

Healthline – doing its share for primary care

Lesley Clarke

General Manager

Ian St George

Medical Director

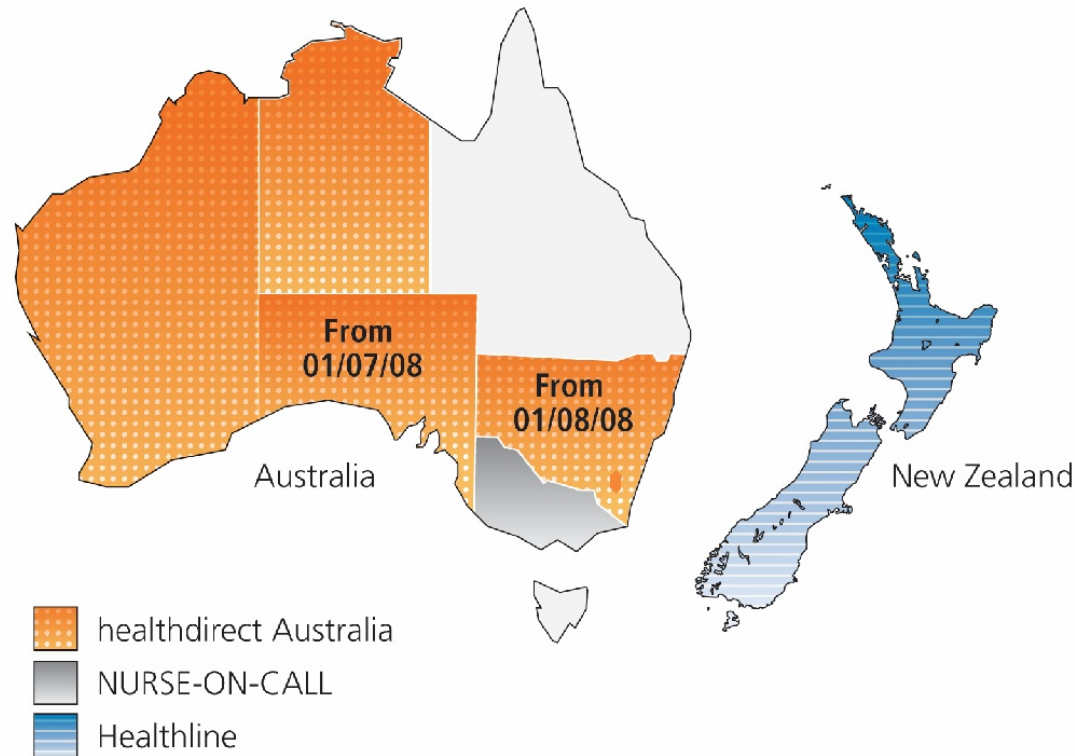
Janet Harp

Senior Nurse Adviser

McKesson New Zealand



Telephone triage – our core business



Assures consistent, quality advice and recommendations for patients with health concerns with the aim of directing the caller to the most appropriate health care provider

Free health advice
when you need it


Healthline
0800 611 116
www.healthline.govt.nz

Healthline – overview

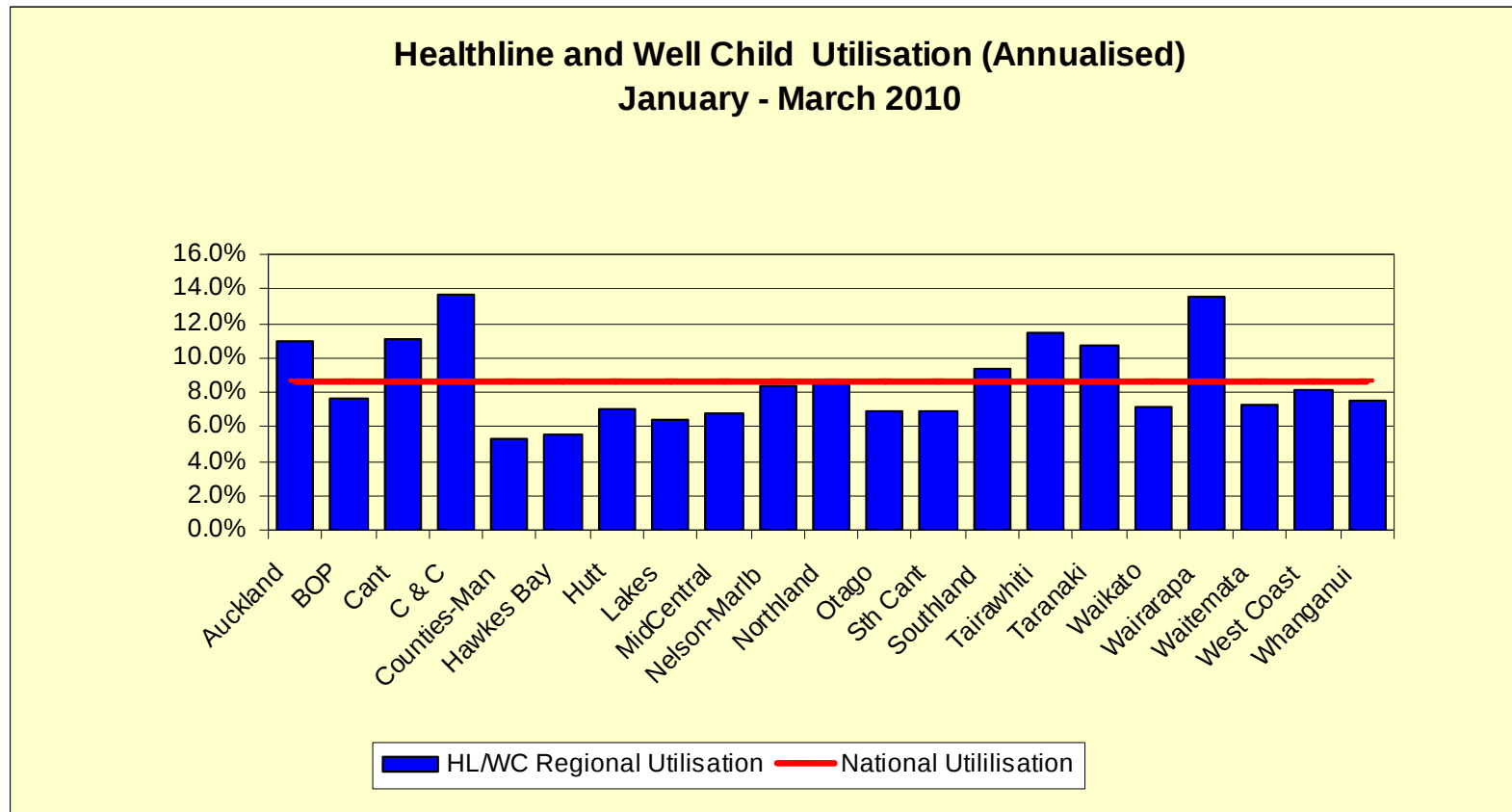
- Nurse led service
- 24x7 nationwide
- Funded by Ministry of Health
- Incorporates the Well Child Telephone Advice service
- Provides free access for people seeking:
 - Symptom assessment
 - General health information
 - Provider information
 - Well Child advice



