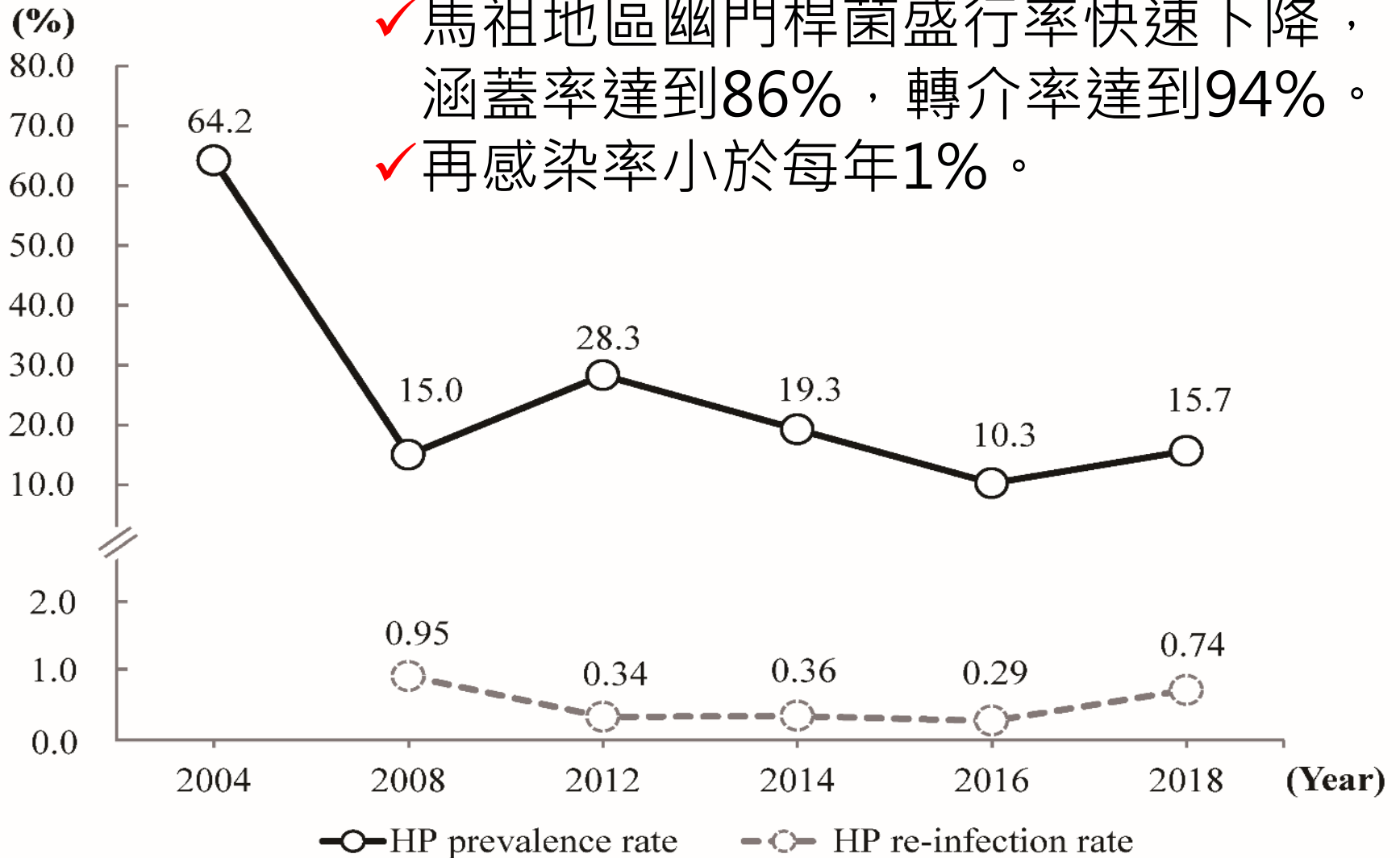
## 瓶頸



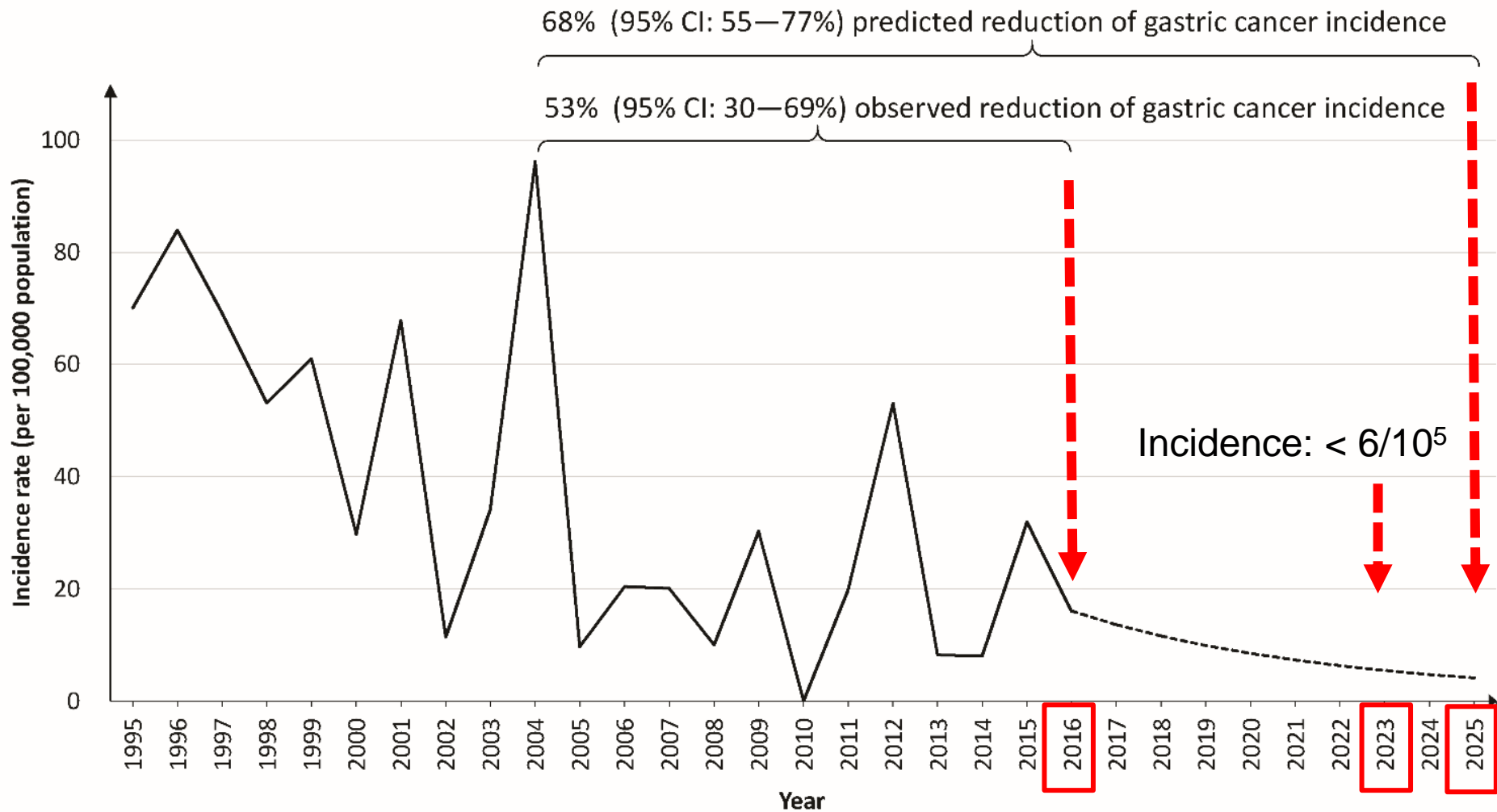


# 達成甚麼效果？

- ✓ 馬祖地區幽門桿菌盛行率快速下降，涵蓋率達到86%，轉介率達到94%。
- ✓ 再感染率小於每年1%。

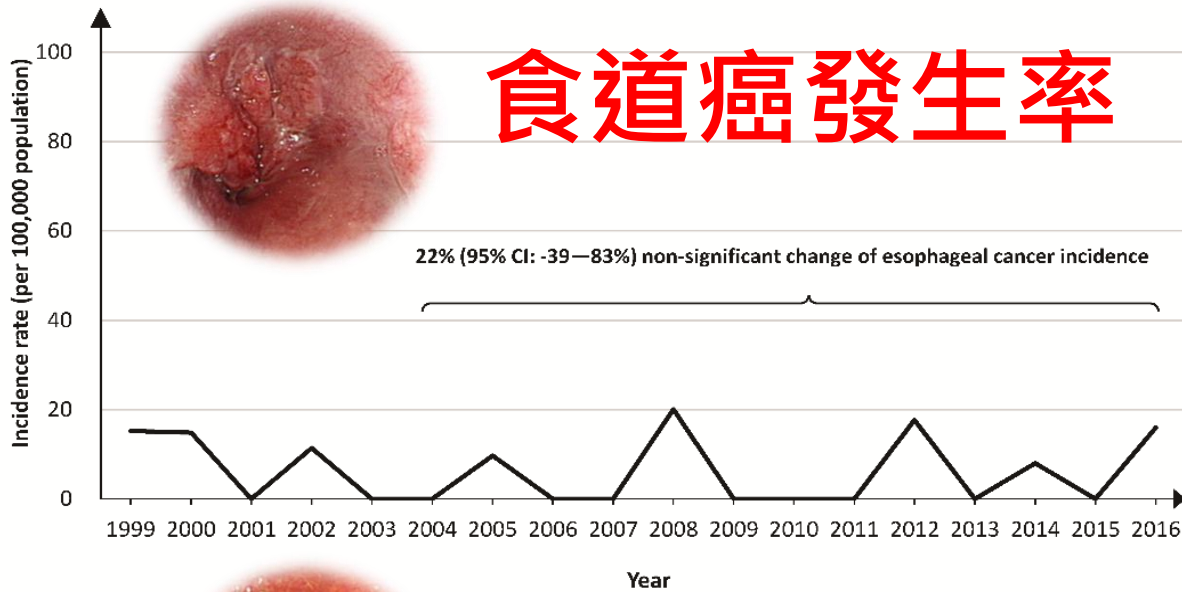


# 胃癌發生率顯著下降 (考量歷史效應)



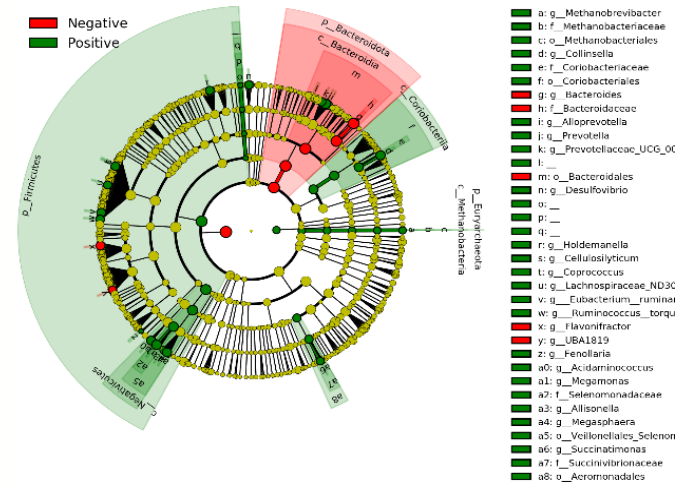
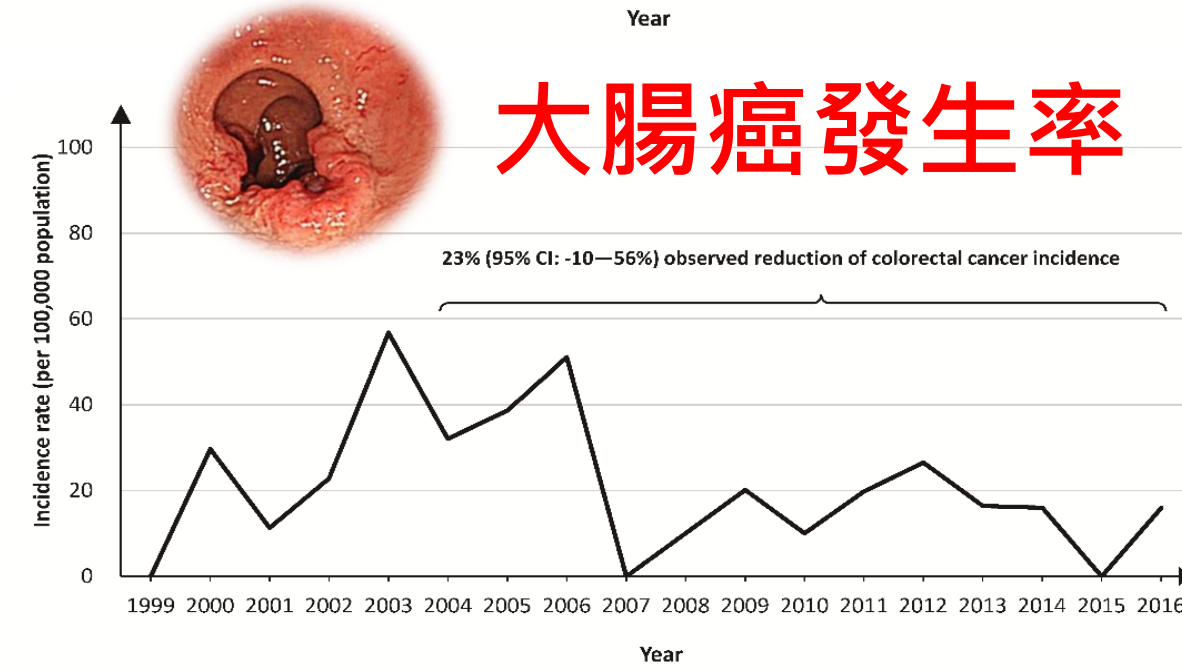


