

Final Report on the Demography of Bolnore Village

Prepared by Julia Bunting Thring

On behalf of
BOLNORE SCHOOL GROUP

11 February 2007

1. Experience and Qualifications of Julia Bunting Thring

Education and Training

Dates	Institution	Course	Qualifications
1995-96	London School of Hygiene and Tropical Medicine	Medical Demography	MSc in Medical Demography
1992-95	St. Catherine's College, Oxford	Human Science	BA (Hons) Human Science

Employment History

Dates	Organisation	Position	Responsibilities
2004-	Department for International Development (DFID)	Statistics Adviser and Deputy Team Leader, Reproductive and Child Health Team, Policy Division	Advising UK government on global patterns and trends in progress towards improving maternal health and reducing child mortality. Member of international expert groups to improve methodology and global data availability.
2002-04	Department for International Development (DFID)	Regional Statistics Adviser, DFID Southern Africa (based in South Africa)	Statistics Adviser for 9 countries in Southern Africa. Advising national governments on strategies to improve statistical infrastructure and monitor development outcomes.
2000-02	Department for International Development (DFID)	Statistics Adviser, Policy and International Division	Lead Adviser working with United Nations, World Bank and International Monetary Fund to support global and country efforts to strengthen statistical capacity.
1998-00	Department of Health (DH)	Assistant Statistician, Demography and Health, Statistics Division	Coordinated DH into 2001 Population and Housing Census. Board member on intra-governmental group on measuring deprivation. Member of central and local government information partnership.
1996-98	Office for National Statistics (ONS)	Research Officer / Demographer, Demography and Health Division	Analysis and publication of several reports on patterns and trends in health inequalities (see below) Analysis and publication of two reports on patterns and trends in suicide mortality (see below).
1994	United Nations Economic Commission for Europe, Geneva	Intern, Population Activities Unit.	Analysis of demographic patterns and trends in Central and Eastern Europe since the transition to market economies.

Awards

1995/96 – Economic and Social Research Council (ESRC) Advance Course Studentship for MSc in Medical Demography.

Publications (peer reviewed only)

Bunting, J (2007) 'The UK's approach to statistical capacity building in developing countries' in *Sigma: The Journal of the European Statistical System*. (forthcoming)

Bunting, J (2005) 'Global Goals to Address Local Needs' in *Habitat Debate: The Journal of the United Nations Human Settlements Programme*. Vol. 11. No. 3.

Aylin, P. **Bunting, J**, De Stavola, B. Coleman, M and Alperovitch, A (1999) 'Mortality from dementia in occupations at risk of exposure to bovine spongiform encephalopathy: analysis of death registrations' In: *British Medical Journal* Vol. 318: 1044 – 1045.

Dunnell K, **Bunting J**, Wood R, Babb P. (1999) Measuring aspects of women's life and work for the study of variations in health. In: *American Journal of Industrial Medicine*: Vol. 36(1) 25-33.

Dunnell K, Fitzpatrick, J and **Bunting J** (1999) Making use of official statistics in research on gender and health status: recent British data. In: *Social Science and Medicine*. Vol. 48(1):117-27.

Bunting, J and Davies, S (1998) 'Geographic variations in suicide mortality, 1982-96'. In: *Population Trends*, Vol. 93: 7-19. The Stationery Office.

Davies, S and **Bunting, J** (1998) 'Trends in Suicide in England and Wales 1982-96' In: *Population Trends*, Vol. 92: 29-41. The Stationery Office.

Bunting, J (1997) 'Morbidity and health-related behaviour of adults – a review' In: Drever, F and Whitehead, M. (Eds) *Health Inequalities – Decennial Supplement*. The Stationery Office.

Bunting, J (1997) 'Sources and methods' In: Drever, F and Whitehead, M. (Eds) *Health Inequalities – Decennial Supplement*. The Stationery Office.

Botting, B and **Bunting, J**. (1997) 'Children's health and lifestyle – a review' In: Drever, F and Whitehead, M. (Eds) *Health Inequalities – Decennial Supplement*. The Stationery Office.

Drever, F and **Bunting, J**. (1997) 'Patterns and trends in male mortality'. In: Drever, F and Whitehead, M. (Eds) *Health Inequalities – Decennial Supplement*. The Stationery Office.

Drever, F, **Bunting, J** and Harding D. (1997) 'Male mortality from causes of death' In: Drever, F and Whitehead, M. (Eds) *Health Inequalities – Decennial Supplement*. The Stationery Office.

2. Summary

- 2.1. Bolnore School Group (BSG) is a residents group operating under the auspices of the Bolnore Village Residents' Association (BVRA) to assess the social infrastructure requirements of residents as regards schooling. It has four committee members, and is led by Julia Bunting Thring, a Bolnore Village resident and mother of a daughter (nearly 3 years old).
- 2.2. One of the objectives of BSG is to derive, validate and interpret data on the child population of Bolnore, and to seek West Sussex County Council (WSCC) provision of appropriate schooling. To this end, a survey has been conducted within Bolnore Village.
- 2.3. This final report has been produced at the conclusion of the survey in January 2007 to assess all the available evidence.
- 2.4. BSG is working in association with WSCC officers, who have reviewed and agreed the survey questionnaire (Appendix A). However the analysis of the results and their interpretation is the work of BSG alone.
- 2.5. The guiding tenet of the survey is that data should be gathered on a non-optional basis – respondents are at liberty to refuse to give information or views, but they are not given the option to choose to be surveyed or not. This ensures that the results are not biased by 'self selection', which would otherwise leave data open to the challenge that it was circular ("100% of those who have children want a school")
- 2.6. To achieve this, questionnaires were not distributed, but were completed in the presence of an enumerator; or alternatively a refusal was recorded. BSG's objective was to secure as high a level of response as possible.
- 2.7. At the conclusion of the survey, a total of 352 questionnaires have been assessed. This is the same number as in the interim survey. Although a further three surveys were returned since the interim report they do not have a sufficient impact on the data to justify a full reworking of the analysis.
- 2.8. Eleven households declined to complete a survey. The 352 represents 57% of the estimated 615 occupied dwellings in Bolnore Village. An estimated 50 dwellings were unoccupied at the time of conducting the survey, giving an

estimated 665 units completed of the 849 units which have received planning permission on Phase 1-3