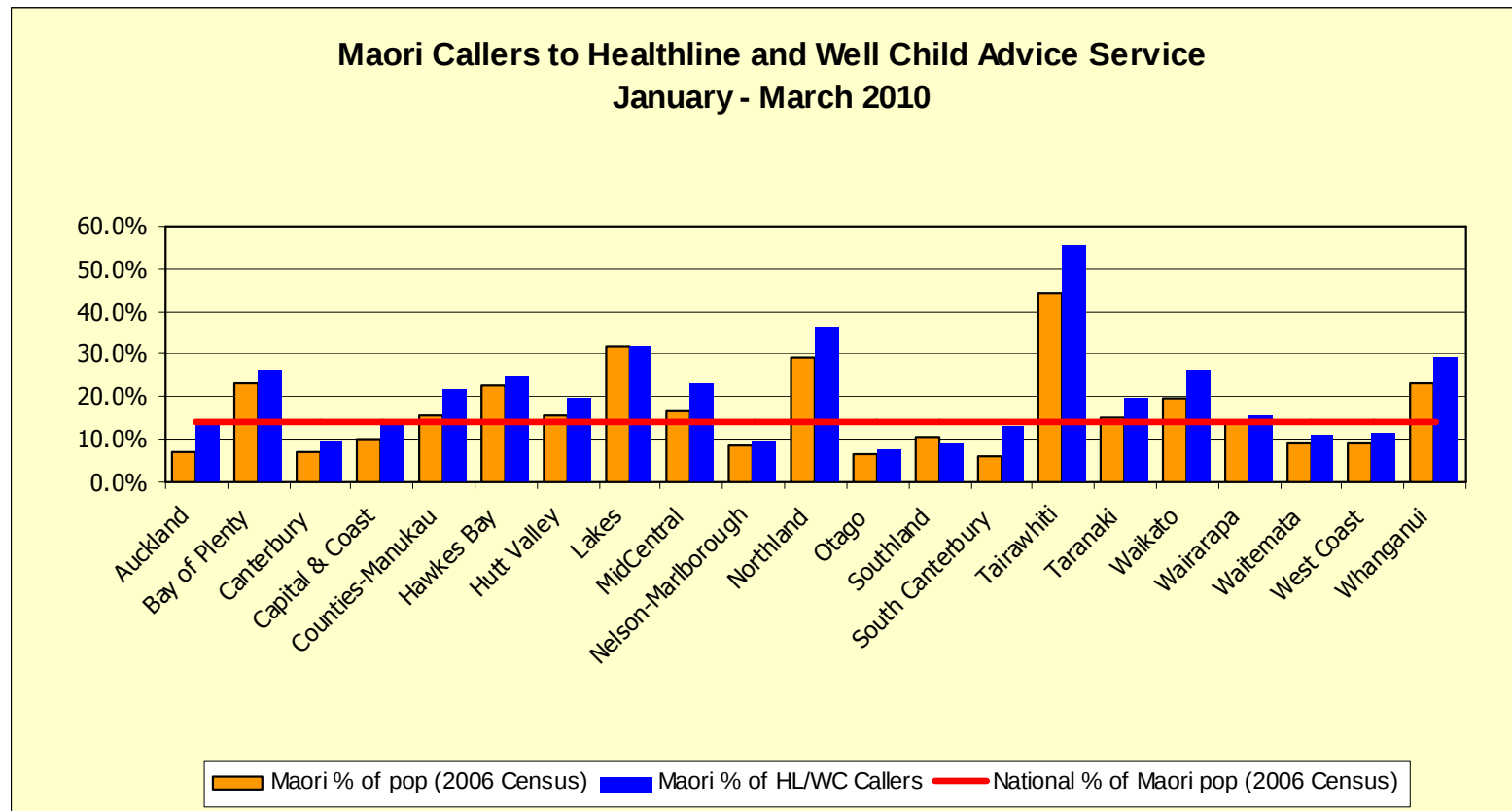
Care Enhance Call Centre software

- CeCC a clinically rigorous Triage System developed and owned by McKesson.
- The 413 guidelines in CeCC are evidence-based and peer reviewed with continued clinician feedback
- CeCC is designed to help the nurse prioritise multiple symptoms and select the appropriate guideline to complete the assessment
- The disposition is congruent with the presenting problem and the available services
- All calls are captured in CeCC as a unique call record and voice recorded for quality purposes

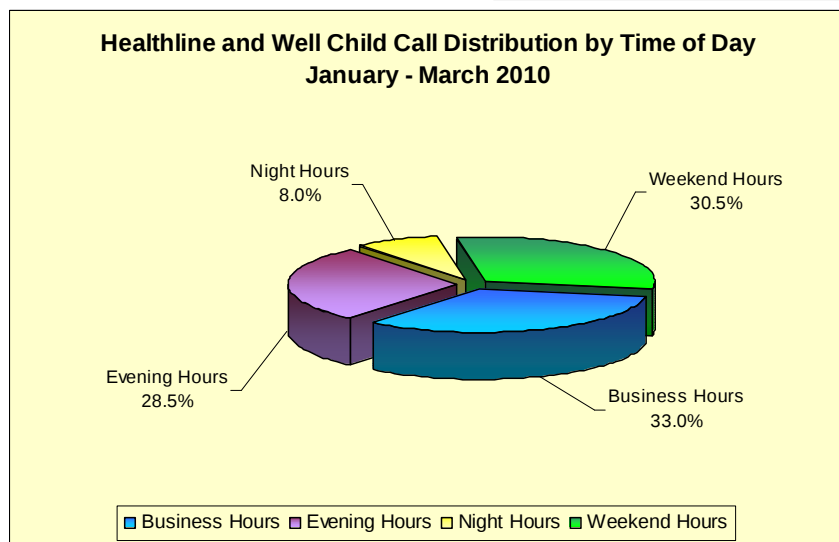
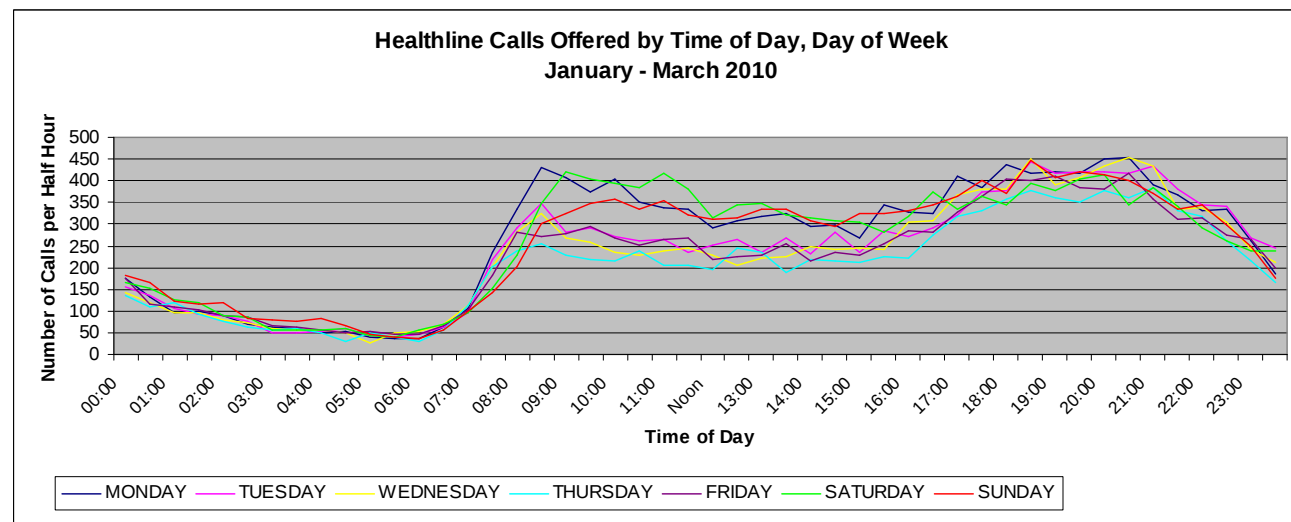
Utilisation



