

Auckland District Health Board Emergency Contraceptive Pill Pilot

1.0 Background

The ECP Pilot administered by Auckland DHB provided a free ECP service through community pharmacies together with a pamphlet detailing how the ECP should be taken, how to obtain information on other methods of contraception, where to go regarding Sexually Transmitted Infections and how to seek help regarding any non-consensual sex. In addition a supply of condoms was provided to each person receiving ECP.

The pilot was run within the Auckland DHB region from the beginning of October 2008 until the end of March 2009 (6 months). The aim of the project was to provide a free, accessible service to the Auckland DHB population to help address the issue of unwanted pregnancies within Auckland. It was thought that by removing the cost barrier and improving accessibility, the pilot may contribute to a reduction in the number of termination of pregnancies and contribute to an overall reduction in unwanted pregnancies.

2.0 Methodology

Termination of pregnancy data were extracted by the Decision Support Team for the period starting the 1 January 2008 to 31 March 2010. The extracted variables were; age, gender, ethnicity, NZDep06 and the DHB of patients. A control chart was used to identify any major changes in the data trends.

The number of terminations carried out within Auckland DHB for the period January 2008 to March 2010 was examined to identify whether there was a noticeable effect during the time the pilot was implemented. The assumption was that if Auckland DHB provides free ECP in accessible locations, this will reduce the number of terminations provided in the public health system.

It is very difficult to link cause and effect between the emergency contraceptive pill pilot and the number of termination of pregnancies. There are many confounding variables that cannot be controlled for therefore the analysis below should be considered as indicative only.

3.0 Results

The majority of Auckland DHB community pharmacies (85%) participated in the project. Reasons for non-participation included religious ideology and administration concerns. The busiest pharmacies were those situated in malls or in high pedestrian zones.

The total number of scripts for ECP dispensed during the study period was n=8501. A breakdown of this uptake by age and ethnicity is detailed in Table 1 below. The 'other' ethnic category utilised the service most (65%), followed by Asian (21%), Pacific (8%) and Maori (6%). This parallels with the ADHB population which consists of 59% 'other', 22% Asian, 12% Pacific, and 7% Maori.

Table 1. Number of ECP scripts dispensed as part of the pilot by age grouping and ethnicity

Age Band	Maori	Middle Eastern	North Central Asian	North West Asian	Not Stated	Other	Other Asian	Pacific People	Sourh Central Asian	South East Asian	Grant Total
10-14			1			19		1	2	3	26
15-19	92	7	74	35	34	932	8	109	83	50	1424
20-24	209	14	258	75	58	1724	19	272	185	116	2930
25-29	93	12	245	36	46	1164	14	182	161	92	2045
30-34	66	1	46	15	28	630	4	74	66	34	964
35-39	22	4	25	2	17	335	4	31	25	14	479
40-44	12	1	24	1	3	150	2	11	10	8	222
45-49	4		3		2	55	1	5	3		73
50-54			3	3	2	5			1		14
55-59						4		1			5
60+			1	1		1		1			4
(blank)	9		24	4	65	161	2	17	17	16	315
Grand Total	507	39	704	172	255	5180	54	704	553	333	8501

We were concerned to find out whether the ECP was being used instead of other more appropriate contraception. When reviewing the frequency of usage 46% of users had never used ECP before or had used it once before, 44% had used it between 2-5 times, 5% used it greater than 5 times, and 5% not reporting. It appears that within this study sample the ECP is largely being used appropriately.

During the pilot period there was a downward trend in termination rates in the Auckland DHB population. However, as detailed in Figure 1 there was no statistically significant change during the pilot period, but a downward trend was observed. Both Waitemata and Counties Manukau DHB (Figures 2 and 3) show no major changes during the study period.