- 2.9. The survey shows that from the sample of 352 homes there are currently 318 children aged under 16 years residing at Bolnore Village. In addition there are 16 women currently pregnant. There are currently 114 children of primary school age (reception class through to year 6 – that is ages 4 to 11 years). Based on the BSG data for current pre-school children in Bolnore, this number will rise year-on-year with the number of primary school children increasing to 207 by the time the youngest cohort (those born since 1 September 2006 and due to be born by end of August 2007) reach school age.
- 2.10. The data support the assertion that this pattern will continue beyond 2011 (when the current youngest cohort in the sample will begin school). This is because many households report their desired family size to be higher than the number of children they currently have. If all those who said they thought they would have more children went on to achieve their desired family size this would add a further 241 more children to the Bolnore population. This addition assumes that desired family size is achieved during residency within Bolnore Village.
- 2.11. The data demonstrate that Bolnore Village is home to a larger concentration of children than would be expected on the basis of historical community development. In particular, the data demonstrate that the demographics of Haywards Heath, Mid Sussex, South East England, and England as a whole are poor predictors of the demography of Bolnore Village. There are likely to be many contributing factors to this, but prospective information from residents indicates the peculiarity of this demography will continue for an extended period, and may represent a specific pattern in the demographics of child-rearing households within the district.
- 2.12. We conclude that taking account of the current demography, the projected demography of phases four and five of Bolnore Village, and peripheral factors such as travel behaviour, the case for a school at the centre of the Bolnore Village development is overwhelming.
- 2.13. Though the original purpose of this report was to assist WSCC in assessing the need for a school within Bolnore Village, this report has also been submitted to the planning inquiry into phases 4 and 5. It was submitted because the tenor of

the December 2006 “update report” of the appellant’s education witness, Stephen Clyne, is that no school should be built at Bolnore Village. This is implicit in Mr. Clyne’s choice of education cost multiplier, which specifically excludes the costs associated with a new school (as opposed to extending existing schools). This assertion is made even though the statement of common ground before the inquiry specifically places the intended use of the reserve school site outside the inquiry’s scope.

- 2.14. To facilitate the inclusion of this report in the inquiry, the survey was closed ahead of a potential “second round” enumeration to try to raise the sample size still further. The Principal Investigator, though in full time employment, spent a number of days entering and assessing the data. Three of those days were taken as annual leave at her own expense. In addition a number of local people have assisted in the proof reading and editing of this report. BSG and its parent organisation BVRA would like to take this opportunity to record their thanks for the hard work of all involved.
- 2.15. We understand WSCC and Crest have agreed an appropriate education contribution. The substantive issue before the inquiry, that of the education contribution, has therefore been resolved. However the appropriateness in planning terms of a new school to facilitate the education of children of families in phases four and five remains open because Stephen Clyne’s evidence on the point has not been withdrawn. Bolnore Schools Group offers this report to assist the inquiry in its consideration of that matter.

3. Scope

- 3.1. This report is the final report of all findings of the Bolnore School Group survey on the demography of Bolnore Village.

4. Method

- 4.1. A survey was constructed in partnership with West Sussex County Council (“WSCC”). The stated aim was “to determine the current need, and future demand, for a primary school”. A specimen survey is provided at Appendix A. It was agreed with WSCC that the survey would be conducted through door-to-door enumeration. Individual survey results would be anonymous but participation would be recorded on participation registers. Copies of the sample registers are provided at Appendix B.
- 4.2. Address data for local postcodes were taken from the council tax valuation register. Bolnore Village addresses were identified and every address was allocated into one of four “areas” (see Table 1 below). The accuracy of address data was refined empirically as the survey was enumerated.
- 4.3. Survey forms were printed single-sided with each form consisting of 3 pages of questions, (one on household characteristics; one on children in the household and one on adults (including future desire for (more) children)); and a front page which gave the background to the survey and instructions on completion. While individual returns are anonymous, surveys were printed on different coloured paper according to the area in which they were distributed. The colour codes are given in Table 1. The meaning of the colours was explained to participants. During data entry each survey form was given a unique number to allow it to be cross-checked against the database at a later date should any anomalies arise during analysis.

Table 1 – colour coding of surveys

Area	Colour
Upper Village (“phase one”)	Yellow
Middle Village (“phase 2 north”)	White
Lower Village (“phase 2 south”)	Purple
Village Heights (“phase 3”)	Green

- 4.4. Survey coordinators were recruited and one assigned to each of the four areas. It was the responsibility of survey coordinators to ensure that the enumeration took place at a steady pace, and to replace enumerators who found themselves unavailable.
- 4.5. Enumerators were recruited and assigned 'zones' of the village to enumerate. Each zone consisted of about 30 households. Most enumerators covered one zone but some did two or more (sometimes combining with other enumerators who were available at different times). Several rounds of enumeration were conducted (at various times of the week – daytime, evenings, weekends) in order to obtain coverage of as many properties as possible.
- 4.6. A survey start-up and training meeting was held before enumeration commenced. During training, emphasis was placed on:
- Capturing information on all households regardless of number of child occupants.
 - The absolute right of households to choose not to take part
 - The requirement of households who chose to take part to complete the participation form.
- 4.7. Survey enumerators were instructed not to cross the threshold of the dwelling unless the participant was known to them personally. Contingency enumerators were also recruited in case of unexpected unavailability of primary enumerators.
- 4.8. Survey enumerators were not given a set script. Instead, they were encouraged to follow a simple format:
- Introduce themselves to the household;
 - Explain the purpose of the survey;
 - Emphasise that all households regardless of whether children were present are encouraged to take part;
 - Explain the levels of anonymity and confidentiality participants may expect (with particular emphasis on the participation sheet);
 - Invite participation:

- If immediate participation was agreed, to provide a survey and envelope to be completed immediately with the enumerator returning in a few minutes;
- If participation was agreed, but not immediately, to arrange a convenient date and time to return;
- If participation was refused, to note this on the participation sheet;
- Thank the household for its time.