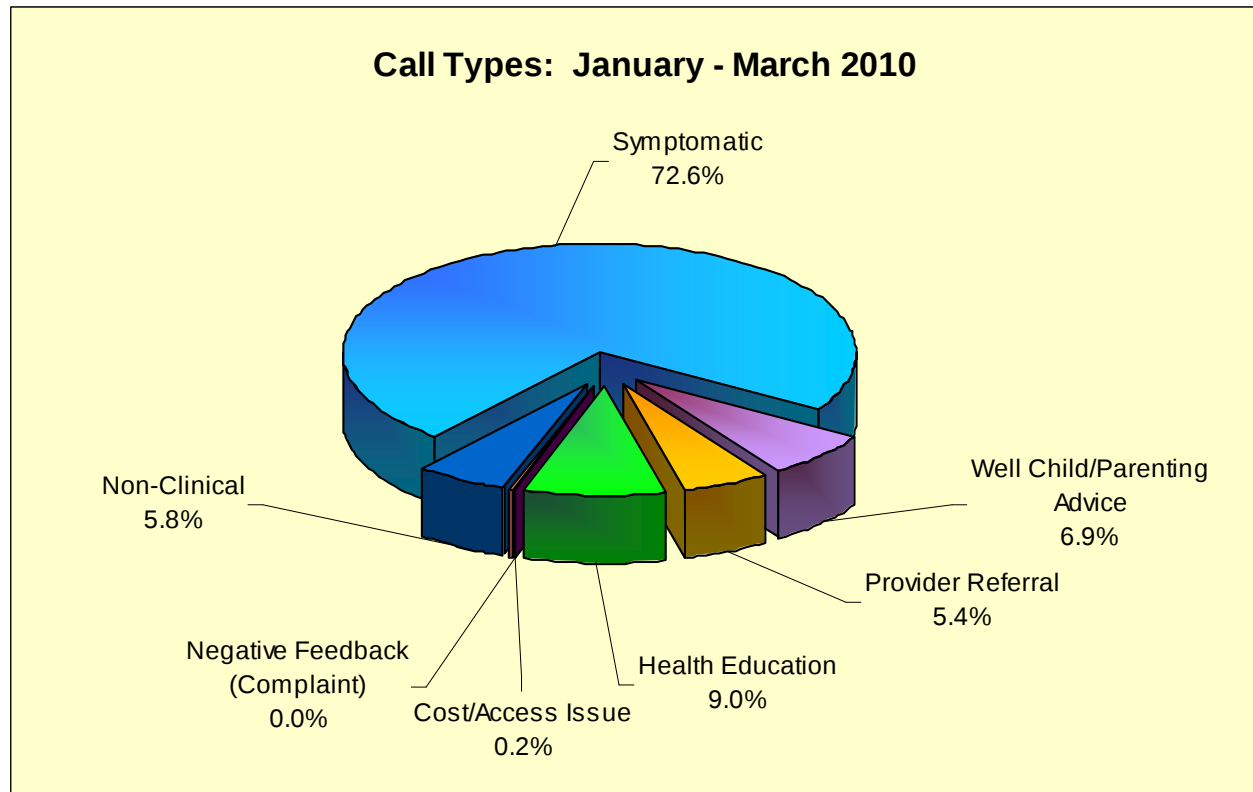
Māori utilisation



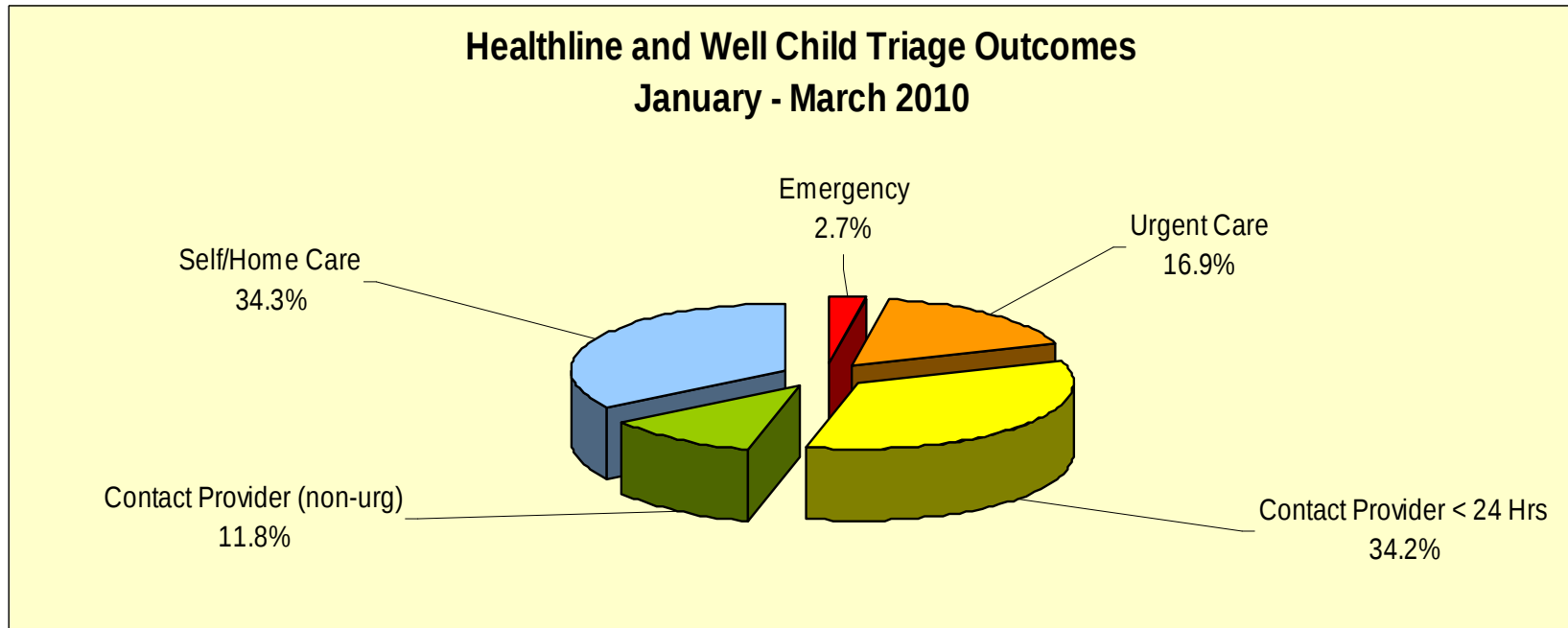
Time of day



Call types



Outcomes of symptomatic calls



Most frequent symptomatic calls

Guideline*	%
Vomiting (Paediatric)	4.0%
Abdominal Pain / Discomfort	3.0%
Seen Doctor/Health Care Provider	2.8%
Fever (Paediatric)	2.8%
Diarrhoea (Paediatric)	2.8%
Medication Question Encounters	2.5%
Rashes, Widespread, Cause Unknown (Paediatric)	2.5%
Colds (Paediatric)	2.2%
Seen Doctor/Health Care Provider Paediatric	1.7%
Chest Pain / Discomfort	1.6%
Nausea / Vomiting	1.6%
Headache	1.6%
Immunisation Reactions (Paediatric)	1.5%
Cough (Paediatric)	1.5%
Diarrhoea / Change in Bowel Habits	1.5%
Trauma - Head (Paediatric)	1.4%
Vaginal Bleeding (Premenopausal) -- Abnormal	1.4%
Bites and Stings - Insects / Spiders	1.4%
Poisoning - Ingestion (Paediatric)	1.2%
Rash / Hives / Eruptions	1.1%
Total Top 20 Accesses	40.2%

Most frequent symptomatic calls - pandemic

Guideline*	%
Flu-Like Symptoms;Known/Suspected Influenza	6.0%
Vomiting (Paediatric)	4.8%
Cough (Paediatric)	3.4%
Colds (Paediatric)	3.0%
Diarrhoea (Paediatric)	2.8%
Abdominal Pain / Discomfort	2.4%
Fever (Paediatric)	2.3%
Medication Question Encounters	2.2%
Influenza (Paediatric)	2.1%
Influenza [Swine]	1.9%
Seen Doctor/Health Care Provider	1.8%
Rashes, Widespread, Cause Unknown (Paediatric)	1.7%
Seen Doctor/Health Care Provider Paediatric	1.7%
Nausea / Vomiting	1.6%
Chest Pain / Discomfort	1.5%
Diarrhoea / Change in Bowel Habits	1.5%
Headache	1.5%
Cough - Adult	1.4%
Upper Respiratory Tract Infections / Colds	1.3%
Sore Throat / Hoarseness	1.3%
Total Top 20 Accesses	46.2%

Most frequent information calls

Most Frequently-Accessed HIL Topics: Healthline	%
Temperature Fever Self Care	7.5%
Risk Of Lower Infant	4.2%
Temperature Range And Thermometers	3.6%
Chickenpox	3.3%
Constipation Infants Toddlers	2.2%
Hand Foot And Mouth Disease	1.9%
Diarrhoea Selfcare	1.9%
Vomiting Selfcare	1.6%
Pregnancy Tests.	1.3%
Emergency Contraception	1.3%
School Exclusion	1.2%
Tetanus.	1.1%
Cough Flu Self Cares	1.0%
Scabies.	1.0%
Depo Provera	0.8%
Giving Oral Medication	0.8%
Colds	0.8%
Herpes Zoster And Herpes Zoster In Pregnancy (Shingles)	0.8%
Measles.	0.7%
Combined Oral Contraceptive Pill	0.7%
Top 20% of total	37.6%

Most frequent information calls - pandemic

Most Frequently-Accessed HIL Topics: Healthline	%
Swine Flu H1N1 influenza	10.9%
Temperature fever Self Care	8.5%
Swine Flu in USA and Mexico Travellers Advice	7.1%
Temperature Range and Thermometers	3.4%
Tamiflu	3.2%
Chickenpox	2.9%
Risk of lower intent	2.7%
Novel Influenza A H1N1 [Swine flu]	2.6%
Constipation Infants Toddlers	2.1%
Vomiting selfcare	2.1%
Diarrhoea selfcare	1.9%
Cough Flu Self Cares	1.9%
Ministry of Education Swine Influenza Update	1.5%
Colds	1.4%
Pregnancy tests.	0.9%
School Exclusion	0.9%
Influenza A [H1N1] Advice for Health Professionals	0.9%
Emergency Contraception	0.9%
Croup	0.9%
Scabies.	0.8%
Top 20% of total	57.5%