Figure 1: Auckland DHB patient

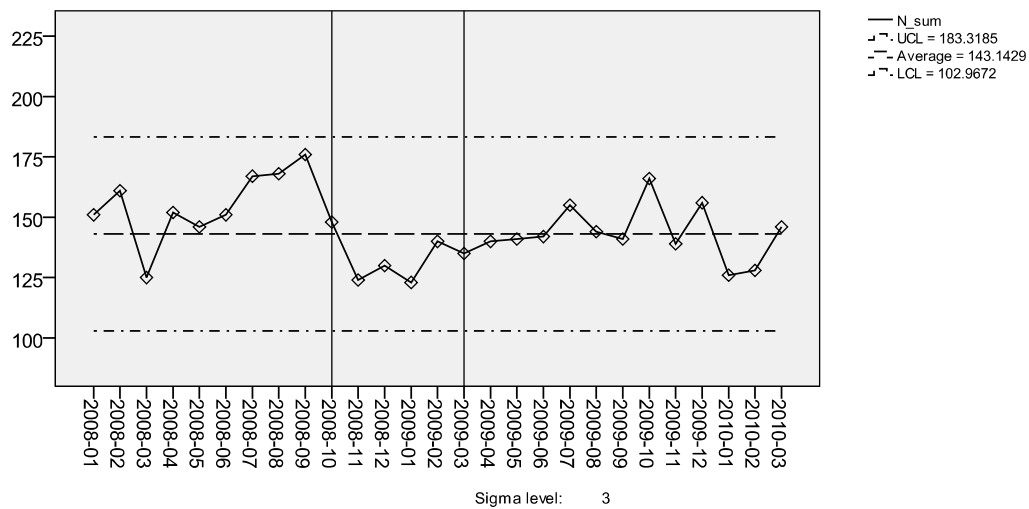


Figure 2: Waitemata DHB patient

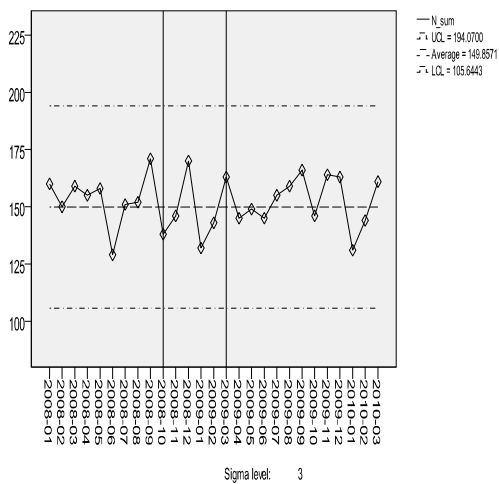
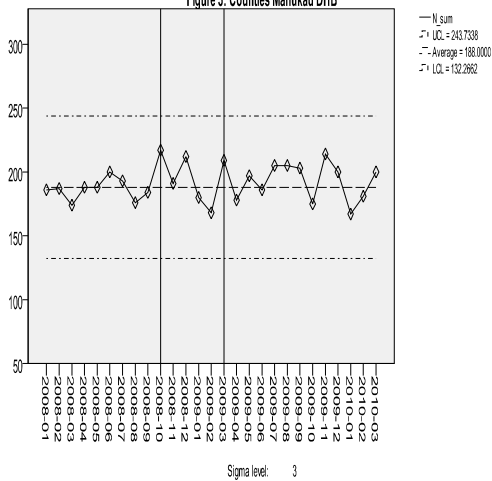


Figure 3: Counties Manukau DHB



Termination of pregnancy by ethnic group are shown in Figures 4, 5, 6, 7, and 8. Termination data during the study period reveals that there was a downward trend in Asian and European ethnic groups. This is consistent with data collected during the pilot on service users (6% Maori, 8% Pacific, 21% Asian and 65% 'other' ethnic groups).