4.9. Survey enumeration commenced on 2nd December 2006. Data were entered in batches as survey forms were returned in their sealed envelopes. All data were entered by the Principal Investigator in order to ensure consistency of coding. The majority of the enumeration was concluded by 21st December 2006 although some forms were not returned until early January 2007. Analysis began in January 2007, resulting in an interim report and this final report completed 5 February 2007.

5. Sample size and quality

- 5.1. In this preliminary report the sample is 352 completed questionnaires. This is from 363 households invited to take part, 11 refusals having arisen. The current Bolnore Village development contains approximately 665 homes. This number is an estimate as the development is still under construction; not all homes for which planning permission exists are built; and even those which are built may not be occupied (either having never been occupied or not currently being occupied). The sample represents about half of all current homes in Bolnore.
- 5.2. The geographical distribution was spread fairly evenly throughout all phases of the village. This preliminary report offers the breakdown by area (Table 1). The precise geographical distribution may be constructed from the participation registers; however this exercise will not be undertaken until the surveying and analysis is complete.

Table 1 – geographical distribution of returned surveys

Area	Number of Responses	Number of Properties	Response Rate
Upper Village ("Phase 1")	64	99	65%
Middle Village ("Phase 2 north")	170	305	56%
Lower Village ("Phase 2 south")	52	128	41%
Village Heights ("Phase 3")	66	133	50%
TOTAL	352	665	53%

Note: the number of properties in each phase is estimated because building work was still on-going in Middle Village and Village Heights at the time the survey was conducted.

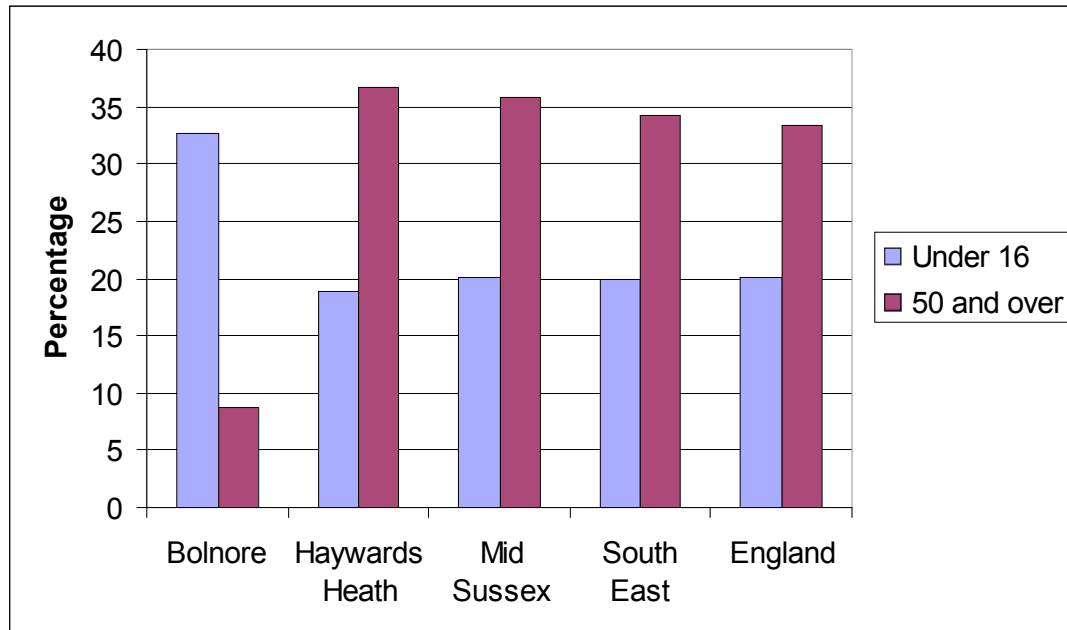
- 5.3. Apartment blocks are a known problem in achieving high survey yields, as access is controlled and this prevents enumerators speaking directly to residents. There is therefore a known bias towards houses; although the current sample still includes 77 apartments (representing 22% of the responses).

6. Total population

- 6.1. In total there were 982 people recorded in the 352 dwellings surveyed. The population is constituted of 664 people aged 16 years and over and 318 children aged under 16 years. The 982 residents in 352 households gives an average household size of 2.79 persons. The average number of persons per size of dwelling is shown in section 10 below.
- 6.2. The population age structure of the Bolnore sample of households is significantly different from other wards in Haywards Heath. Data from the 2001 Population and Housing Census, were extracted by single year of age¹ for the 6 wards (Ashenground, Bentswood, Franklands, Harlands, Heath and Lucastes) that constitute Haywards Heath. The BSG survey collected date of birth for all those aged under 16 years of age and then by the following age groups: 16-19; 20-29; 30-39; 40-49 and 50 years and over.
- 6.3. On average across the 6 wards in Haywards Heath just 18.8% of the population is aged under 16 years. This is a lower percentage than the comparable figures for Mid-Sussex (20.1%), South East region (19.9%) and England as a whole (20.2%). In the BSG sample the percentage of the population aged under 16 years was 32.6% - nearly double that of the Haywards Heath wards' average. In contrast, 36.7% of the population of the 6 Haywards Heath wards was aged over 50 years compared to just 8.7% of the population in the Bolnore sample. Interestingly, 43.2% of the Bolnore population were aged 20-39 years (the main reproductive age group) compared to just 25.9% for the 6 Haywards Heath wards. These data are represented in Figure 1 below.
- 6.4. The large number of children (particularly pre-school children) who reside in Bolnore is a direct reflection of the population age structure of Bolnore – which is significantly younger, and in particular clustered around the population of reproductive age, than that for Haywards Heath or indeed for Mid Sussex, the South East Region or England as a whole.

¹ The data are available in single year of age from 0-74, then 5 year age groups from 75-79 years to 95-99 years and then a single group for those aged 100 years and over.