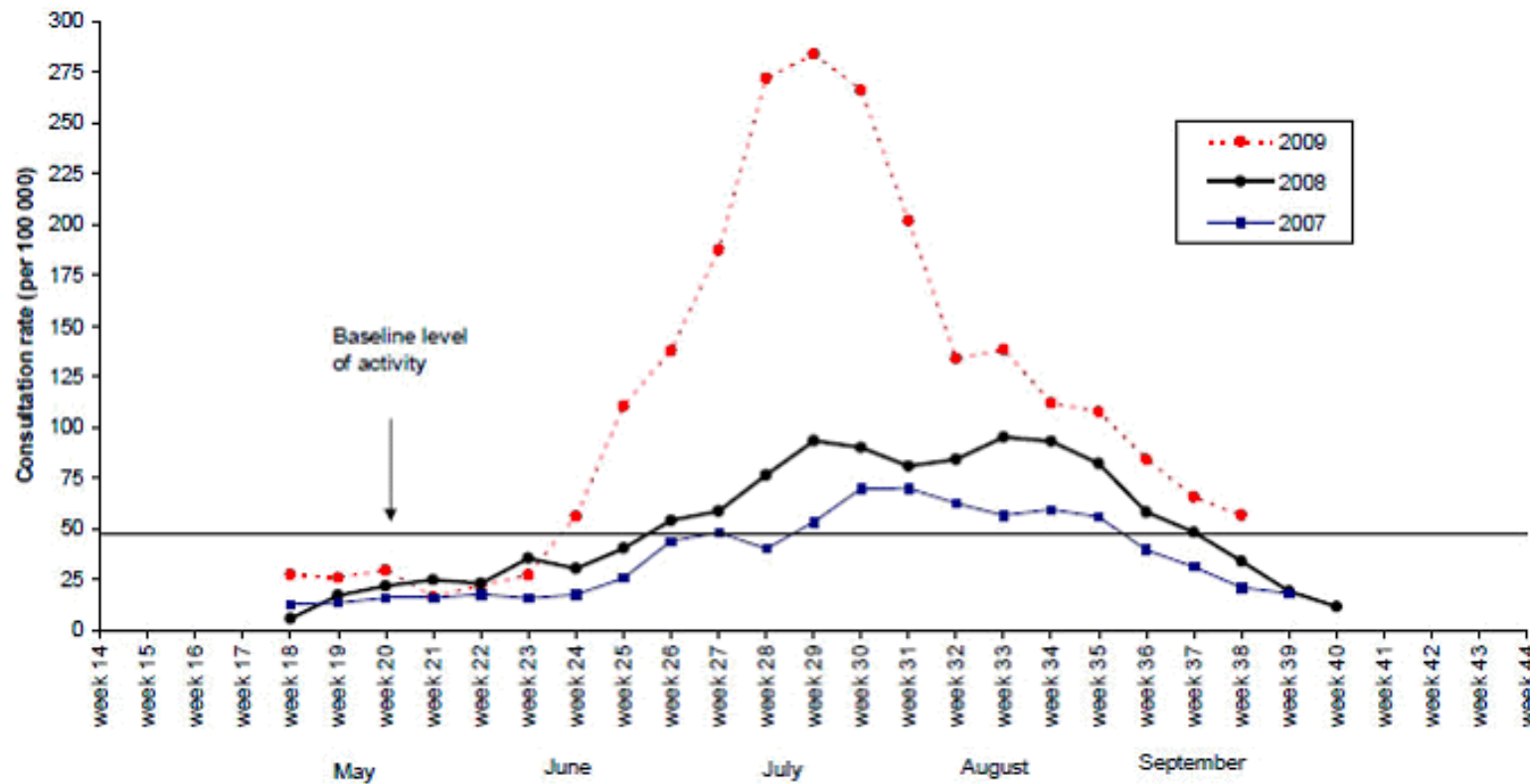
Doing its share: H1N1 pandemic

H1N1 pandemic timeline

- *26 April* News: 10 students returning from Mexico have tested positive for swine flu.
- *27 April* Code Yellow: Ministry of Health begins containment activities. People who had travelled to Mexico or the US in the last fortnight advised to contact Healthline generating a 60% increase in calls.
- *30 April* NZ has 16 confirmed cases, 104 suspected and 111 isolated.
- *13 June* Two confirmed cases with no links to travel indicate community transmission. Containment strategies continued. General public advised to ring Healthline for information and health advice.
- *16 June* Increasing number of school closures. People advised to stay at home if unwell and phone Healthline or General Practitioner.
- *19 June* community transmission widespread in Auckland, Wellington and Christchurch.
- *4 July* First 3 NZ deaths associated with swine flu. Calls to Healthline peak on 6 July with 3,622 calls offered.
- *31 August* 17 deaths
- *30 September* 18 deaths