# 食道癌發生率



短期抗生素治療對於腸道菌相有短暫的變化，對其他消化道癌症並沒有長期影響

# 大腸癌發生率





# 大腸癌國家篩檢政策下，建置胃癌預防系統

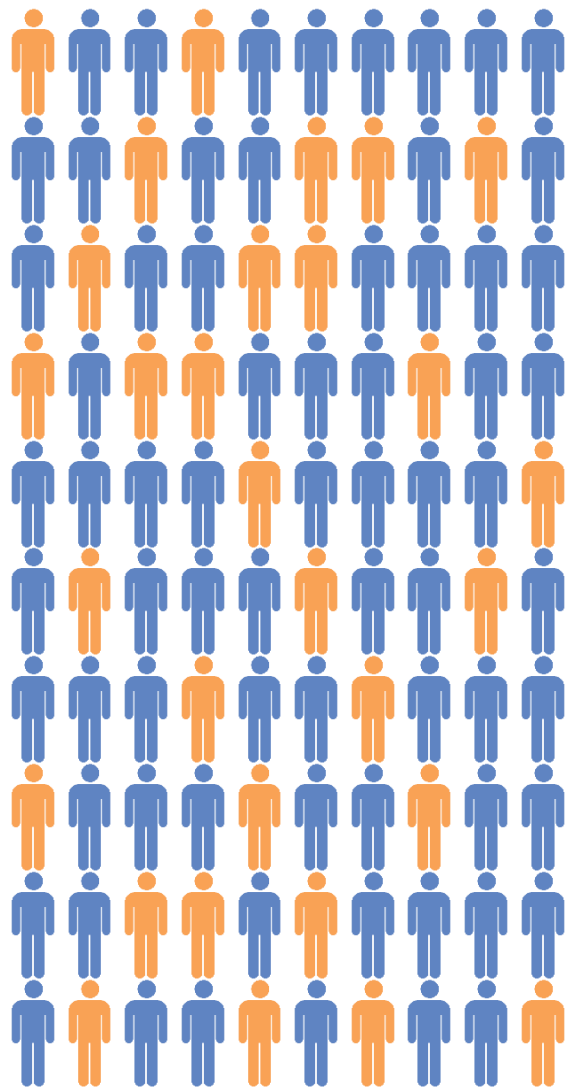
邀約、篩檢、轉介、治療、鏡檢

瓶頸



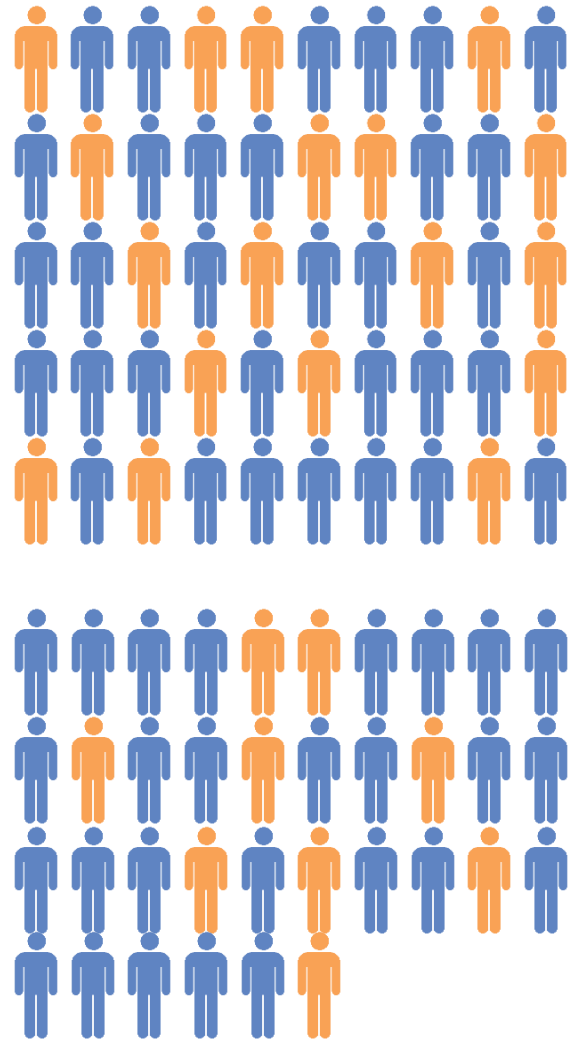


# 邀約民眾



- 有大腸腫瘤
- 沒有大腸腫瘤

# 參與民眾



二合一法

傳統篩檢

- 增加篩檢參與率14%
- 增加大腸腫瘤偵出率30%
- 降低胃癌發生率10%

# 原住民族胃癌防治模式



國民健康署與當地政府及衛生局所進行溝通並支持篩檢政策之施行



針對當地基層醫師與醫護人員進行相關教育訓練



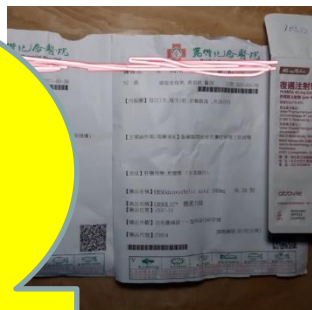
透過電子軟體及問卷調查來回覆與蒐集問題，迅速解決以及進行關懷



於期初、中期、末期舉辦經驗分享討論會



遠距即時QA，迅速解決問題



Chia 李宜家 李醫師，民用這些藥，吹氣有影響嗎

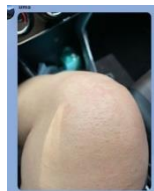


Yi-Chia 李宜家 麻煩李醫師，個案目前在吃這些抗生素（感冒）請問吃完後要隔多久可以吃一線藥？



@Yi-Chia 李宜家 醫師下午好  
本鄉某村民眾主訴 服用第二週藥物開始有斷斷強解血便 弱早  
下午前往某地段巡迴醫看診  
便詢問本鄉衛生所主任 此民眾  
有飲酒習慣 每天早上幾乎6瓶  
金牌啤酒 故已申請轉介至本週  
四下午花蓮慈濟醫院雷醫師診  
會安排進一步檢查 目前藥物有  
需要停止還是繼續服用？  
下午 2:28