Figure 1 – percentage of population under 16 years and 50 years and over by area



7. Child count

- 7.1. Respondents were asked if there were any children aged under 16 years living in the household. The term “children” is used to denote anyone aged under 16 years regardless of their relationship to other members of the household. All but one household (for which the presence of children can be derived²) provided information on whether or not, and how many, children were living in the household. Households were also asked whether any occupant was currently pregnant.
- 7.2. Table 2 below shows the households by number of children. In total there were 183 households with children. These 183 households are home to 318 children (although further details were not obtained for four of these children³). In addition, 16 women were reported to be pregnant – giving a potential 334 children aged under 16 years (on the assumption that each pregnant woman goes on to have a singleton live birth).

² For this household (M149) there can be assumed to be 2 children (not included in table 2, listed instead as incomplete response) - based on the total number of people in the household minus the number of adults listed. It appears that this household completely missed the page of the survey form on children in the household.

³ For two children (U52 and M29) no date of birth was provided but other details were given and both children were recorded as being at primary school and for one household (M149) no children were recorded - see above footnote.

Table 2 – number of households with children aged under 16 years

Number of households with children aged under 16	Response
Incomplete response	1
No children	162
No children but pregnant	7
1 child	67
1 child and pregnant	7
2 children	83
2 children and pregnant	2
3 children	19
3 children and pregnant	0
4 children	4
4 children and pregnant	0
More than 4 children	0
TOTAL	352

Note: there are a number of households which contain both children under 16 and over 16 years of age (the children aged 16 and over not shown in this table) and there are also a number of households where all children are aged 16 and over which are also not captured in this table.

- 7.3. Table 3 below shows details of the 314 children, for whom date of birth was supplied, by school year (1 September – 31 August). It also includes the 16 women who currently report to be pregnant.

Table 3 Number of children aged under 16 years by sex and school year cohort

School Year	Boys	Girls	Pregnant	Total	Born
11	5	5	-	10	1/9/90 – 31/8/91
10	4	2	-	6	1/9/91 – 31/8/92
9	5	4	-	9	1/9/92 – 31/8/93
8	8	5	-	13	1/9/93 – 31/8/94
7	9	2	-	11	1/9/94 – 31/8/95
6	11	9	-	20	1/9/95 – 31/8/96
5	4	7	-	11	1/9/96 – 31/8/97
4	9	9	-	18	1/9/97 – 31/8/98
3	7	4	-	11	1/9/98 – 31/8/99
2	9	5	-	14	1/9/99 – 31/8/00
1	13	8	-	21	1/9/00 – 31/8/01
Reception	11	8	-	19	1/9/01 – 31/8/02
-1	18	10	-	28	1/9/02 – 31/8/03
-2	21	14	-	35	1/9/03 – 31/8/04
-3	17	21	-	38	1/9/04 – 31/8/05
-4	22	17	-	39	1/9/05 – 31/8/06
-5	4	7	16	27	1/9/06 – 31/8/07
Total	177	137	16	330	

7.4. From the BSG data there are currently 114 children of primary school age (reception class through to year 6 – ages 4-11 years) who are resident in Bolnore. Based on the data for the current number of pre-school children in

Bolnore this number will rise year-on-year. The number of primary school children will increase to 207 by the time the current youngest cohort (those born since 1 September 2006 and due to be born by end of August 2007) reach school age.

8. Young People aged 16-19

- 8.1. Specific details on young people aged 16-19 were not asked, but for completeness there were 26 young people aged 16-19 who were recorded as being the (step)son or (step)daughter of others in the household. Many of these 16-19 year olds also had siblings under the age of 16; increasing the overall number of households with 3 or more children. There were also a number of people aged 20 or older living with their parent(s).

9. Desired Fertility

- 9.1. Respondents were asked whether they thought they would have (more) children. Households were asked to select from one of four options – Yes; Probably yes; Probably no; No. Respondents were then asked to state the total number of children they thought they would ultimately have. They were given five options for this question: none, one, two, three or four plus.
- 9.2. This question was answered by 335 households (17 households left this question blank). 87 households replied that ‘yes’ they thought they would have (more) children and 61 replied saying that ‘probably yes’ they would have (more) children.
- 9.3. Tables 4 and 5 below set out the current number of children and the desired number of children for the group that answered “yes” and the group that answered “probably yes”.

Table 4 – Number of households who replied “Yes” to the question “Do you think you will have any (more) children?” by current number of children

“Yes” Current number of children	Desired number of children				
	1	2	3	4+	Total
0	5 (5)	33 (66)	11 (33)	2 (8)	51 (112)
1		15 (15)	11 (22)		26 (37)
2			2 (2)	5 (10)	7 (12)
3				3 (3)	3 (3)
Total	5 (5)	48 (81)	24 (57)	10 (21)	87 (164)

Note: additional child yield in parentheses.

- 9.4. If these levels of desired fertility are achieved, there is a potential yield of a further 164 children. From this we must exclude the 7 already pregnant (on the assumption they go on to have a singleton live birth) as they have already been

counted in 'current children aged under 16'. This gives an adjusted potential yield of a further 157 children.

Table 5 – number of households who replied “Probably yes” to the question “Do you think you will have any (more) children?” by current number of children

“Probably Yes”	Desired number of children				
	1	2	3	4+	Total
0	3 (3)	23 (46)	1 (3)		29 (52)
1		13 (13)	1 (2)		13 (15)
2			13 (13)	1 (2)	14 (15)
3				3 (3)	3 (3)
4				1 (1)	1 (1)
Total	3 (3)	35 (59)	15 (18)	5 (6)	59 (86)

Note: additional child yield in parentheses.

9.5. There were 61 households who replied 'probably yes'. However, one said they 'didn't know' how many children they wanted and one said they wanted children but did not say how many. Although both these households currently have no children, and we could therefore assume they would want at least one, they have been excluded from the above table and we have only used the empirical data we were provided. If the 59 households who gave a desired number of children went on to achieve their desired level of fertility this would give a potential additional yield of a further 86 children. From this we need to exclude the 2 women who are currently pregnant (on the assumption they go on to have a live singleton birth) as these are already counted in 'current children aged under 16'. This gives an adjusted potential yield of a further 84 children.