GP consultations during the pandemic



STOP THE FLU



Sick? Stay home

Cover coughs and sneezes

Wash and dry your hands

Free health advice
when you need it



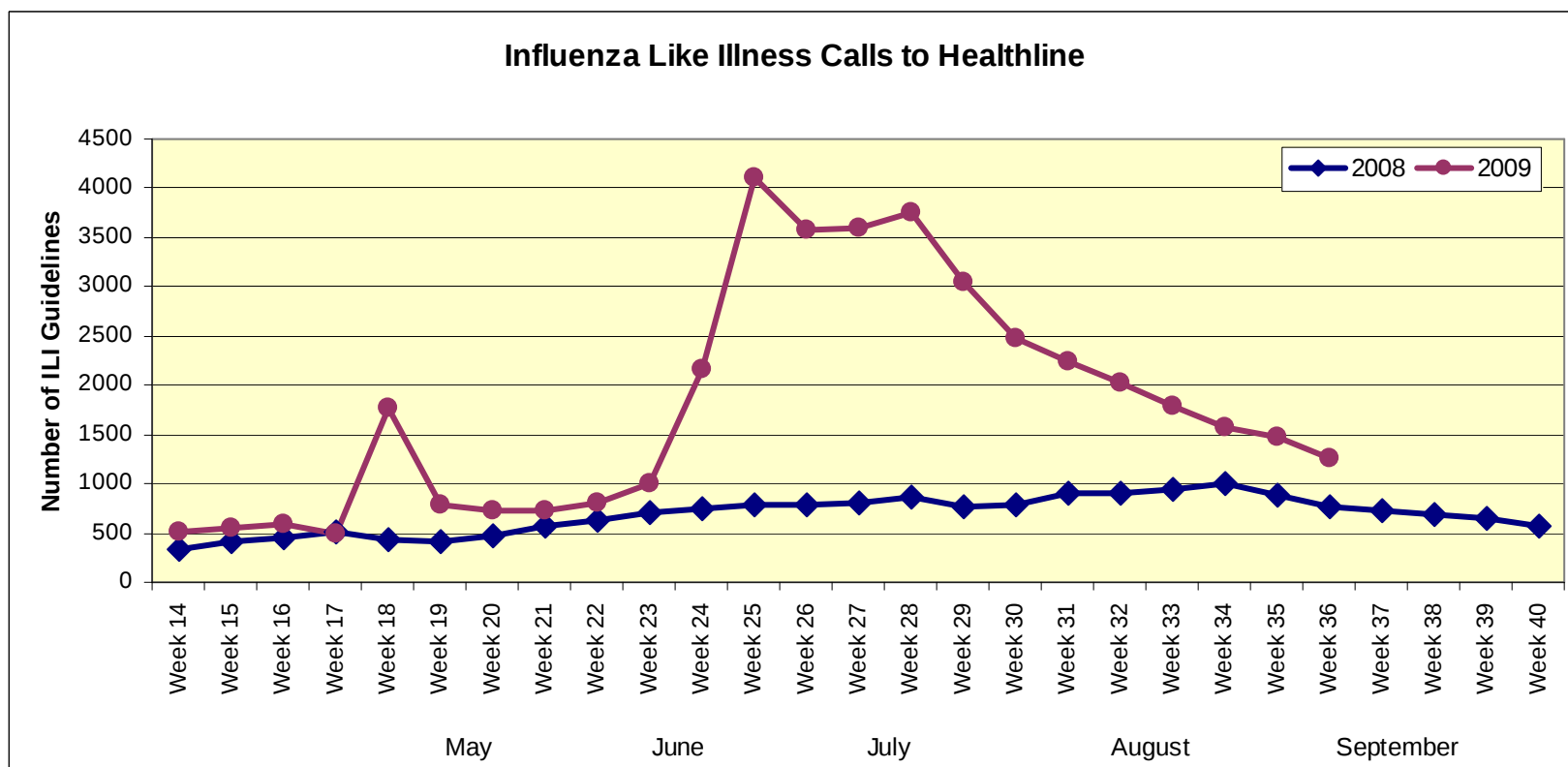
Healthline
0800 611 116



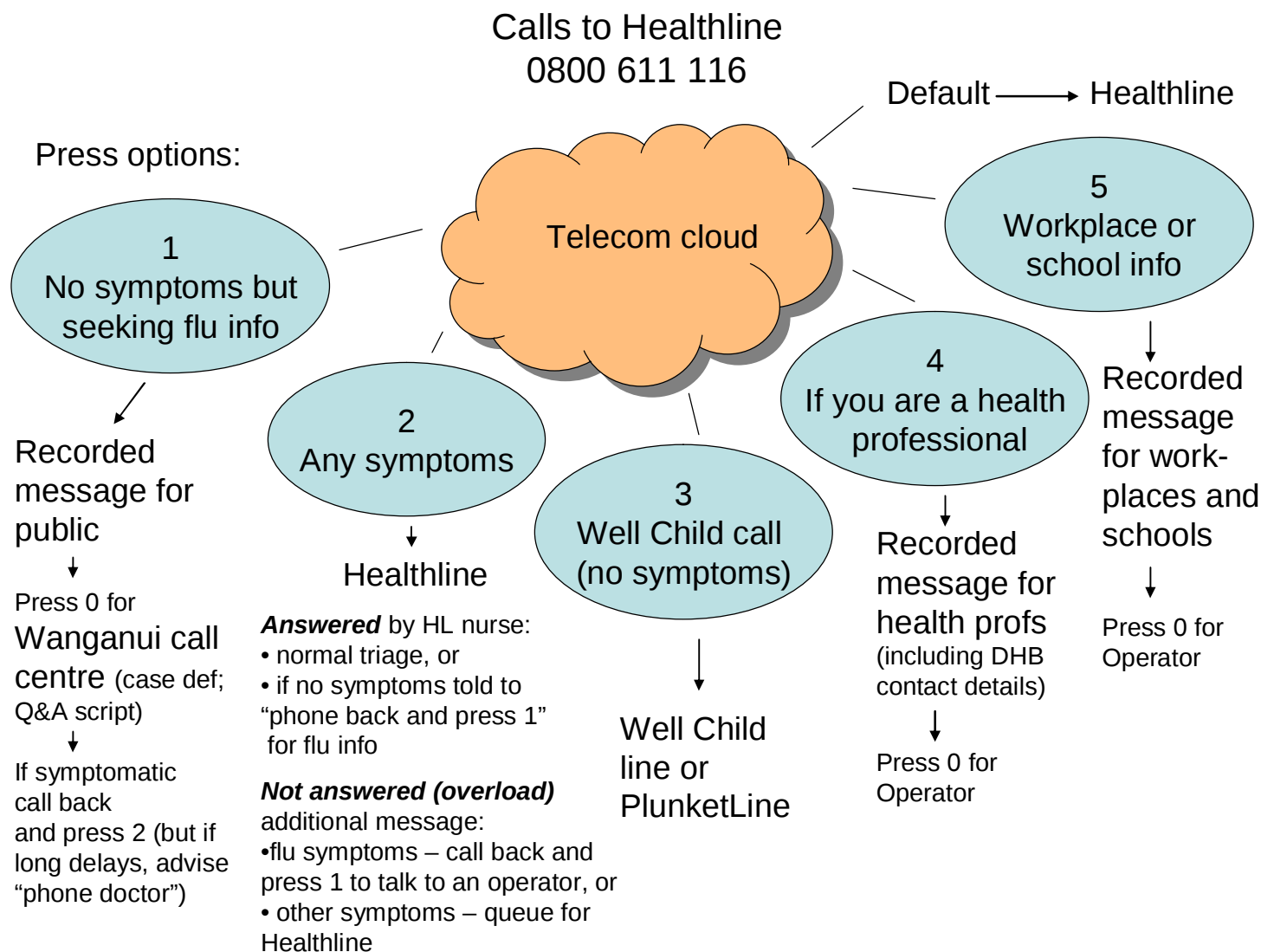
New Zealand Government

APN

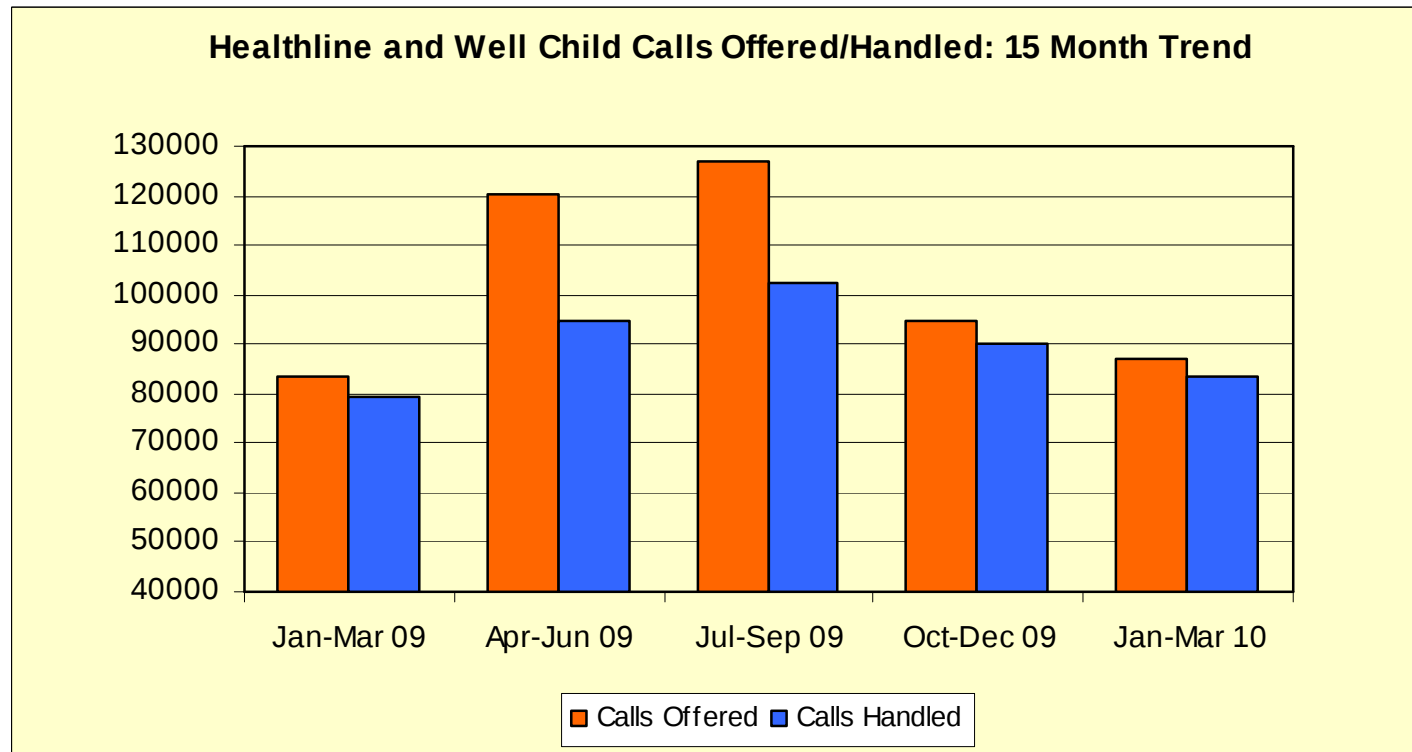
HL calls during the pandemic



Call flow

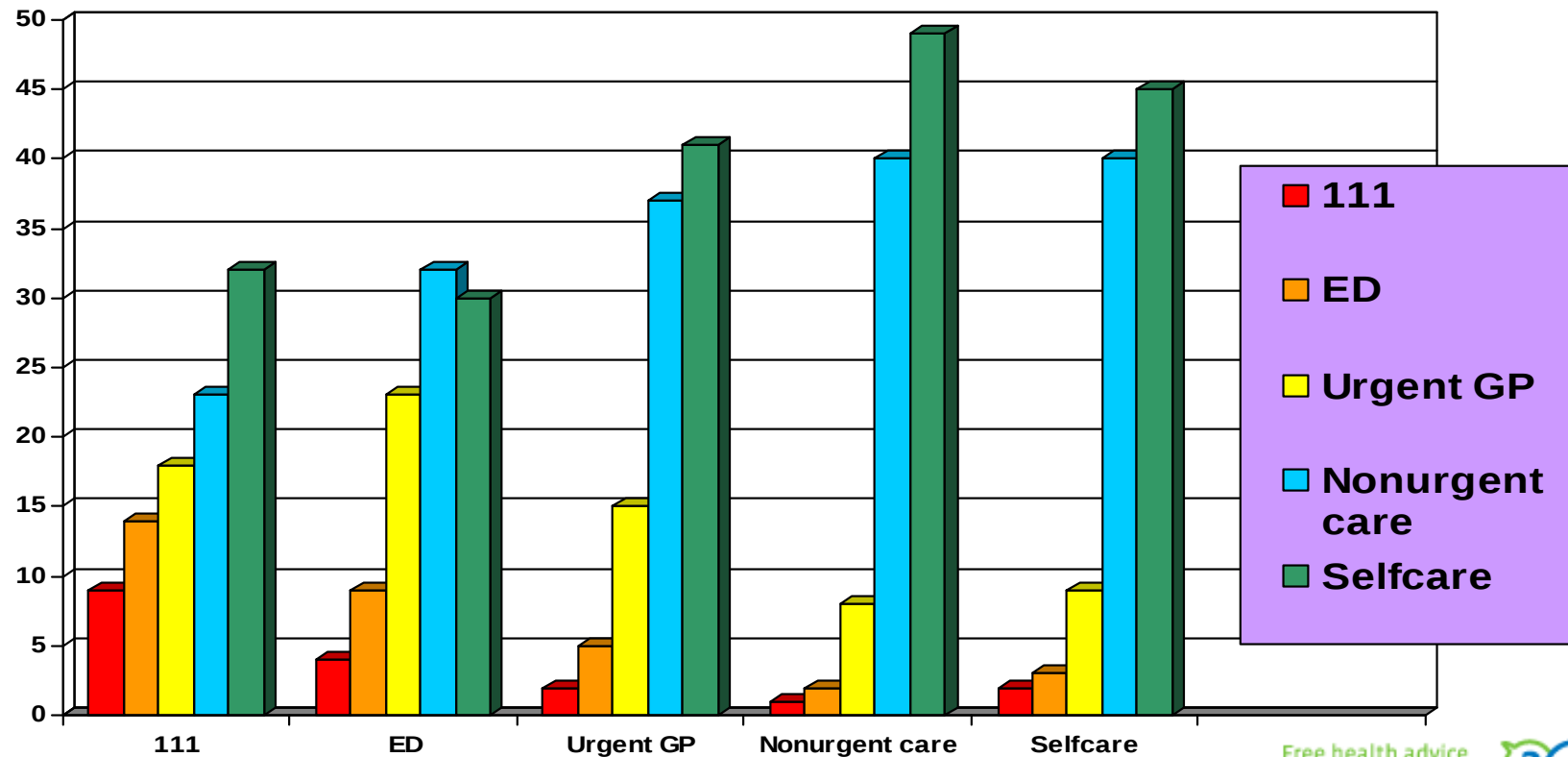


Call numbers



Doing its share:
right care, right time,
right place

People with symptoms may need advice on the right place and the right time to seek care: 100 callers intending (A) were triaged to...



A

Effect on an urban ED

Transferring ED calls to Healthline did not decrease the number of presentations to Christchurch Emergency Department, but did decrease the number of phone callers seeking advice, to the extent that one fulltime nurse was freed for other duties

-- Graber DJ, O'Donovan P, Ardagh MW, St George IM.
NZ Med.J. 2003. 116 (1177): 495-501).



Effect on a rural practice

Telephone triage reduced out-of-hours work for country doctors