應該停藥處理血便，大腸腫瘤的機會大



算陽性



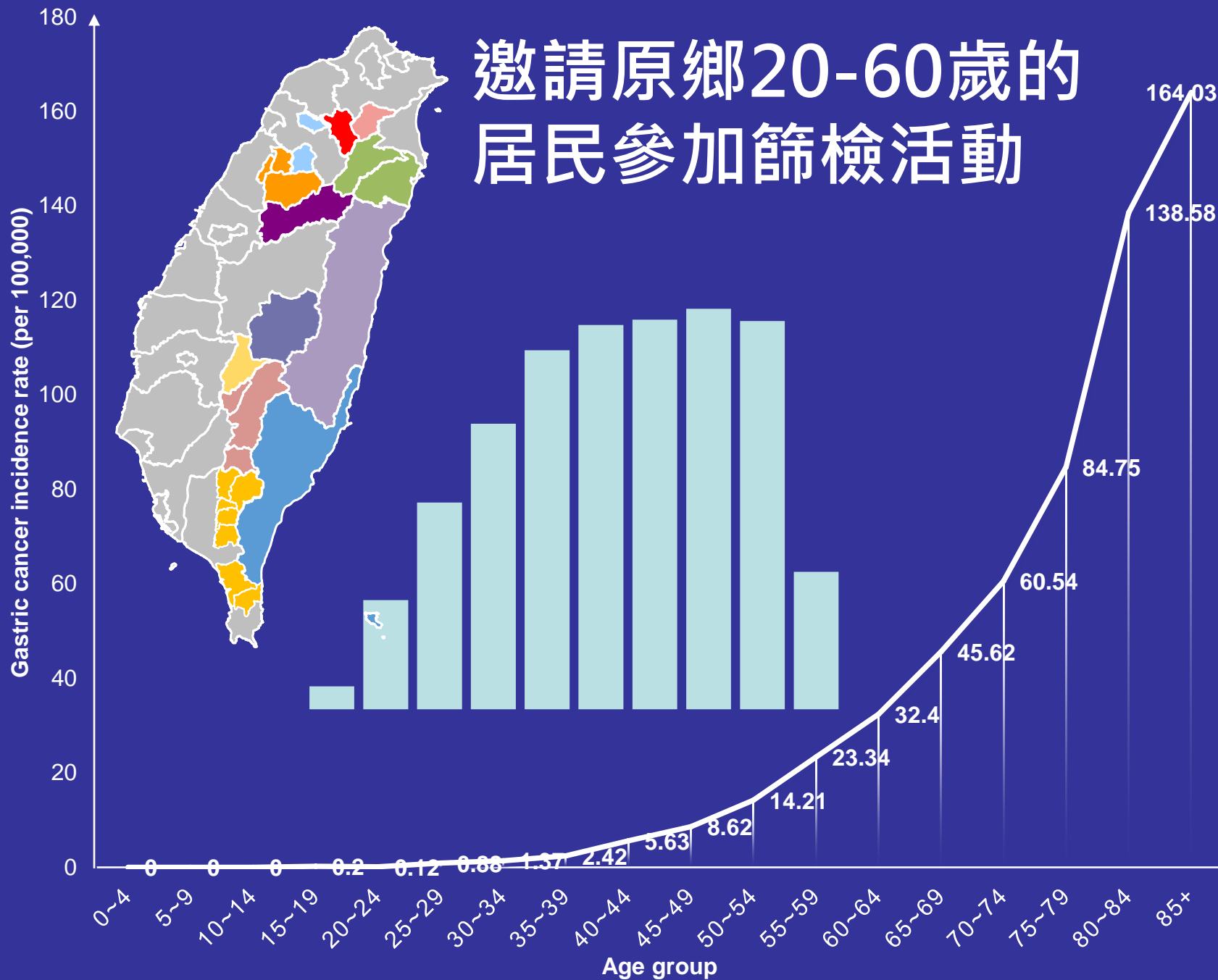


在偏遠地區建置胃癌預防系統  
邀約、篩檢、轉介、治療、鏡檢

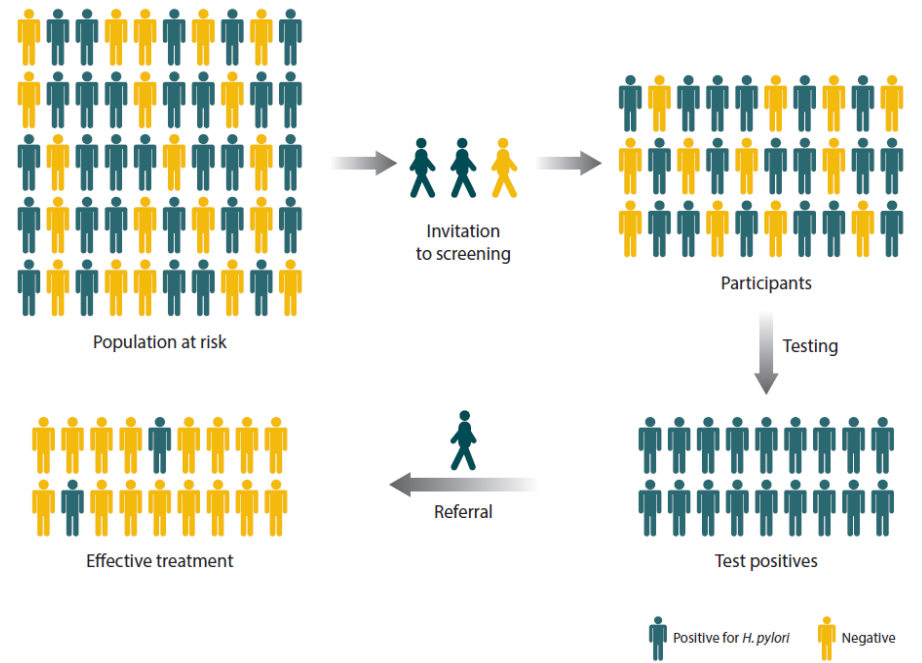
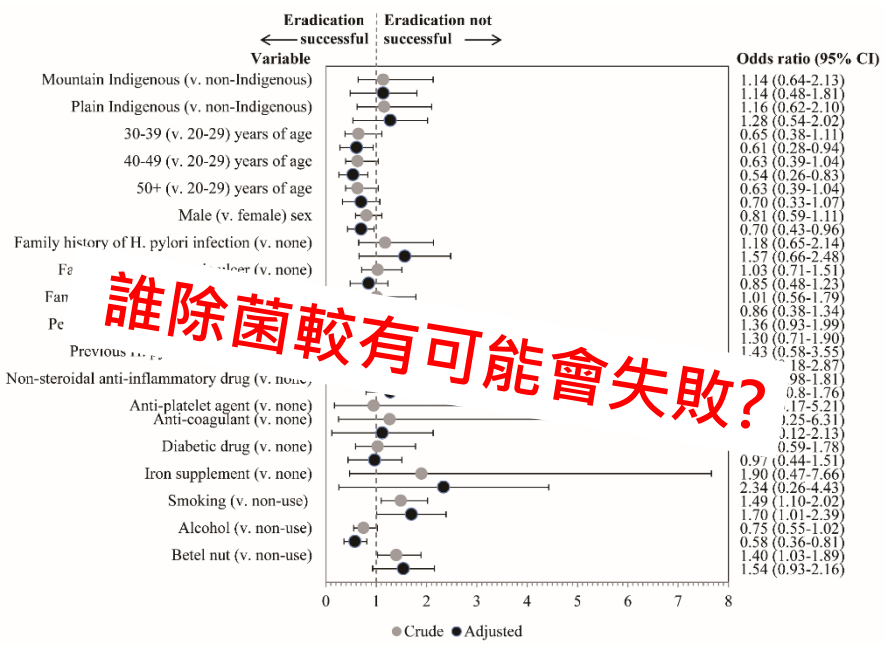
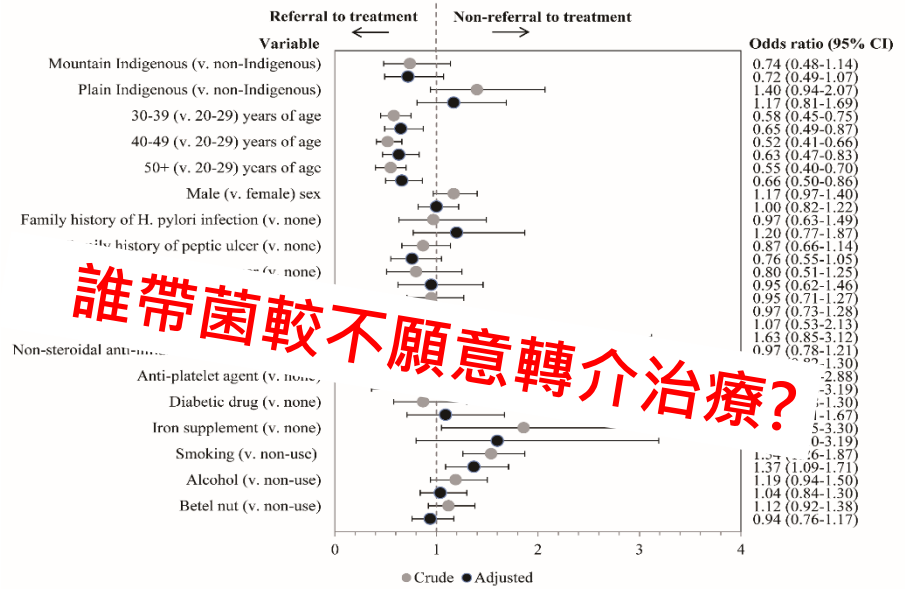
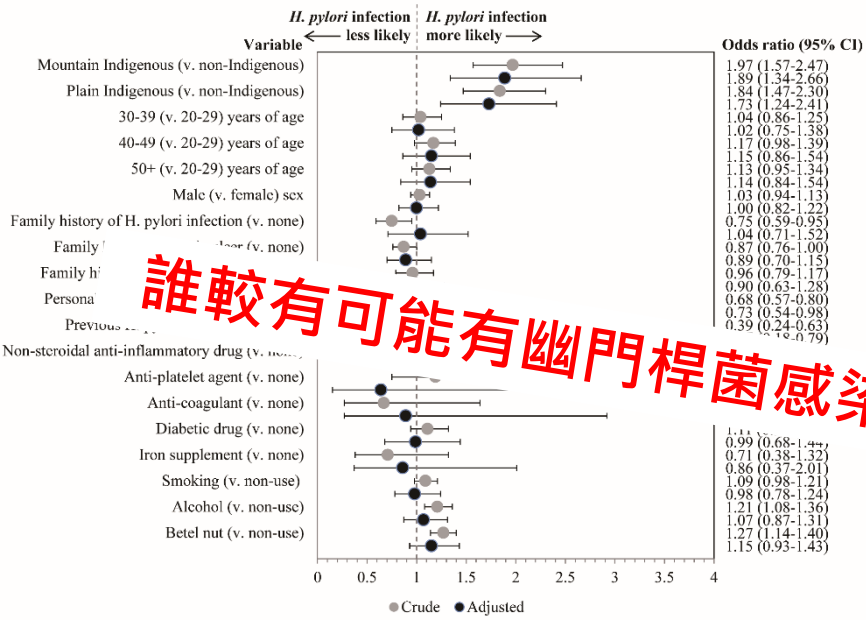
瓶頸



# 邀請原鄉20-60歲的居民參加篩檢活動





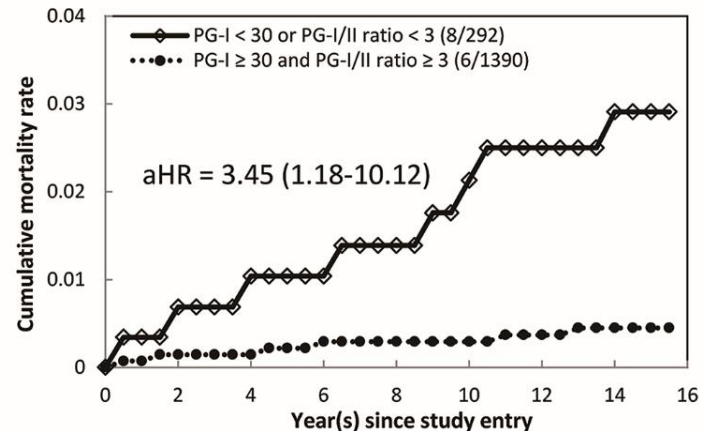




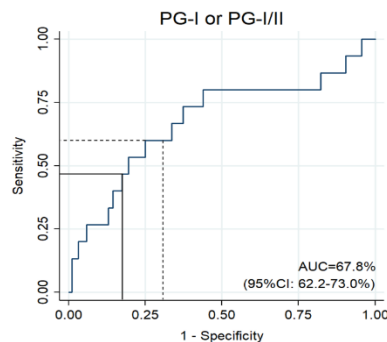
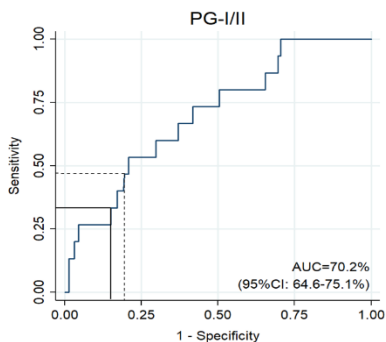
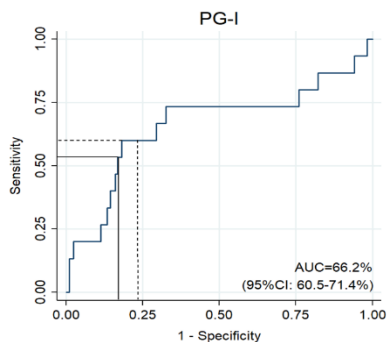


# 內視鏡資源的合理運用 挑戰1

Marker	HP IgG	G-17	PG-I	PG-II	PG-I/II ratio
Mechanism	IgG antibodies generated from HP infection	G-17 produced by antrum G cells	PG-I secreted by chief and mucous neck cells	PG-II secreted by cells in the pyloric and Brunner glands	In atrophic gastritis of corpus, the ratio decreases
Range	<30 EIU	1-7 pmol/L	30-160 µg/L	3-15 µg/L	3-20
Abnormal	↑ Infection with HP	↓ Antrum atrophy or high gastric acid output	↓ Corpus atrophy	↑ Gastritis	↓ Corpus atrophy or pan-atrophy
Interpretation	High risk for gastric cancer		High risk for gastric cancer		



Serological biopsy  
血清學胃蛋白酶原



J Clin Gastroenterol.  
2019;53:e186-93;  
J Gastroenterol Hepatol.  
2021;36:671-9.