9.6. If all those who said they wanted further children went on to achieve their desired family size this would add a potential 241 (157 + 84) more children to

the Bolnore population over the coming years – assuming everything else remained equal. If these households took say the next 10 years⁴ to achieve their desired fertility this would generate an average of 24.1 children per reception year (essentially a complete class) from September 2012 to September 2021.

⁴ ONS (2006) Birth statistics Series FM1 no. 34 – show average birth intervals in 2005 of: 36 months for first to second birth; 40 months for second to third birth; and 35 months for third to fourth birth.

10. Transport to school

- 10.1. Data were provided for 238 applicable children (aged under 16 years) out of 316 in total (M149 2 children were assumed (see footnote 2) not in sample). Of the remaining 78, there were 68 for whom this question was not relevant (64 not in any form of school (all born 2004 - 2006), 2 home educated and 2 boarding); 9 had no information provided on mode of transport ; 1 child had several modes ticked and was therefore not coded.
- 10.2. 203 out of the 238 (86.3%) get to school by car (3 of these are by taxi), 27 out of 238 (11.3%) travel by bus (18 of these to secondary schools, 7 to primary schools and 3 to preschools). Of the remainder, 6 are reported to cycle, 1 was reported to go by train and 1 was reported to walk.
- 10.3. Taking the 112 children who are currently reported to be in primary school⁵ we have we have details on mode of transport for 111 of them. Of these 111 primary school children 100 (90%) travel to school by car. Obviously this does not mean there are 111 single car journeys because some households have more than one child going to the same school. There are 27 households with two children at the same school, 1 household with 3 children at the same school and 1 household with 4 children at the same school. There are 51 households with only one child going to primary school. This means in total there are 80 car journeys to and from school each day.
- 10.4. If we apply a similar ratio (80:112) for the 207 children who will be in primary school by 2011 that will mean there will be an additional 68 car journeys to and from primary school each day or a total of 148 journeys (80+68 = 148).

⁵ This number is based on those actually reporting to be in primary school which differs slightly from the numbers given in Table 3 above which are based on date of birth.

11. Analysis by Number of Bedrooms

11.1. 351 households provided data on number of bedrooms (not H13). Table 6 below shows the breakdown of the 352 properties by number of bedrooms and the average, minimum and maximum number of people resident in properties with this number of bedrooms. On average there are 2.79 people per household. The average number of people of course varies by the size of the dwelling. Not surprisingly, the greater the number of bedrooms the higher the average number of people resident. For example, one bedroom properties have on average 1.5 people resident, compared to 2.9 people in 3 bedroom properties and 3.4 people in 5 bedroom properties.

Table 6 – Total population by number of bedrooms

Number of bedrooms	Number of properties	Total population			
		Number	Average	Minimum	Maximum
1	15	22	1.47	1	2
2	98	211	2.15	1	4
3	125	361	2.89	1	5
4	80	270	3.38	1	7
5	27	92	3.41	2	6
6	6	21	3.50	2	5
n/a	1	5
Total	352	982	2.8	1	7

Note – n/a = data are not available

11.2. Tables 7a, 7b and 7c below show the distribution of children by number of bedrooms. Table 7a shows the number of properties (169) with and (183) without children by number of bedrooms. Table 7b shows the number, average number, minimum and maximum number of children by number of bedrooms across all 352 properties. Table 7c shows the number, average number, minimum and maximum number of children by number of bedrooms for the 183 properties with children.

- 11.3. There are no children living in one bedroom properties. Table 7b shows that the majority of children live in 3 bedroom properties (which account for the majority of properties). Unsurprisingly the average number of children per property (based on all 352 properties) increases with increasing number of bedrooms. So in 2 bedroom properties there are on average 0.5 children per property, this increases continually up to 1.5 children per property in those with six bedrooms. Across the 352 properties there are on average 0.9 children under 16 years of age per household.

Tables 7a,b,c – properties with and without children by number of bedrooms

Table 7a – Total number of properties with and without children by number of bedrooms

No. of bedrooms	Number of properties		
	Without Children	With Children	Total
1	15	0	15
2	66	32	98
3	49	76	125
4	26	54	80
5	11	16	27
6	2	4	6
n/a	0	1	1
Total	169	183	352

Note: n/a = data are not available

Table 7b - Distribution of children across all properties by number of bedrooms

Number of bedrooms	Number of Properties	Children aged under 16 years			
		Number	Average	Minimum	Maximum
1	15	0	0.0	0	0
2	98	51	0.5	1	3
3	125	124	1.0	1	4
4	80	97	1.2	1	4
5	27	34	1.3	1	4
6	6	9	1.5	2	3
n/a	1	3
Total	352	318	0.9	0	4

Note: n/a = data are not available

Table 7c - Distribution of children across properties with children by number of bedrooms

Number of bedrooms	Properties with Children	Children aged under 16 years			
		Number	Average	Minimum	Maximum
1	0	0	0.0	0	0
2	32	51	1.6	1	3
3	76	124	1.6	1	4
4	54	97	1.8	1	4
5	16	34	2.1	1	4
6	4	9	2.3	2	3
n/a	1	3
Total	183	318	1.7	0	4

Note: n/a = data are not available

- 11.4. Similar patterns and trends, but a higher order of magnitude, are seen when looking at just the 183 households that contain children. So for example, across these households 2 bedroom properties have an average of just under 1.6 children, 3 bedroom households have an average of just over 1.6 children etc.
- 11.5. It is worth noting that this analysis is based on children under 16 years of age. As mentioned previously there are a number of households which contain either older children or a mixture of children aged under and over 16 years. Whilst these older children would be captured in the total number of people living in households (shown in Table 6) they are not captured in Tables 7a-7c. These tables and this report therefore underestimate the average number of children people living in Bolnore have.

12. Children by Accommodation Type

12.1. Respondents were asked to provide details on the type of accommodation they lived in for which five options were provided: detached; semi-detached; linked-detached; terraced (including end of terrace), and; flat, maisonette or apartment. Information was provided for 349 households. As only 6 households recorded that they were in linked-detached properties, this category has been combined with terraced for the purpose of analysis. Tables 8a and 8b below show the type of accommodation by whether or not there were children aged under 16 years in the household.