Figure 4: Ethnicity: Asian

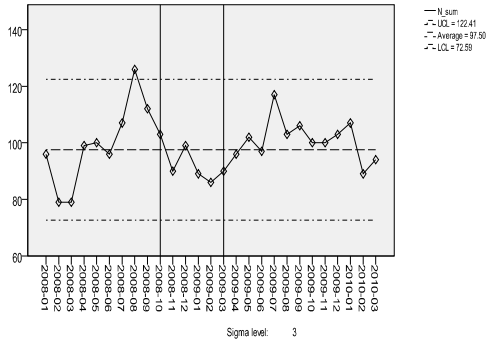


Figure 5: Ethnicity: European

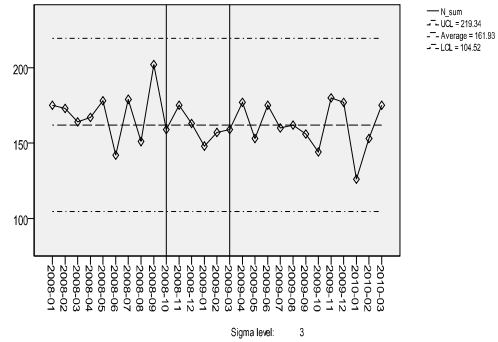


Figure 6: Ethnicity: Maori

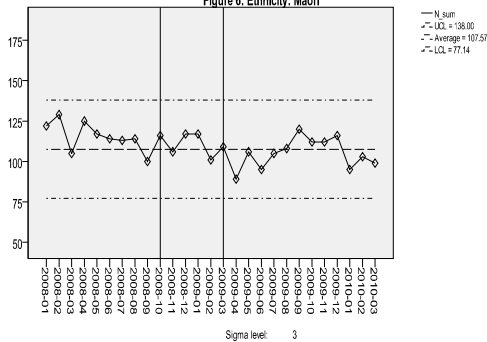


Figure 7: Ethnicity: MELAA

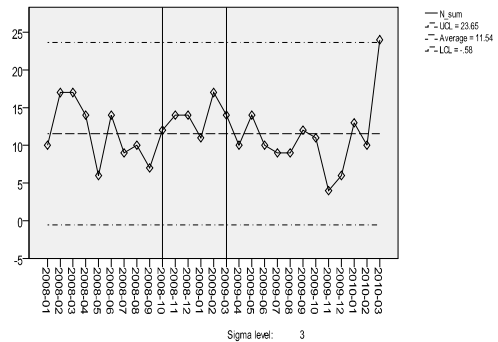
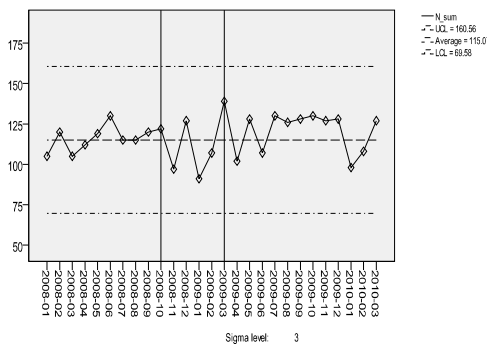


Figure 8: Ethnicity: Pacific Island



Figures 9, 10, 11 and 12 show there were no major in change in termination rates by age during the study period. When reviewing the age of those using the service the majority of users were under 29 years of age (76%), of this 17% were 19 years or under.