# 預防篩檢系統中診斷的胃癌 挑戰2

年分	年齡	性別	期別	篩檢階段
2011	73	男	III	2004接受除菌
2012	50	女	II	2005接受除菌 2016PG陰性
2012	81	女	III	2004吹氣陰性
2012	45	男	I	未參加篩檢
2013	60	男	III	2004接受除菌
2015	48	男	IV	2012接受除菌
2015	76	男	I	2012接受除菌 2015PG陽性
2015	75	男	I	2004接受除菌 2015PG陽性
2015	52	男	I	2008接受除菌 2015PG陰性
2015	59	男	I	2005接受除菌 2015PG陽性
2015	61	M	III	2015PG陽性

年分	年齡	性別	期別	篩檢階段
2016	75	男	III	2004接受除菌 2015PG陰性
2017	65	男	IV	2004、2012、2014吹氣陰性 2015PG陰性
2018	62	男	I	2004接受除菌 2015及2018PG陰性
2018	84	男	III	2004接受除菌
2018	69	男	I	2004接受除菌 2015、2018PG陰性
2020	62	男	I	2012接受除菌 2015PG陰性
2020	73	男	IV	未參加篩檢
2021	35	女	III	2016、2018吹氣陰性 2016PG陰性

黏膜發炎及萎縮回復  
降低PG效果

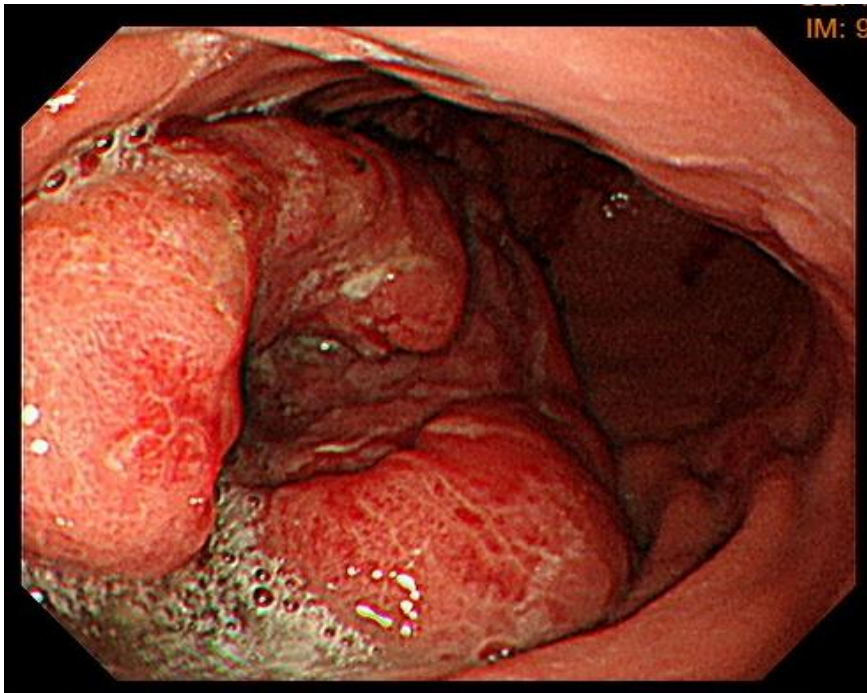
1. 未接受篩檢: 3/19
2. 除菌後仍發生的胃癌: 13/16
3. 胃蛋白酶原陰性: 7/12
4. 幽門桿菌未曾感染過: 3/16