Table 8a – Properties containing children aged under 16 by accommodation type (number)

Accommodation Type	Children under 16		
	Yes	No	Total
Detached	27	18	45
Semi-detached	44	22	66
Terraced	95	66	161
Flat, Apartment	14	63	77
Not available	3	0	3
Total	183	169	352

Table 8b – Properties containing children aged under 16 by accommodation type (percentage)

Accommodation Type	Children under 16		
	Yes	No	Total
Detached	15.0	10.7	12.9
Semi-detached	24.4	13.0	18.9
Terraced	52.8	39.1	46.1
Flat, Apartment	7.8	37.3	22.1
Not available			
Total	100.0	100.0	100.0

12.2. Overall, detached houses account for 12.9% of the sample but 15% of the properties containing children. Conversely, flats and apartments account for 22.1% of the overall sample but only 7.8% of the properties containing children.

- 12.3. Of particular note, is that whilst none of the one and three bedroom flats contain children under 16 years of aged there are a number of children under 16 living in the two bedroom flats. In total there are 60 two bedroom flats in the sample. Whilst no children live in 46 of these there are children under 16 in the remaining 14. Five of these flats contain one child, eight flats each contain two children and one contains three children under the age of 16.

13. Tenure

13.1. Respondents were asked whether they owned or rented their accommodation – for which three options were offered: owner-occupied, shared ownership, rented. 351 households provided data on tenure. 270 (76.9%) are owner occupied; 67 (19.1%) are rented; 14 (4.0%) report to be shared ownership. Unfortunately the questionnaire did not distinguish between privately rented and socially rented – on the assumption that all social housing was shared ownership. However, this could be ascertained retrospectively if this were necessary. Tables 9a and 9b below shows the properties with and without children by tenure.

Table 9a – Properties with and without children by tenure (number)

Tenure	Children under 16		
	Yes	No	Total
Owner-occupied	127	143	270
Shared ownership	12	2	14
Rented	43	24	67
Not available	1		1
Total	183	169	352

Table 9b – Properties with and without children by tenure (percentage)

Tenure	Children under 16		
	Yes	No	Total
Owner-occupied	69.8	84.6	76.9
Shared ownership	6.6	1.2	4.0
Rented	23.6	14.2	19.1
Not available			
Total	100.0	100.0	100.0

13.2. Unsurprisingly whilst the properties that are shared ownership account for 4% of the sample, they account for 6.6% of the properties with children under 16. This is because social housing is allocated on the basis of need and one would therefore expect a higher proportion of families with young children than average – although there were two shared ownership properties which did not have any children in them.

14. Arrival date

14.1. 348 provided information on the date they moved to their current property. Table 10 below shows this by village zone (Upper, Middle, Lower and Village Heights).

Table 10 - Date of occupation by village zone

Zone	Year Arrived							Total
	2001	2002	2003	2004	2005	2006	n/a	
"Upper"	4	23	13	4	9	11		64
"Middle"		2	28	43	33	63	1	170
"Lower"			15	25	5	5	2	52
"Heights"					8	57	1	66
Total	4	25	56	72	55	136	4	352

Note: n/a = data not available

14.2. The date of arrival reflects to some extent the date the various phases of the village were completed. However, even for upper village, which was the first phase to be completed, we are still seeing significant numbers arriving in 2005 and 2006 – long after the phase was completed. This reflects the arrival of second (and possibly third) generation residents as well as capturing the likely higher rate of turnover in rented properties – see also the section on tenure for further analysis.

15. Planned duration

- 15.1. 343 households completed the box on how many more years they expected to remain at their current address – 9 left the answer blank or didn't know. Respondents were asked to choose from one of four options: less than two more years; 2-5 more years; 6-9 more years; 10+ more years. Tables 11a and 11b below show the breakdown by Village zone (Upper, Middle, Lower, Heights) by number of respondents and by percentage for each of the four options.

Table 11a – planned duration by village zone (number)

Zone	Further duration					Total
	<2 years	2-5 years	6-9 years	10+ years	n/a	
Upper	9	22	14	18	1	64
Middle	39	55	34	38	4	170
Lower	11	22	6	11	2	52
Heights	6	24	11	23	2	66
Total	65	123	65	90	9	352

Table 11b – planned duration by village zone (percentage)

Zone	Further duration					Total
	<2 years	2-5 years	6-9 years	10+ years	n/a	
Upper	14.3	34.9	22.2	28.6		63
Middle	23.5	33.1	20.5	22.9		166
Lower	22.0	44.0	12.0	22.0		50
Heights	9.4	37.5	17.2	35.9		64
Total	19.0	35.9	19.0	26.2		343

Note: n/a = data not available

- 15.2. Overall, 19% of those who responded thought they would stay less than 2 years and a further 36% thought they would stay between two to five more years. This means that over half (54.8%) of households expect to remain in their current properties for less than 5 years indicating that Bolnore is likely to see a continual renewal of its population.

16. Planned duration by arrival date

16.1. 341 households provided information on both their date of arrival at their current address and how many more years they expected to remain at their current address. These data are shown in Table 12a and 12b below.

Table 12a – planned duration by year of occupation (number)

Year of Arrival	Further Duration				Total
	< 2 years	2-5 years	6-9 years	10+ years	
2001	1	2	1		4
2002	3	8	5	8	24
2003	10	16	16	13	55
2004	13	29	9	19	70
2005	21	15	10	8	54
2006	17	52	24	41	134
Total	65	122	65	89	341

Table 12b – planned duration by year of occupation (percentage)

Year of Arrival	Further Duration				Total
	< 2 years	2-5 years	6-9 years	10+ years	
2001	25.0	50.0	25.0	0.0	100.0
2002	12.5	33.3	20.8	33.3	100.0
2003	18.2	29.1	29.1	23.6	100.0
2004	18.6	41.4	12.9	27.1	100.0
2005	38.9	27.8	18.5	14.8	100.0
2006	12.7	38.8	17.9	30.6	100.0

16.2. Whilst it might have been anticipated that the most recent arrivals would have reported the longest expected further duration of stay – this is not the case. For example, two thirds (66.7%) of those who arrived in 2005 expected to stay five years or less compared to just under half (47.3%) of those who arrived in 2003.