Figure 10: Agegroup: 0-19

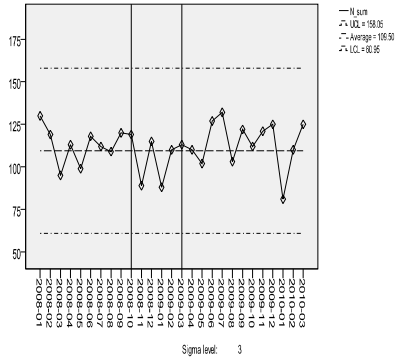


Figure 11: Agegroup: 20-25

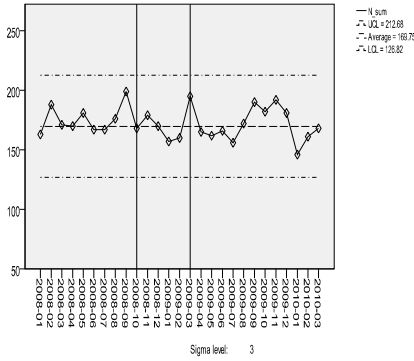


Figure 9: Agegroup: >31

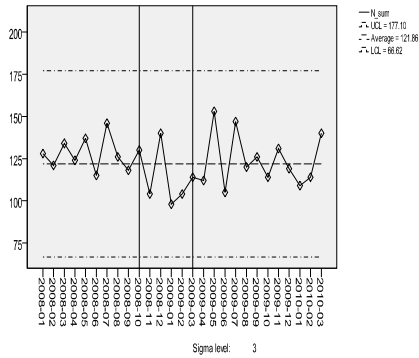
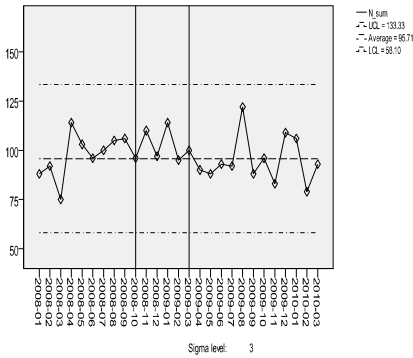
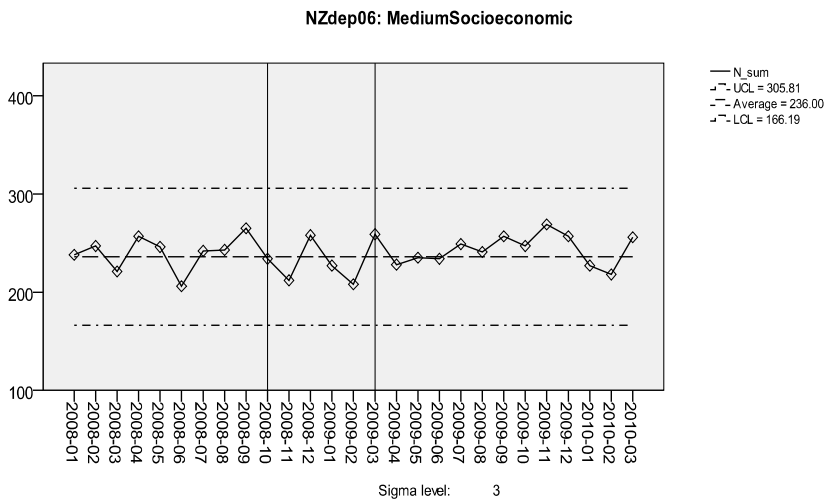
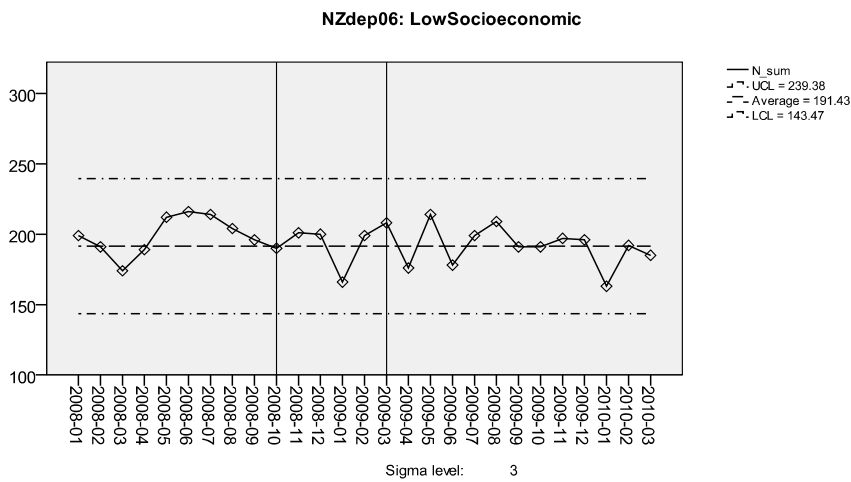
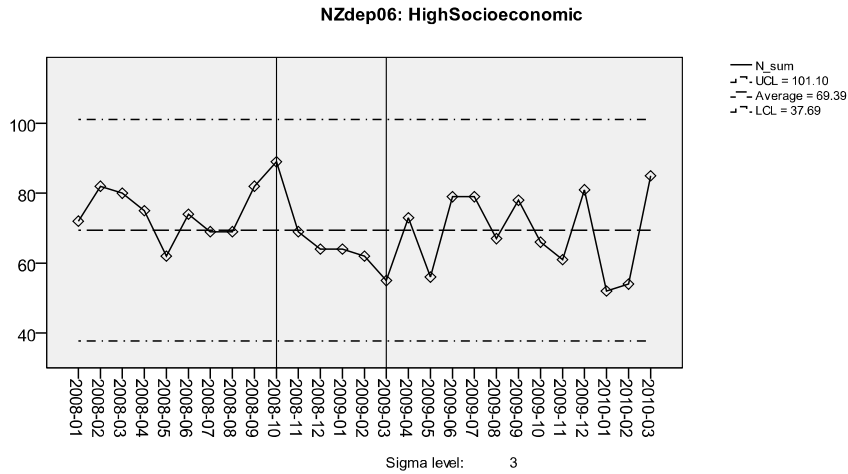