# 幽門桿菌無關的胃癌

## 挑戰3

### 胃痛與腹脹

- 2016與2018年幽門桿菌吹氣檢查皆為陰性
- 2016年胃蛋白酶原檢查也是陰性
- 沒有抽菸喝酒
- 祖母60歲診斷胃癌



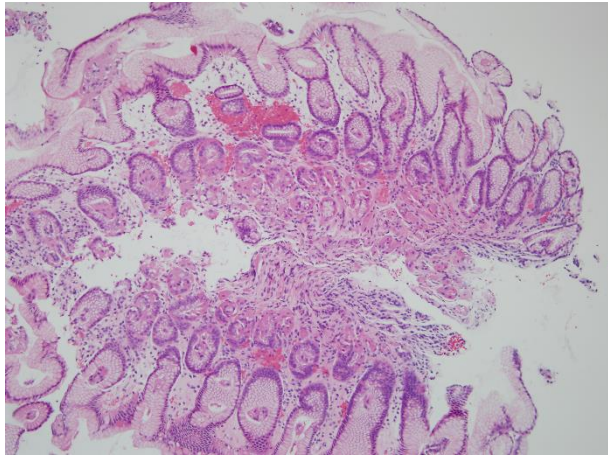
胃鏡發現胃體部有五公分大的腫瘤



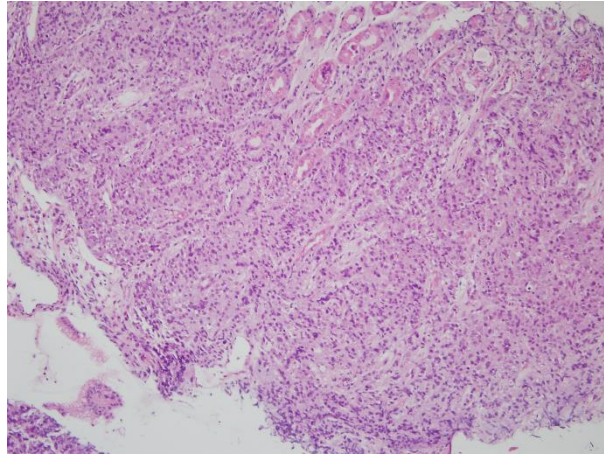
核磁共振發現腹膜與淋巴結大量轉移



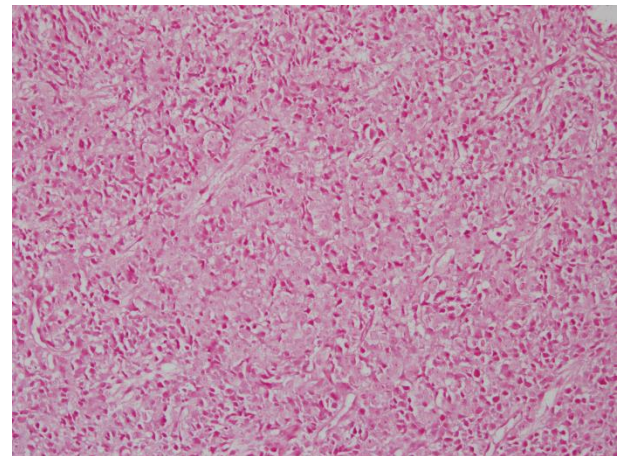
# 病理組織分析



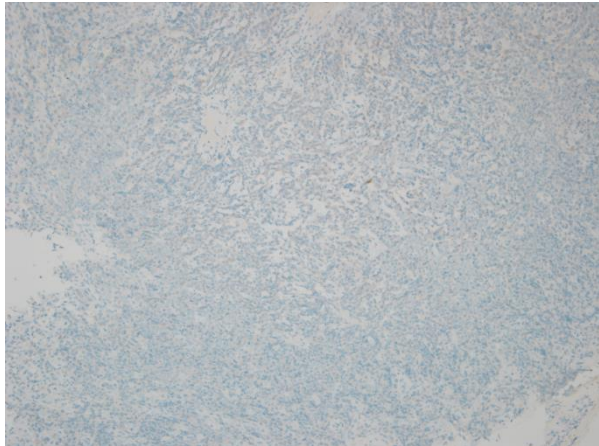
胃黏膜無萎縮



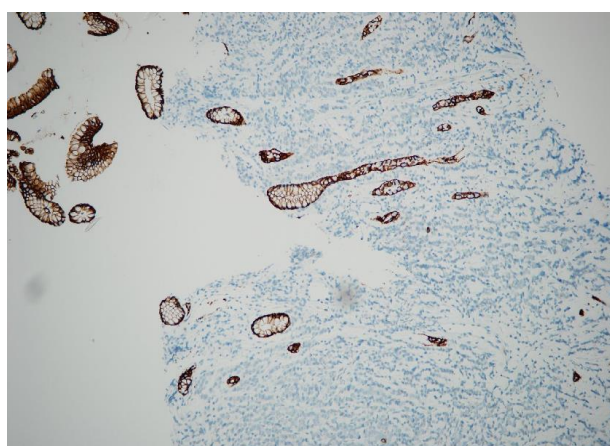
瀰漫性胃癌



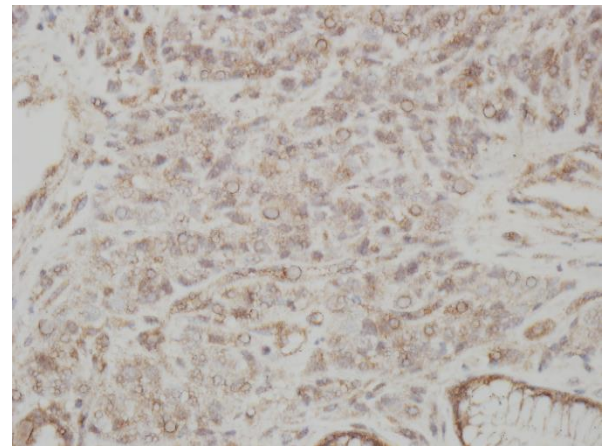
Epstein-Barr 病毒陰性



HER2染色陰性



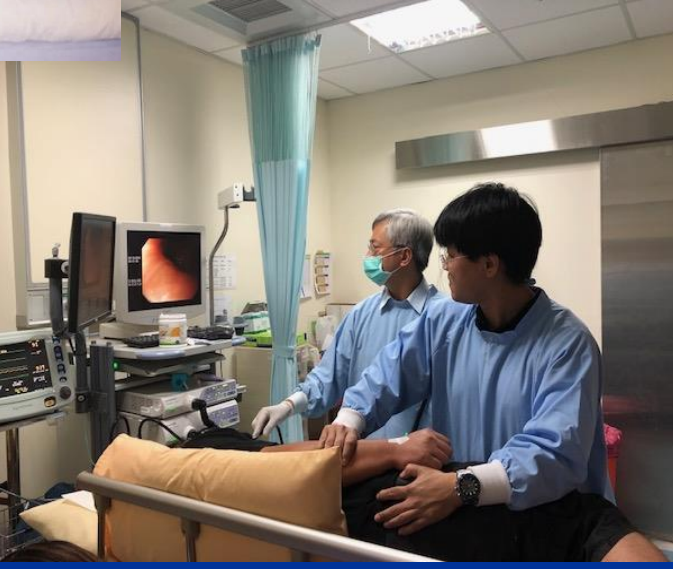
E-Cad/CDH1 loss



PDL-1 (1+)

病患接受化學治療 (oxaliplatin + leucovorin + fluorouracil)

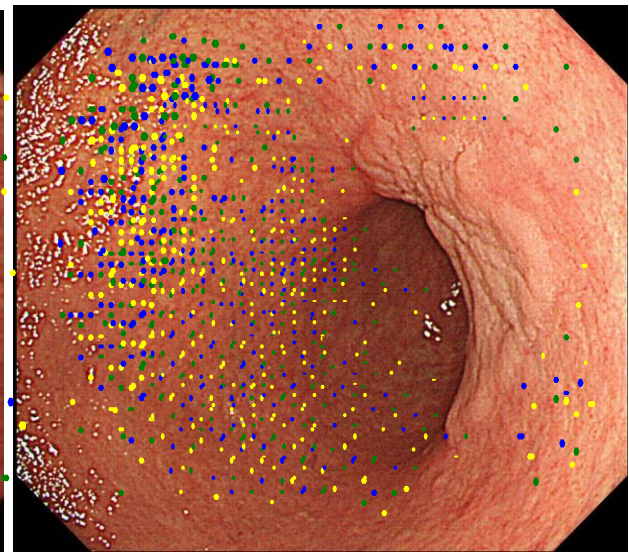
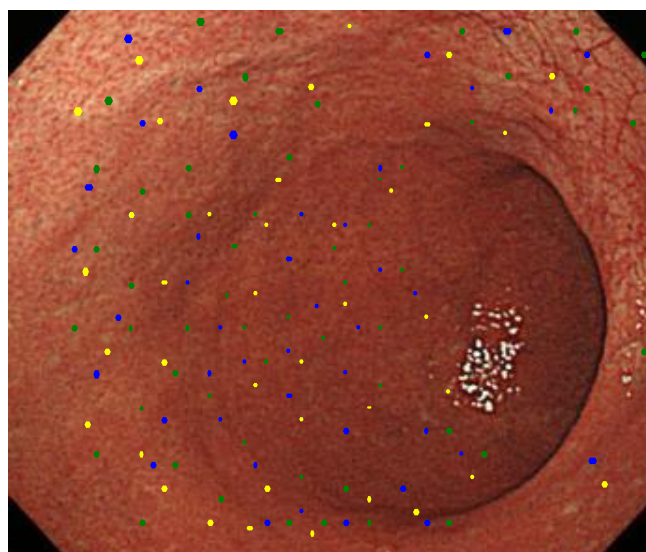