17. Previous address

- 17.1. All respondents were asked to provide the postcode sector (e.g. RH15 or BN1) for their previous address. 345 households provided this information, however for one of these the postcode sector was not legible so this analysis is based on 344 households. Unsurprisingly, 111 (32%) of households report their previous postcode sector to be RH16 (Haywards Heath). However, for some of these their previous address was elsewhere in Bolnore as a number of residents have moved from properties elsewhere in the village. A further 68 households have come from elsewhere in Mid-Sussex (Burgess Hill, Cuckfield, East Grinstead and Hassocks). Thirty households report their previous postcode sector to be elsewhere in West Sussex (but outside Mid Sussex) for example in Crawley or Horsham; and a further 36 report to have moved to Bolnore from East Sussex (including Brighton, Eastbourne and Newhaven). Twenty nine households gave their previous postcode sector as London (East, North, South East, South West and West). There were 25 from Surrey (e.g. Croydon, Kingston, Redhill). The remaining 46 are from elsewhere across the UK (including Devon, Kent, Hampshire, Norfolk, Oxfordshire and Scotland) and overseas.

18. The remainder of Bolnore Phases 1-3

- 18.1. It is not easy to extrapolate from the 352 households in this sample to the rest of the existing properties in Phases 1-3 and then to the remainder which are still being built in these first three phases. On the basis that planning permission has been approved for 849 properties in the first three phases our sample represents 41% of what will ultimately be built/occupied. We would not necessarily expect that the total number of children under 16 upon completion of the three phases would increase by 141% relative to our sample (i.e. 334 children (including 16 pregnant) in 352 properties if scaled proportionately would give 806 children under 16 in 849 properties). However, it can be assumed that these additional properties would be expected to contain a significant number of additional children – with perhaps a further 472 as the upper level (806-334). There is also no reason to assume that the age profile of those children is likely to be any different from that in the existing sample. So if there were 806 children aged under 16 when Phases 1-3 were completed and occupied we would expect this to mean that there would be some 712 children of primary school age or less.
- 18.2. The attraction of Bolnore Village to families will of course increase or decrease depending on the availability of amenities and facilities and whether or not Bolnore ultimately becomes the “sustainable” community demanded by PPS1.
- 18.3. Progress has been made on other aspects of the sustainability of the development. Shops at Bolnore are finally opening as this report is being written and discussions are underway regarding the community centre and recreational site. However a primary school at Bolnore is still uncertain. It may be that many families who have bought at Bolnore to date have done so on assumption that a primary school would be built on the reserve site (as highlighted in Crest Nicholson’s marketing material); if there were sufficient need. The findings of this report clearly demonstrate that there is current need and future demand for a primary school; and the County Council are likely to have to make a decision on this within the next 12 months or so. If the decision is made to build a primary school at Bolnore then the local demand for current and future family homes is likely to increase. Importantly, this will not be confined only to Bolnore – neighbouring wards (in particular Ashenground) which are currently dominated

by older residents may find their demography adjusting sharply as families look to move within reach of a local primary school.

19. The future of Bolnore – Phases 4 and 5

- 19.1. Again it is not easy to extrapolate from the existing sample to what Phases 4 and 5 will look like. This is not least because there seems to be no agreement on the number, density, nor type of accommodation that is likely to be built in Phases 4 and 5. What is known is that 30% of the housing stock in Phases 4 and 5 needs to be 'affordable housing' of which 20% will be rented and 10% shared ownership.
- 19.2. If we base the forecast on the addition of a further 560 properties quoted in Stephen Clyne's update report of December 2006 then 30% of this will be affordable housing (that is 168 properties) and the remaining 70% will be privately owned (that is 392 properties). Whilst it is not clear what the size of these properties will be there has been, we understand, evidence provided to the Inquiry into phases four and five of Bolnore Village⁶ that the housing mix will be clustered around properties which average 70m²-80m² – equivalent to a typical 3 bedroom house. The following analysis is therefore based a further 392 privately owned three bedroom properties in phases 4 and 5 – accepting that some properties will be smaller than this and some larger.
- 19.3. There are 125 three bedroom properties in the current sample of households. Of these five are shared ownership and have been excluded. However, it is possible that there are some in the remaining 120 properties are socially rented (but these cannot be separately identified at this stage). A look at the data suggests that the rented properties have a higher tendency to have children than the owner-occupied properties and that when there are children, there tend to be more. This would suggest that some socially rented properties are in this rented group. So the following projection is illustrative.
- 19.4. Tables 13a and 13b below are derived from applying the percentage of 3 bedroom houses with and without children from the existing sample of 352 households and then for those with children, calculating the distribution of children in 3 bedroom properties.

⁶ John Harris for the appellant's planning agents Foxley Tagg, December 2006

Table 13a – Numbers of children in three bedroom properties from existing sample of 352

	3 bedroom properties with and without children under 16 years			3 bedroom properties by number of children aged under 16 years				
	With	Without	Total	1	2	3	4	Total
Number	71	49	120	38	25	7	1	71
Percentage	59.2	40.8	100	53.5	35.2	9.9	1.4	100
Total Children	n/a	n/a	n/a	38	50	21	4	113

Note: n/a = not applicable

Table 13b – Estimate of additional numbers of children if Phases 4&5 centred around 392 three bedroom properties

	3 bedroom properties with and without children under 16 years			3 bedroom properties by number of children aged under 16 years				
	With	Without	Total	1	2	3	4	Total
Number	232	160	392	124	82	23	3	232
Percentage	59.2	40.8	100	53.5	35.2	9.9	1.4	100.0
Total Children	n/a	n/a	n/a	124	163	69	13	369

Note: n/a = not applicable

19.5. Based on the current sample of 352 households, there are 71 three bedroom properties which contain children, out of 120 3-bedroom properties in total. These 71 properties contain a total of 113 children. If we apply these percentages to the potential 392 typical three bedroom properties in Phases 4 and 5 then we would expect 232 of them to contain children. If these 232 properties contain the same ratio of families with one, two, three and four children under 16 then we would expect in total a further 369 children under age 16 to be living in Phases 4 and 5. This is a very similar magnitude to the number of children we have living in Bolnore in the current sample.

