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**County Kilkenny:
COMMUNITY NEEDS ASSESSMENT**

RESEARCH METHODOLOGY

Prepared for:

Kilkenny County Council Partnership Committee

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STRICTLY CONFIDENTIAL

1. The Population

The target population for the survey is the universe of people aged 18 and over living in County Kilkenny. In the 1996 Census the total population of County Kilkenny was circa 75,000 persons and has probably grown to about 80,000 over the past 6 years.

For the purpose of this study the universe is all adults aged 18 or more living in a household with a telephone landline connection.

NGM Ltd. developed a comprehensive list of all possible County Kilkenny telephone numbers by listing all possible numbers with an 056, 051 or 053 prefix.

2. Sampling Frame and Method

When all possible numbers were listed, they were brought into a statistical package, SPSS, where numbers were randomly selected to give a total of 3,952 County Kilkenny telephone numbers.¹ NGM achieve a sufficient 34% response rate (see section 7 below)

Completed interviews (1)	1,228
Refused (2)	698
3 times unavailable (3)	1,726
Phone disconnected	3,263
Business number	1,279
Not in County Kilkenny	180
Total sample frame (1+2+3)	3,652
Completed interviews	1,228
Response rate 1/ (1+2+3)	34%

¹NGM Ltd are not supplied with any ex-directory listings or other personal data. The anonymity of the respondents was not in any way compromised.

3. Interviewing Methodology

Interviews were conducted by telephone, using a CATI system. 85% of interviewing took place between 1pm and 9pm.

4. Questionnaire Design

The questionnaire if completed in full would have required approx. 25 minutes of the respondents time, which was deemed to long. For this reason the researchers increased in initially proposed sample size to from 700 to 1,200 and divided the questionnaire among the sample so that all respondents completed the screening, introduction (quality of life and service provision) and demographic sections, but only half completed the 4 of the 9 sections and the other half 5 of the nine sections. The interview took and average 11 minutes.

		Version 1	Version 2
		Number of data points	Number of data points
	Screening	5	5
	Introduction	20	20
	1 Healthcare	20	
	2 Education		7
	3 Employment/ standard of living		11
	4 Transportation	15	
	5 Housing/ environment		20
	6 Substance mis-use		10
	7 Recreation and leisure		13
	8 Crime/ safety	5	
	9 Other	20	
	Demographics	12	12
	Total	97	98

5. Response and Non Response

In a voluntary survey of this nature it is always necessary to contact more than the required number of interviewees in order to achieve these final interview totals. In addition to refusals and eligible respondents being unavailable during the fieldwork period, any sample contains a proportion of wrong or unobtainable numbers, plus numbers from which no reply is ever obtained.

6. Weighting

The sample taken was to a small unequally distributed on the basis of electoral area, and to a large degree weighted toward females due to the content of the survey. Reweighting was applied by electoral area and gender, although it did not have a significant affect on the data analysis.

		Response base	Sample	Population	Weights
Males	Ballragget	90	7%	9%	1.23654
	Callan	66	5%	6%	1.13535
	Kilkenny	122	10%	15%	1.53743
	Pilltown	50	4%	11%	2.64921
	Thomastown	58	5%	9%	1.80605
Females	Ballragget	186	15%	9%	0.59833
	Callan	149	12%	6%	0.50291
	Kilkenny	247	20%	15%	0.75938
	Pilltown	124	10%	11%	1.06823
	Thomastown	130	11%	9%	0.80578
Total		1,222	100%	100%	

7. Estimation of the overall proportions, and calculation of standard errors and confidence intervals

Any estimate based on data collected from a sample is subject to sampling error because it is based on one of a number of possible samples, and had a different sample been taken another estimate would have been obtained. The sampling error is a measure of the variability of these estimates. The sample estimate and its sampling error (known as its “standard error”) allow the construction of interval estimates with a prescribed level of confidence that the interval includes the average result of all possible samples.

To illustrate, if all possible samples are selected each surveyed under essentially the same conditions and an estimate and its standard error were calculated from each sample, then there is a 19 in 20 chance that the true figure (i.e. the figure obtained if one were to collect data from the whole population) is inside an interval which runs from two standard errors below the sample estimate to two standard errors above the estimate. This interval is called a 95% confidence interval.

The size of the standard error, and thus the length of the confidence interval, is influenced by the size of the sample, coupled with its design and the estimation procedures used, as well as the amount of variability present in the population as a whole.

The central limit theorem was developed by Laplace and Gauss in the 19th century. It states that any random sample taken of a population involving 30 or more acceptable responses is assumed to have a normal distribution from the mean. In other words, taking 30 responses from each category should be enough to assume the results reflect the entire population. Due to the complication of dealing with people rather than products taking extra samples helps ensure this theorem holds true (obviously the confidence interval on collected data increases the larger the sample size), but it is also believed that sampling above a certain percentage of the population adds no value to the data. After interviewing a random 25-35% of the population little, if any, of the data/information will change by continuing the survey/data collection.