Figure 12: Agegroup: 26-30



Figures 13, 14 and 15 reveal there were clear reductions in the number of terminations in patients with high socioeconomic level. However, for both the low and the medium socioeconomic groups, there were no major changes.



4.0 Discussion:

The analysis shows that there may have been some positive changes with regard to a reduction in termination of pregnancy rates as a result of the ECP pilot. Unfortunately, the findings were not statistically significant potentially due to the length of the pilot period and relatively the small sample size. Overall, the positive trend provides confidence that this service may be beneficial for the population and ADHB.

Furthermore, the noted reductions in terminations were identified in Asian and Europeans, and in high socio economic groups. A more targeted approach may be necessary in order for the benefits to be realized in lower socio economic groups, and Maori and Pacific ethnic groups, for example awareness raising and education regarding the availability of free ECP in community pharmacies. A New Zealand study found that knowledge about ECP may be low in certain groups, only 7% of women attending Epsom day unit or Auckland medical aid clinic had used the emergency contraceptive pill in the month they conceived. When asked why they had not used the emergency contraceptive pill 38% of respondents said they had not heard of it and 41% did not know where to obtain it. Pacific Island women were least likely to have heard of it (Young, McCowan, Roberts, & Farquhar, 1995). This suggests that there may be a lack of knowledge in relation to the emergency contraceptive pill in women attending termination of pregnancy clinics.

The teenage birth rate in New Zealand is relatively high by OECD standards, and the abortion rate has risen since 1980 (Statistics New Zealand, 2009). It could be argued that the considerable human and healthcare costs resulting from unintended pregnancies could be reduced significantly at modest cost by more widespread and accessible distribution of emergency contraceptive pills. The ECP pilot was funded \$300,000 over a 5 month period, community pharmacists received \$47+GST per ECP dispensed. Although direct comparisons cannot be drawn the average price of a 1st trimester termination of pregnancy in ADHB is \$994.60 which is considerably more than the cost of dispensing ECP. Furthermore the personal mental health costs associated with terminations (Major, Appelbaum, Beckman, Dutton, Russo and West, 2009) should be considered when looking at the effectiveness of this service. Although there may be savings from a reduction in termination of pregnancy volume as a result of free ECP we also need to consider the proportion of service users that would utilize the free ECP service when they have not conceived (false positives).

Overall the ECP pilot has provided some interesting findings especially with regard to a downward trend in termination data.

5.0 Recommendation:

Should this service receive funding in the future it would be beneficial to increase engagement and awareness amongst high needs groups especially in light of the high teenage birth rates and high termination rates in Maori and Pacific and the relatively low uptake in this pilot by these ethnic groups.

References

Young, L., McCowan, L.M., Roberts, H.E., & Farquhar, C.M., (1995). Emergency contraception -why women don't use it. *New Zealand Medical Journal*, 108(998) 145-148.

Statistics New Zealand (2009). Abortion trends in New Zealand 1980–2007. Wellington: Statistics New Zealand.

Major, B., Appelbaum, M., Beckman, L., Dutton, M., Russo, N., and West, C., (2009). Abortion and mental health: Evaluating the evidence. *American Psychologist*, 64(9) 863-890.