偏鄉需要甚麼？計畫如何永續經營？是否有創新的方法？

未曾感染幽門桿菌

現在或曾經感染幽門桿菌



≈0% / 每年

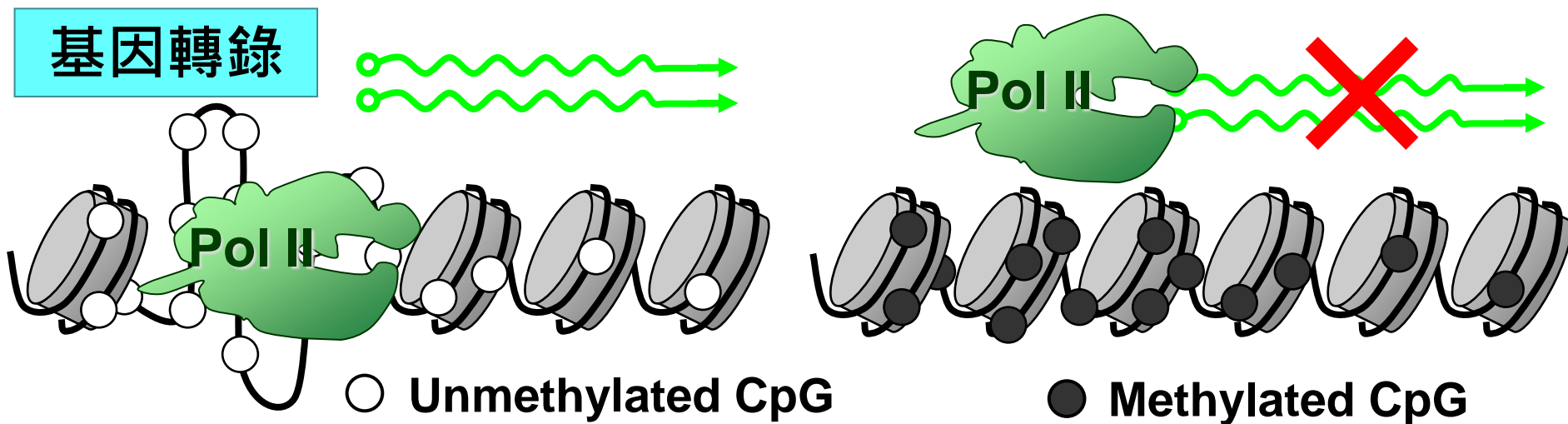
0.1-1.3% / 每年

2.5% / 每年

胃癌發生率

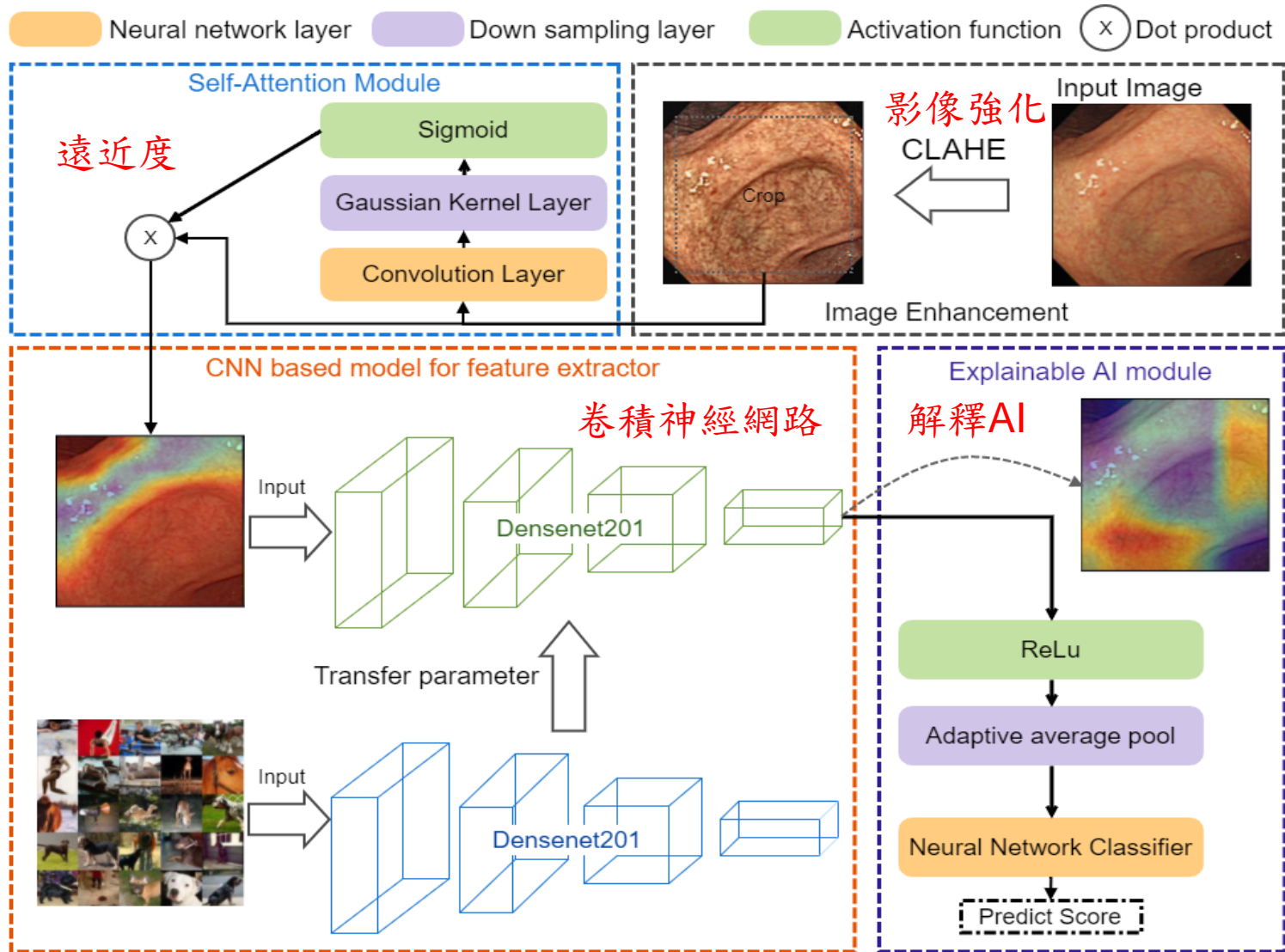
PNAS 2018;115:1328-33

基因轉錄





# 人工智慧協助偏鄉風險分期



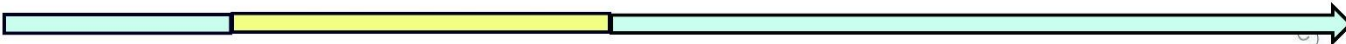
電腦看胃相

台大醫院整合資料庫(NTUH-iMD)與智慧醫療中心(cIntuh)

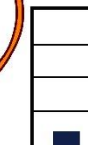
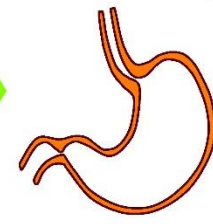
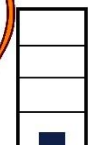
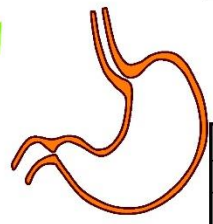
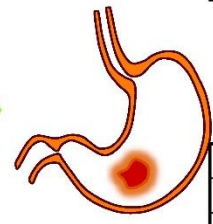
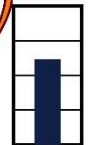
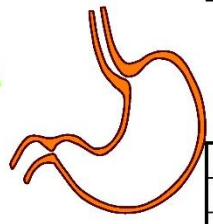
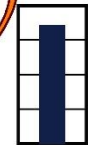
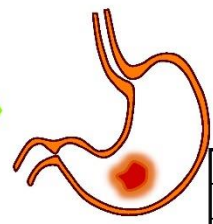
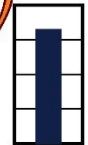
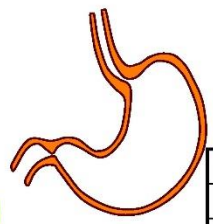
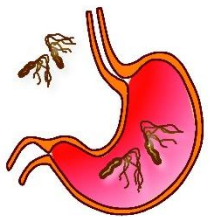
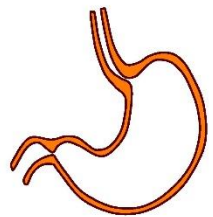


No infection

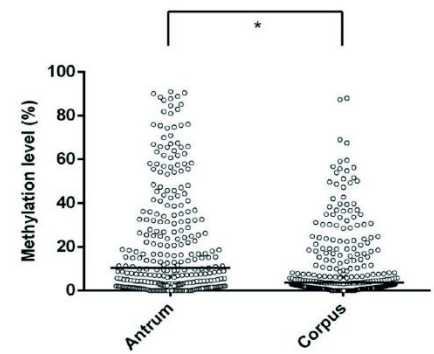
Past infection



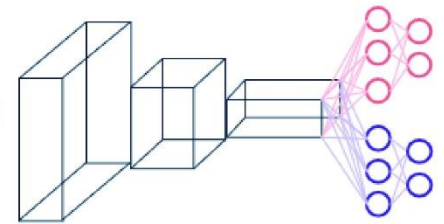
Active infection



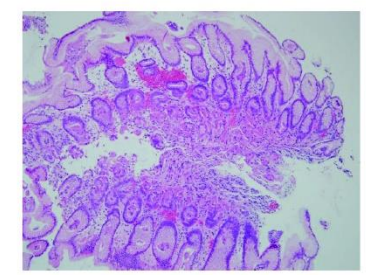
Residual molecular damage



Direct measurement



Artificial intelligence



Histology

No molecular damage

High molecular damage



celebrating  
60  
years  
1962-2022

December 2020 Volume 69 Issue 12

Impact  
Factor  
19.819

# Gut







An International Journal of  
Gastroenterology  
and Hepatology



Gut. 2020;69:2093-112

Guidelines

## Screening and eradication of *Helicobacter pylori* for gastric cancer prevention: the Taipei global consensus

Jyh-Ming Liou <sup>1,2,3</sup> Peter Malfertheiner,<sup>4,5</sup> Yi-Chia Lee <sup>1,2,6</sup>  
Bor-Shyang Sheu <sup>7,8</sup> Kentaro Sugano,<sup>9</sup> Hsiu-Chi Cheng,<sup>7,10</sup> Khay-Guan Yeoh <sup>11</sup>  
Ping-I Hsu,<sup>12</sup> Khean-Lee Goh,<sup>13</sup> Varocha Mahachai,<sup>14</sup> Takuji Gotoda <sup>15</sup>  
Wei-Lun Chang,<sup>7</sup> Mei-Jyh Chen,<sup>1,2,16</sup> Tsung-Hsien Chiang,<sup>1,2,16</sup> Chieh-Chang Chen,<sup>1,2</sup>  
Chun-Ying Wu <sup>17,18</sup> Alex Hwong-Ruey Leow,<sup>13</sup> Jeng-Yih Wu,<sup>8</sup> Deng-Chyang Wu,<sup>8</sup>

# 謝謝大家的聆聽

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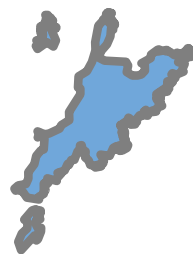
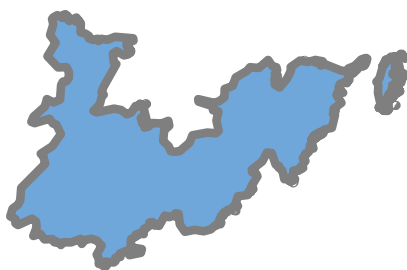
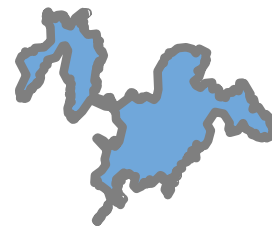
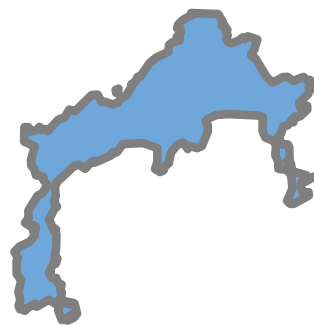
### ABSTRACT

**Objective** A global consensus meeting was held to review current evidence and knowledge gaps and propose collaborative studies on population-wide