- Fewer phone calls
- Probably fewer patients to see
- Safe and reliable

-- St George IM, Cullen M, Branney M, Hogan M, Duncan L.
NZ Family Physician, 2003. 30: 95-99.



Do primary care doctors agree with our advice?

- Three primary care specialists examined 90 calls – blind to HL endpoint
- Endpoints advised by the three doctors varied: crude percentage agreement between the highest and lowest was only 51% (Cohen's K 0.43)
- We compared the *median* doctor- advised endpoint for each case with the endpoints reached by the Healthline nurses: crude percentage agreement was 70% (Cohen's K = 0.78)
- Cohen's Kappa 0.61 - 0.80 = Substantial Agreement

-- St George IM, Cullen M. Branney M.
Healthline: do primary care doctors agree with the advice?
NZMedJ, 2005; 118 (1224).



Doing its share: improving access

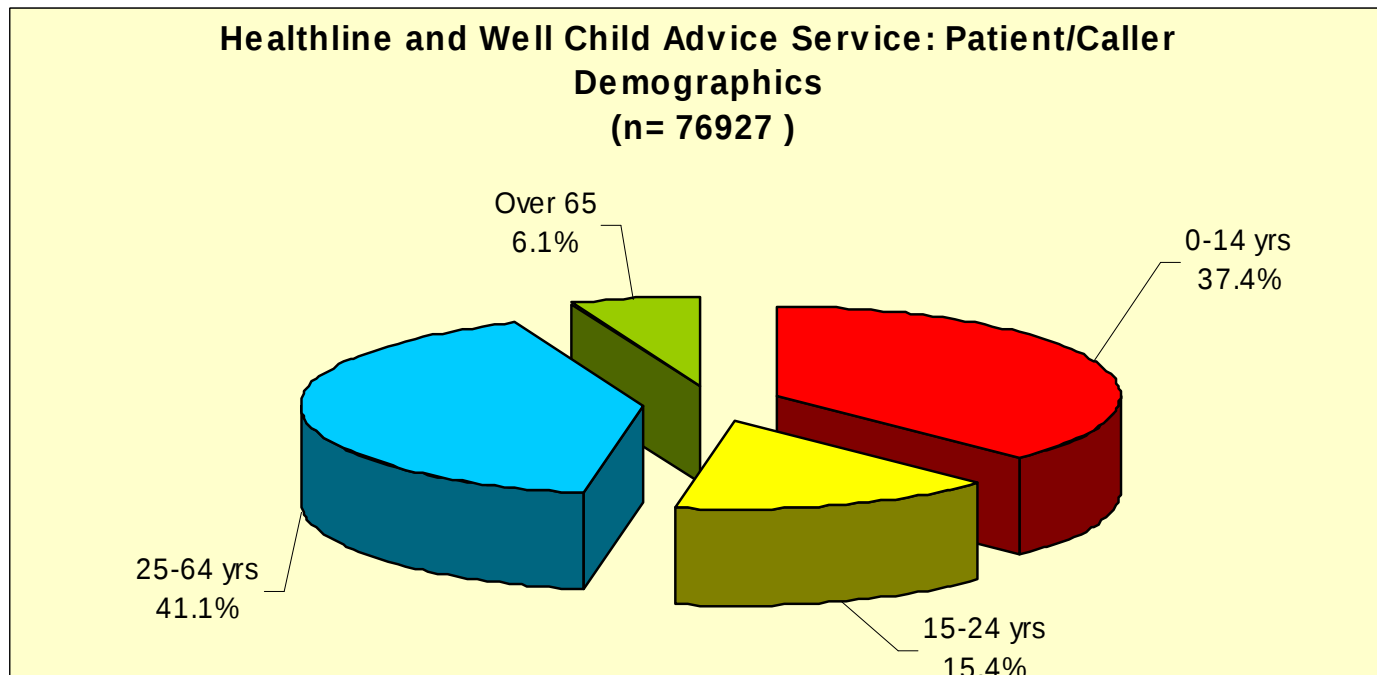
Ethnicity

• NZ European	70.2%*	(75.8)†
• Maori	17.4%	(11.8)
• Samoan	2.8%	(1.8)
• Indian	2.1%	(1.9)
• Chinese	1.0%	(1.8)

* = Healthline 2010

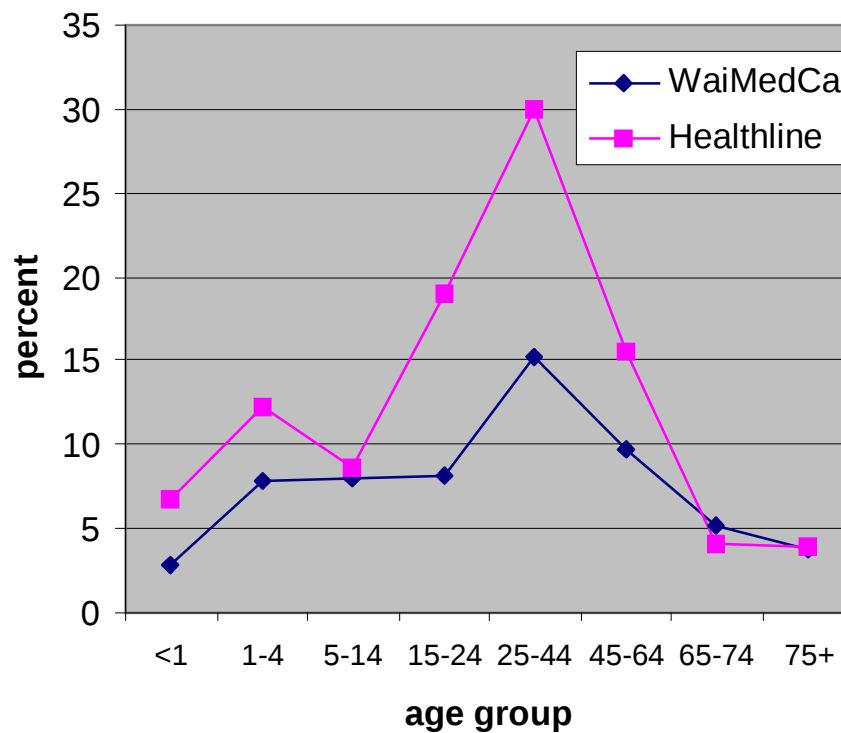
† = National Primary Medical Care (NatMedCa) GP survey 2004