- 19.6. These estimates do not of course fully capture the extent of possible need in Phases 4 and 5 as a result of the higher child yield in social housing nor does it begin to capture the future growth of Phases 4 and 5 as a result of families growing to achieve their desired family size. As shown by the empirical data from the sample of 352 households future family growth has the potential to increase the number of children by a further 75 percent – which would potentially increase the number of children aged under 16 in Phases 4 and 5 by an additional 275 some five to 15 years after building work begins.

20. Bolnore completed – the overall need for a primary school

- 20.1. The table 14a below illustrates how the Bolnore population of primary school age might look over the coming years if the same ratios as found in the sample are applied across the remainder of Phases 1-3 and Phases 4&5. For the remainder of Phases 1-3 we have taken the same start point as 2006 (on the grounds that the majority of properties are already built or soon will be – although it could be argued that we could have started a few years later. For Phases 4 and 5, on the assumption that building begins in 2008 we have started to apply data from 5 years after that as that would be a similar point in the evolution of Phases 4 and 5 as we currently have in our sample from Phases 1-3 (again we would have started at an earlier point as we would of course expect families to occupy from the point the first properties are completed).
- 20.2. Table 14b illustrates how the Bolnore population of primary school age might look in the remainder of Phases 1-3 and Phases 4 and 5 achieved only 50% of the children in each year group that we found in the sample. Even based on this lower level estimate the case for a primary school at Bolnore is overwhelming. In deed, the data suggest that a primary school of just one class per year group (totalling 210 pupils across the 7 year groups) would not be sufficient to meet the needs of Bolnore.
- 20.3. The true figures probably lie somewhere between the levels shown in tables 14a and 14b. Of course this will only be known by either repeating the survey in a few years time (which will allow us to get a handle again both on current need and future demand) or by waiting to see how the development, and ultimately the number of children of primary school age, evolve as they commence their formal education.

Table 14a – Extrapolation of current need and future demand for a primary school at Bolnore based on scaling-up the figures from the current sample.

	Sample of 352 households		Balance of Phases 1-3 (further 497 properties)		Phases 4&5 (further 560 properties)		Total	
	Number in reception	Total in school	Number in reception	Total in school	Number in reception	Total in school	Number in reception	Total in school
September:								
2006	19	114	27	161	0	0	46	275
2007	28	122	40	172	0	0	68	294
2008	35	146	49	206	0	0	84	352
2009	38	166	54	234	0	0	92	400
2010	39	194	55	274	0	0	94	468
2011	27	207	38	292	0	0	65	499
2012	24	210	34	297	0	0	58	507
2013	24	215	34	304	30	181	88	700
2014	24	211	34	298	45	194	103	703
2015	24	200	34	282	56	232	114	714
2016	24	186	34	263	60	264	118	713
2017	24	171	34	241	62	309	120	721
2018	24	168	34	237	43	329	101	734
2019	24	168	34	237	38	334	96	739
2020	24	168	34	237	38	342	96	747
2021	24	168	34	237	38	336	96	741
2022	0	144	0	203	38	318	38	665
2023	0	120	0	168	38	296	38	584

2024	0	96	0	136	38	272	38	504
2025	0	72	0	102	38	267	38	441
2026	0	48	0	68	38	267	38	383
2027	0	24	0	34	38	267	38	325
2028	0	0	0	0	38	267	38	267

Table 14b – Extrapolation of current need and future demand for a primary school at Bolnore based on applying 50% of the figures from the current sample.

September:	Sample of 352 households		Balance of Phases 1-3 (further 497 properties)		Phases 4&5 (a further 560 properties)		Total	
	Number in reception	Total in school	Number in reception	Total in school	Number in reception	Total in school	Number in reception	Total in school
2006	19	114	14	81	0	0	33	195
2007	28	122	20	86	0	0	48	208
2008	35	146	25	103	0	0	60	249
2009	38	166	27	117	0	0	65	283
2010	39	194	28	137	0	0	67	331
2011	27	207	19	146	0	0	46	353
2012	24	210	17	149	0	0	41	359
2013	24	215	17	152	15	91	56	458
2014	24	211	17	149	23	97	64	457
2015	24	200	17	141	28	116	69	457
2016	24	186	17	132	30	132	71	450
2017	24	171	17	121	31	155	72	447
2018	24	168	17	119	22	165	63	452
2019	24	168	17	119	19	167	60	454
2020	24	168	17	119	19	171	60	458
2021	24	168	17	119	19	168	60	455
2022	0	144	0	102	19	159	19	405

2023	0	120	0	84	19	148	19	352
2024	0	96	0	68	19	136	19	300
2025	0	72	0	51	19	134	19	257
2026	0	48	0	34	19	134	19	216
2027	0	24	0	17	19	134	19	175
2028	0	0	0	0	19	134	19	134

21. Conclusion

- 21.1. All of the above analysis suggests that Bolnore needs a primary school and that this needs to be agreed as soon as possible as the size of school year cohorts are increasing year-on-year. The case for a primary school at Bolnore can be made even on the basis of the 352 properties sampled in this survey. This does not even take account of the remaining 300 or so properties currently in Bolnore which were not surveyed as part of this work, nor the approximately 200 properties that are still to be completed/built in Phases 1-3; let alone what will finally come as a result of Phases 4 and 5 – although all these additional properties will of course contribute to the long-term sustainability of a primary school over the coming decades. The future of Bolnore as a “sustainable community”, indeed the future sustainability of the surrounding environment, is entirely dependent on planning consent being agreed for a primary school.
- 21.2. The evidence of Stephen Clyne was made available to the Bolnore Schools Group at the conclusion of this analysis. We accept that Mr. Clyne is very constrained in his choice of data – no empirical data other than our own appears to be readily available. It might be that were this data available earlier, Mr. Clyne’s conclusions would have been very different. In the light of our own data we are driven to conclude that no weight at all should be placed on Mr. Clyne’s evidence.