### INTRODUCTION

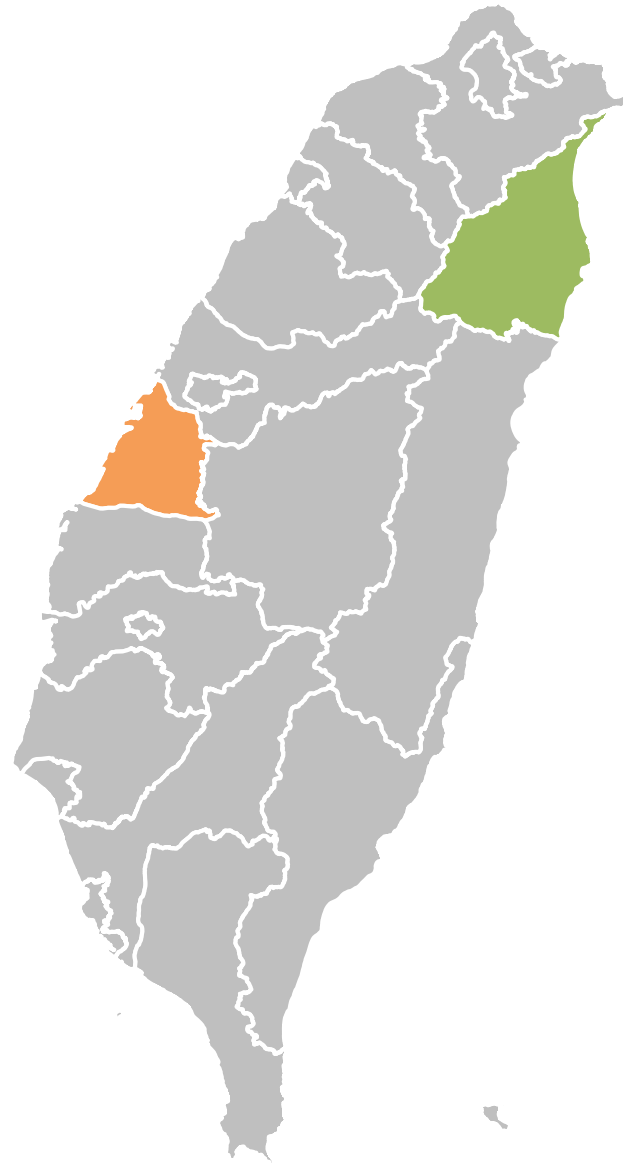
Despite a recent decline in incidence, gastric cancer remains one of the leading causes of cancer death worldwide.<sup>1</sup> The major breakthrough in research on

馬祖（南竿、北竿、  
東莒、西莒、東引）

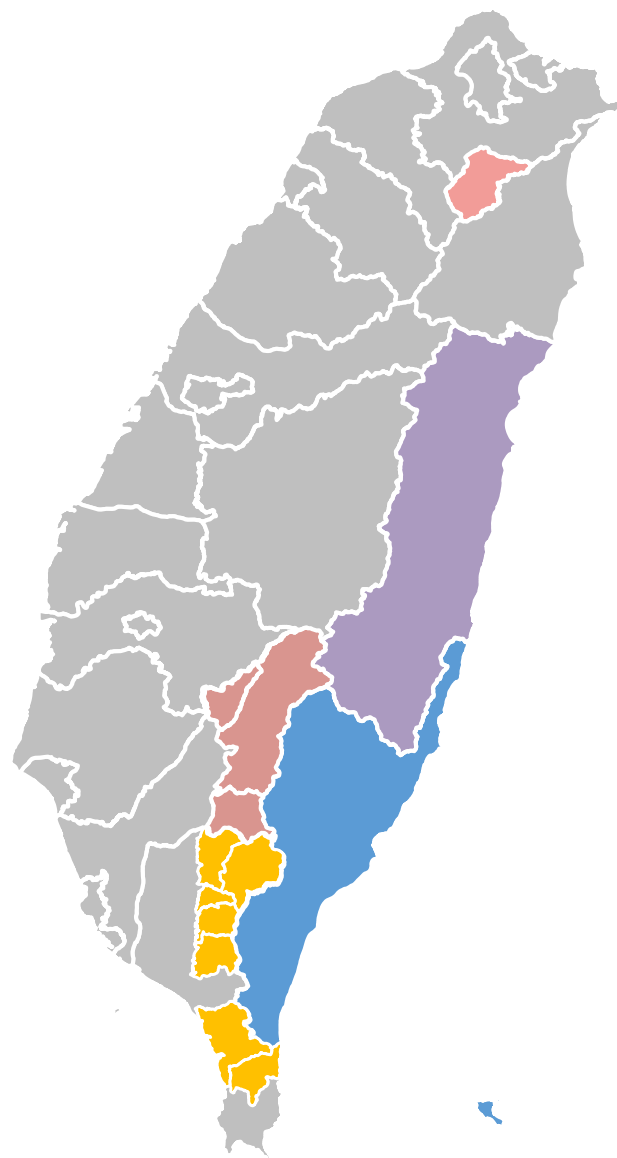




1. 彰化
2. 宜蘭

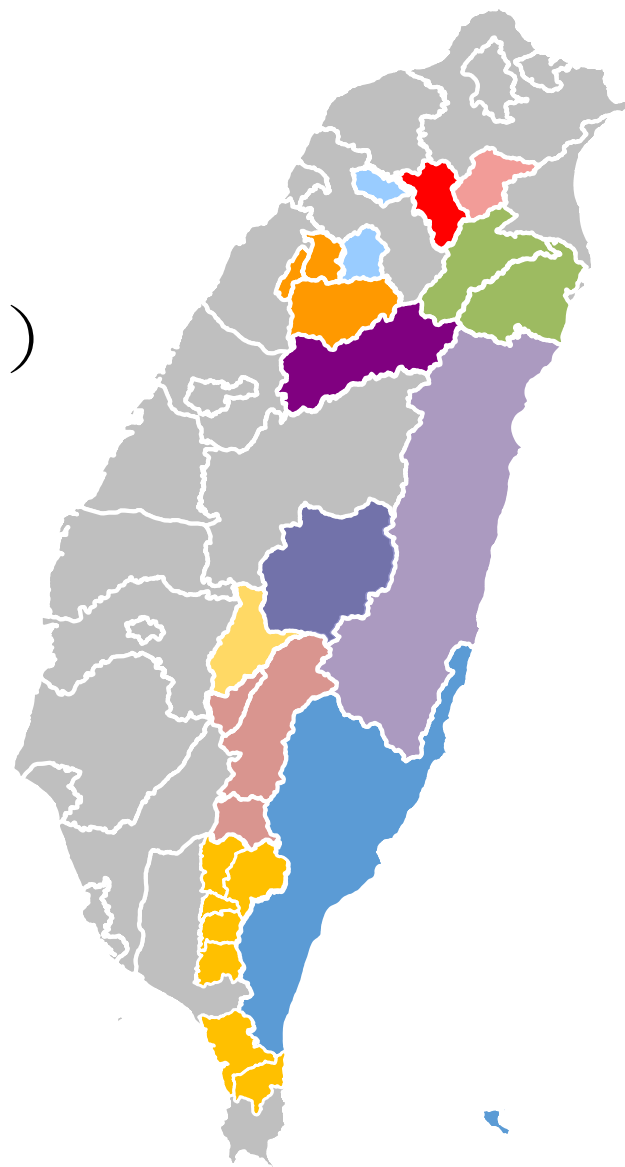


1. 臺東
2. 花蓮
3. 新北（烏來）
4. 高雄（納馬夏、桃源、茂林）
5. 屏東（三地門、霧台鄉、瑪家鄉、泰武鄉、來義鄉、獅子鄉、牡丹鄉）





1. 宜蘭 (南澳50、大同50)
2. 新北 (烏來200)
3. 桃園 (復興50)
4. 新竹 (關西50、五峰50)
5. 苗栗 (南庄50、獅潭50、泰安50)
6. 臺中 (和平50)
7. 南投 (信義50)
8. 嘉義 (阿里山50)
9. 高雄 (納馬夏50、桃源50)
10. 屏東 (除滿州外，8鄉鎮560)
11. 臺東 1500
12. 花蓮 1400



1. 宜蘭 (南澳50、大同50)
2. 新北 (烏來200)
3. 桃園 (復興50)
4. 新竹 (關西50、五峰50)
5. 苗栗 (南庄50、獅潭50、泰安50)
6. 臺中 (和平50)
7. 南投 (信義50)
8. 嘉義 (阿里山50)
9. 高雄 (納馬夏50、桃源50)
10. 屏東 (除滿州外，8鄉鎮560)
11. 臺東 1500
12. 花蓮 1400
13. 彰化