HL use by older people....1

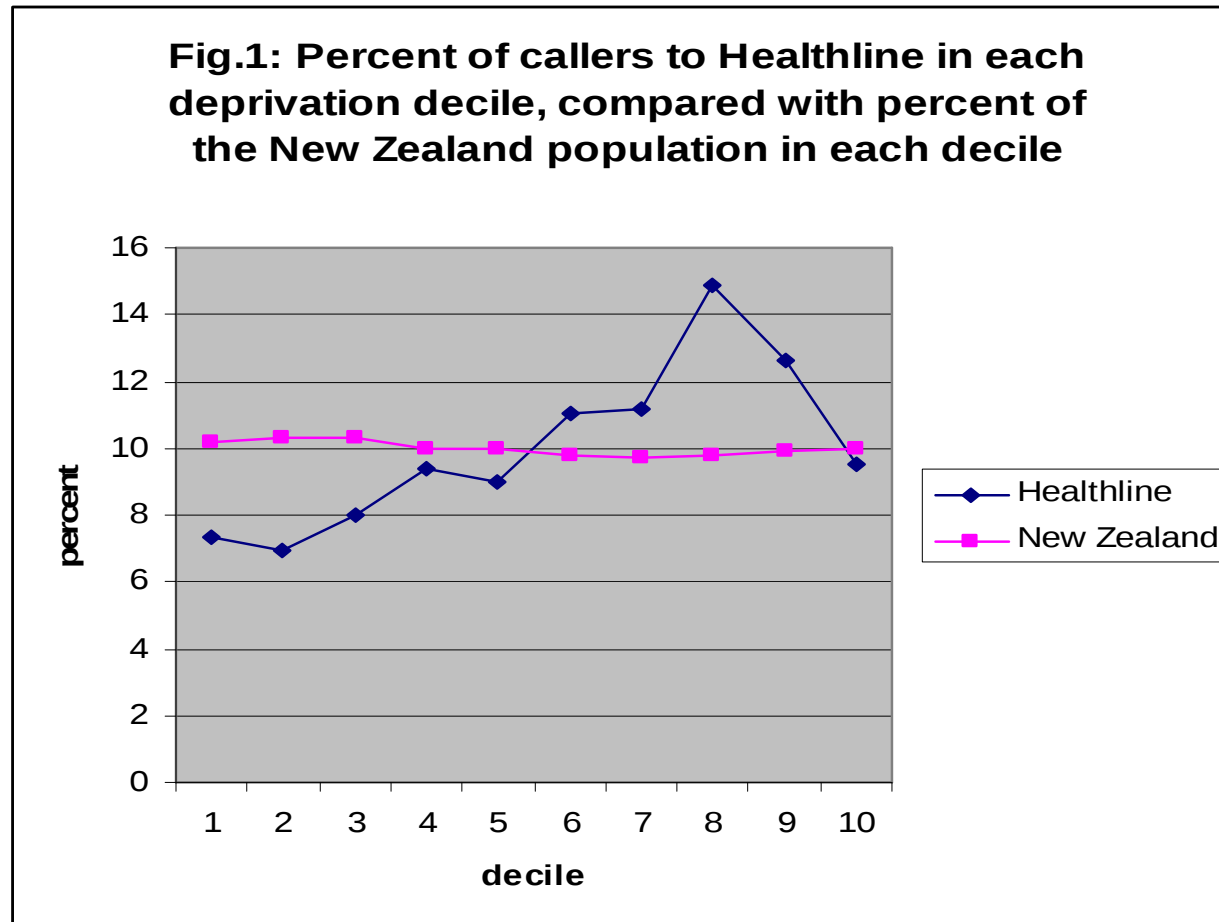


HL use by older people....2

Fig.3: distribution of patient-initiated GP encounters (WaiMedCa) and calls (Healthline) by age group



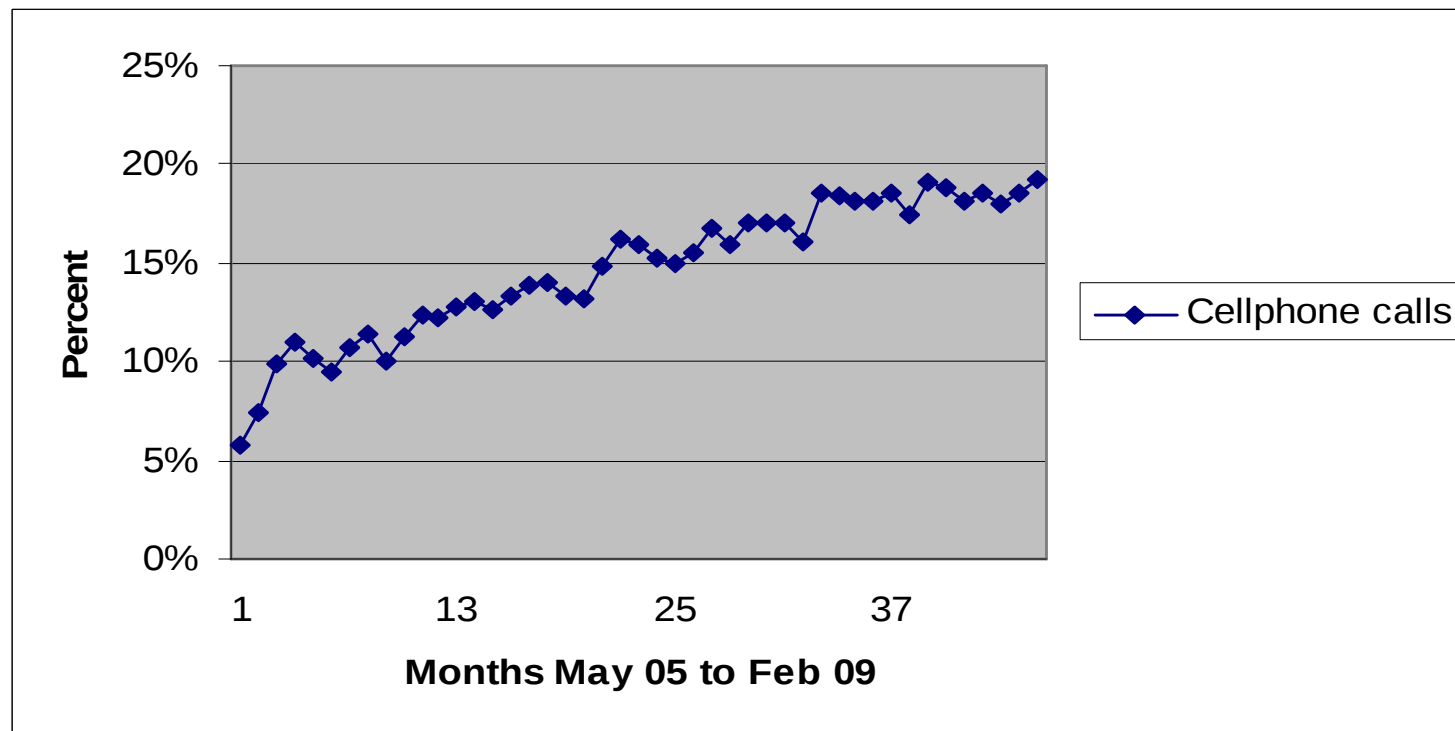
Deprivation levels



-- St George IM, Cullen MJ, Branney M. The deprivation profile and ethnicity of Healthline callers. *NZ Fam Phys* 2006; 33 (6): 386-389.

Cellphone callers

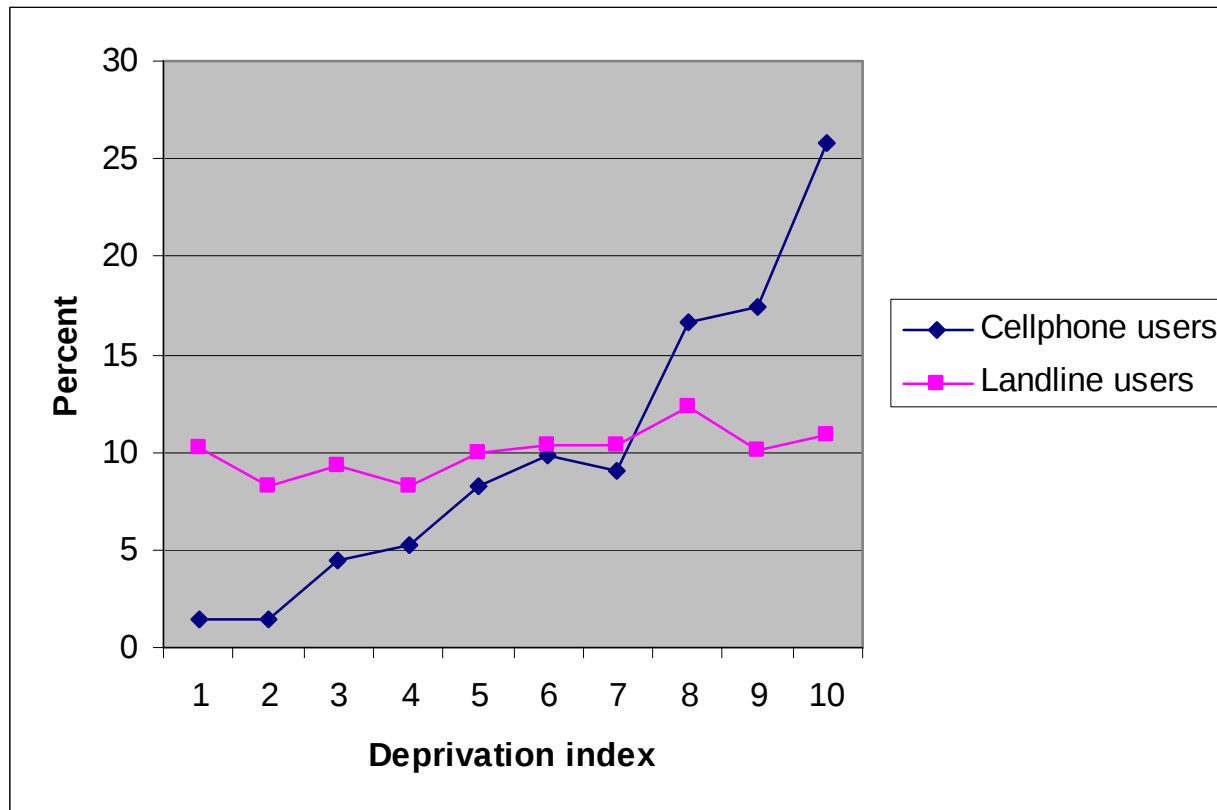
Fig.1. Cellphone users as percent of all callers, May 2005 to February 2009



-- St George IM, Cullen MJ, Harp J. Cellphone callers to a triage and advice line may have high health needs.
Submitted to *Australian & NZ Journal of Public Health* 2009.

Cellphone callers: 2

Fig.2: percent of cellphone callers (n = 132) in each NZDep06 decile of deprivation, compared with percent of landline callers (n = 873) in each decile.



Healthline's original aims: achieved ✓

- *Social equity*: those who perceived barriers to seeking help would be able to do so: especially Māori, Tagata Pasifika, socioeconomically deprived, elders....
- *Economic*: resources would be saved by demand management: directing people to the right place at the right time.

Doing its share: Quality & safety

Transparency

- Comprehensive data collection
- Quarterly reports
- Frequent conference presentations
- Articles in popular health press
- Studies published in peer-reviewed literature ➤

1. St George IM, Cullen MJ. The Healthline pilot: call centre triage in New Zealand. *N Z Med J*. 2001 Sep 28;114(1140):429-30.
2. St George IM. The holidays at Healthline. *NZ Fam Phys* 2002; 29: 123.
3. St George IM, Branney M, Horo-Gregory W, Duncan L, Cullen M. Maori callers to a telephone triage service. *NZ Fam Phys*, 2003; 30: 261-263.
4. St George IM, Cullen M. Crisis calls to Healthline. *N Z Fam Phys*, 2003. 30: 40-41.
5. Graber DJ, O'Donovan P, Ardagh MW, St George IM. A telephone advice line does not decrease the number of presentations to Christchurch Emergency Department, but does decrease the number of phone callers seeking advice. *NZ Med.J*. 2003. 116 (1177): 495-501.
6. St George IM, Cullen M, Branney M, Hogan M, Duncan L. Telephone triage reduces out-of-hours work for country doctors. *NZ Family Physician*, 2003. 30: 95-99.
7. St George IM, Cullen M, Branney M. A primary care demand management pilot in New Zealand: telephone triage using symptom-based algorithms. *Asia-Pacific Family Medicine* 2003; 2 (3): 153-156.
8. St George IM, Cullen M, Branney M. How well does telephone triage meet the needs of older people? *NZ Family Physician* 2005; 32: 94-97.
9. St George IM, Cullen M, Branney M. Healthline: do primary care doctors agree with the advice? *NZMedJ*, 2005; 118 (1224): <http://www.nzma.org.nz/journal/118-1224/1693/>.
10. St George IM, Cullen MJ, Branney M. The deprivation profile and ethnicity of Healthline callers. *NZ Fam Phys* 2006; 33 (6): 386-389.
11. St George IM, Cullen M, Wilson A, Wilson F, Dolan B, McGeorge P. The Mental Health Line. *NZ Family Physician*, 2006; 33 (5): 336-7.
12. St George IM, Cullen MJ, Branney M. What part does a national health call centre play in an integrated primary care service? *NZ Med J* 2007; 120 (Feb).
13. St George IM, Matthew Cullen, Louise Gardiner, Georgia Karabatsos, Joseph Ng, Andrew Patterson, Andrew Wilson. Universal telenursing triage in Australia and New Zealand: a new primary health service. *Australian Family Physician*, 2007; Vol 37, (6) 476–479.
14. St George IM, Julie Baker, Georgia Karabatsos, Richard Brimble, Andrew Wilson, Matthew Cullen. How safe is telenursing from home? *Collegian: Journal of the Royal College of Nursing Australia* 2009; Vol. 16 (3): 119-123
15. St George IM, Cullen MJ, Harp J. Cellphone callers to a triage and advice line may have high health needs. Submitted to *Australian & NZ Journal of Public Health* 2009.
16. St George IM, Harp J. Telenursing in New Zealand. A chapter in *Telenursing 2009*. In press.



Clinical governance principles

- Clinical effectiveness - correct use of up to date protocols, algorithms, guidelines and procedures.
- Professional development – continuing learning; employee satisfaction; credentialing; research; publications and presentations; transparency.
- Clinical risks - adverse events monitoring including critical incident management; clinical audits.
- Customer complaint and compliment processes.

Doing its share:
but wait – there's more

Opportunities

Telenursing is more than Healthline;

- Syndromic surveillance
- Mental Health Line
- MeNZB Line
- Taranaki pilot - after hours enhanced services
- Disease Management – telephone coaching
- Secondary triage for 111
- Pandemic and other public health situations
- McKesson@Home workforce



Telenursing in Australia

- *HealthDirect* triage and advice;
- *HealthInfo* information and health policy;
- *SouthWest24* mental health services;
- *Residential Care Line*;
- *Sexual Assault Referral Centre Crisis Line*;
- *Drug Cautioning Line*;
- *Health Incident Lines* (public health emergency lines as required, e.g. SARS line);
- *PEP* (post-exposure prophylaxis for HIV).
- *Secondary triage for the St John Ambulance*;
- *Chest pain program* for insured patients;
- *Outpatient bookings* (an appointment, reminder and tracking system);
- *Surgical patient follow up*.
- *Greater Murray Access Line*,
- gambling line,
- chronic disease management.



Doing its share for primary care

- High quality evidence-based advice
 - Experienced registered nurses using robust decision support software
 - More than 400 guidelines ensure clinical safety and consistency.
 - The clinical guidelines assess the urgency of the caller's symptoms, so nurses can advise where and when to go for help.
 - Guidelines and procedures are continuously monitored and updated.
 - Well established clinical governance framework; ISO 9001 certified
 - All calls are captured in CECC and are voice recorded for quality purposes. The service is transparent and accountable.



Doing its share for primary care

- Health providers and health sector
 - Free, high quality, evidence-based advice available to your patients 24/7.
 - After hours call diversion
 - Significant role in pandemic and health alert situations, such as national pandemics reducing the burden on other health services.
 - Health and communicable disease surveillance, by collecting call data for analysis of specific health events e.g. Influenza like illness (ILI) monitoring data, measles outbreaks.



Doing its share for primary care

- Your patients

- Access to triage and health advice 24/7, including for those in isolated areas or on a lower income.
- Free from landline or cell phone
- Registered nurses to direct callers to GPs, emergency services or support callers to self-care, where appropriate.
- Information on the location and availability of health care services including after hours primary health care.
- Links to other services so callers have access to a range of health and wellness information.
- Call backs to check on progress.



Doing its share for primary care

- Performance assured
 - Healthline handles over 350,000 calls per year, helping to reduce demand on other services
 - More than 80 percent of calls are answered within 20 seconds
 - Less than 5% of calls unanswered
 - Low level of complaints (one per 7500 calls)
 - Able to reach groups with greater needs, including Maori and Pacific populations
 - High levels of customer satisfaction.





Free health advice
when you need it

 **Healthline**

0800 611 116

www.healthline.govt.nz

nzherald.co.nz - Tuesday March 9, 2010



Little Emily Cotton is smiling again and her mother, Susan, is singing the praises of the Healthline service after her call produced the right answer.

Free health advice
when you need it


Healthline
0800 611 116
www.healthline.govt.nz

... any questions?

