

# West Midlands Care Home Dental Survey 2011: Part 1. Results of questionnaire to care home managers

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## IN BRIEF

- Investigates a section of the population (care home residents) not normally included in surveys of adult dental health surveys.
- Considers a number of issues in relation to the provision of dental services for older adults.

**Aim** To provide baseline data on dental issues affecting residents from the perspective of care home managers to inform oral health local needs assessments and commissioning decisions. **Methods** A pre-piloted postal questionnaire was sent to all identified managers of adult care homes (1,832) in the West Midlands between February and April 2011. Quantitative analysis was complemented by seeking the views of care home managers regarding training and experience of, and access to, dental services. **Results** The response rate to the study was 63.9% (1,170/1,832). There were 194 responding care homes who reported that residents had problems accessing dental services. Nearly double the proportion of nursing care homes and care homes with residents with elderly mental impairment (EMI) reported problems accessing dental services compared with care homes without nursing care and non-EMI care homes. Issues raised included patient safety concerns, reservations regarding expertise of dental staff, difficulties with transporting residents and waiting times for treatment. **Conclusion** The survey provided a snapshot of dental issues as reported by care home managers, these results should help inform both the dental profession and those who commission services about issues affecting the oral health of patients living in care homes.

## INTRODUCTION

The 2010/11 NHS National Dental Epidemiology Programme for England<sup>1</sup> (now superseded by the Public Health England, Dental Public Health Intelligence Programme) advised that each region (strategic health authority area) would determine local activities for dental epidemiology.

It is widely recognised that the ageing population presents an increasing number of challenges to the dental profession. After discussions with the West Midlands dental commissioning leads it was agreed that the region would focus on adult care home residents. The West Midlands Care Home Survey had two components: a postal questionnaire to managers and a clinical examination of residents. This paper reports on the questionnaire and part two of this series will report on the clinical survey and findings.

## Background

Life expectancy in the UK is improving and this trend is projected to continue with the number of people aged 80 and over estimated to more than double to 6 million by 2037.<sup>2</sup> A greater proportion of this population is also retaining natural teeth for longer.<sup>3</sup> The 2009 National Adult Dental Health Survey (ADHS) reported that 77% of people aged 75 and over had at least one natural tooth, an increase of 23% since 1998.<sup>3</sup> The ADHS is vital to our understanding of the population's dental health and changing patterns of disease; however, its sampling framework is based upon private households and does not include people living in residential accommodation.

The evidence available suggests that care home residents have high levels of unmet oral need.<sup>4-6</sup> Oral health needs will be directly and indirectly influenced by a number of medical and social issues. For example there are a number of medications which can cause a dry mouth and thus increase the risk of caries,<sup>7</sup> self-care can become more difficult for those with physical or neurological impairment and a lack of mobility may impede access to dental services.<sup>8,9</sup> The oral health needs and issues affecting dental care among this vulnerable population need to be understood by the dental profession, care staff and commissioners to inform planning and the improvement of services.

## AIM

To provide baseline data on dental issues affecting residents from the perspective of care home managers to inform local needs assessments and commissioning decisions.

## Objectives

- Develop and pilot the questionnaire
- Circulate questionnaire and provide support to local commissioners to address any immediate issues raised via the questionnaire
- Collate and analyse results
- Present results to local stakeholders and disseminate further to relevant audiences.

## METHOD

### Sample

The West Midlands Government Office provided a list of care homes across the West Midlands, including details of the care home manager, address and telephone number. The database was updated as further information regarding care home closures and new homes became available via PCT epidemiology leads.

### Development of questionnaire

The researchers sought comments from PCT dental commissioning leads, dental public health consultants, community dental services and public health colleagues to identify

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initial themes to be included in the questionnaire. Further feedback was sought during development of the questionnaire. Previous care home questionnaire surveys<sup>10-12</sup> were also used to guide development of the final questionnaire. The final questionnaire contained 19 questions under three headings (oral health policies and procedures, dental services and staff training) and was piloted with four care homes in Birmingham.

**Circulation of questionnaire**

The final questionnaire plus a cover letter and a reply-paid envelope was circulated to all care homes between February and April 2011. The documentation was re-sent to non-responders two weeks after the initial mailing. Non responding care homes were contacted by telephone two weeks after the second mailing and a further questionnaire was sent if necessary. Responses were entered into Dental Survey Plus 2 (DSP2)<sup>13</sup> by PCT epidemiology leads.

**Data analysis**

The data was visually inspected, checked for inaccuracies and duplicates and the cleaned records were analysed using Excel<sup>14</sup> and Stata version 11.<sup>15</sup> Free text was reviewed by two researchers so themes from the feedback could be identified. Results were analysed by location of care home (local authority) and type of care home. Care home postcodes were used to assign each care home into a deprivation quintile using the English Index of Multiple Deprivation 2007.<sup>16</sup>

Where appropriate,  $\chi^2$  and unpaired t-tests were used to determine differences in known characteristics between responding and non-responding care homes. The unpaired t-test was also used to compare results from different sub-groups of care homes.

**RESULTS**

**Participation**

Of all care homes across the West Midlands, 63.9% (1,170/1,832) responded to the survey. Results were analysed by upper tier local authority area (Table 1). The highest response was in Herefordshire (86.8%) and the lowest response was in Birmingham (39.4%). Care homes in the most deprived local authorities were less likely to respond (55.8%) compared with those in the least deprived local authorities (71.1%).

**Type of care home**

Of the care homes who responded, 44.2% (517/1,170) reported that they cared for elderly residents with mental impairment (EMI care homes). The remaining care homes reported that they did not have

**Table 1 Responding care homes by local authority**

Unitary/upper tier local authority	Total number of care homes	Total number of care homes who responded	Response rate (%)	Total number of beds in responding care homes	Number of beds in responding care homes as a % of total number of beds in all care homes (%)
Birmingham	330	130	39.4	2,586	41.1
Coventry	74	48	64.9	1,195	64.7
Dudley	115	71	61.7	1,778	67.2
Herefordshire	91	79	86.8	1,699	87.2
Sandwell	86	64	72.7	1,378	66.9
Shropshire	127	107	84.3	2,941	82.2
Solihull	65	48	73.8	867	59.3
Staffordshire	255	181	71.0	5,254	71.4
Stoke on Trent	81	59	72.8	1,458	70.7
Telford and Wrekin	50	38	76.0	907	76.8
Walsall	73	44	60.3	1,039	57.1
Warwickshire	184	127	69.0	3,155	71.5
Wolverhampton	86	56	65.1	1,422	62.6
Worcestershire	215	118	54.8	2,962	55.9
<b>West Midlands</b>	<b>1,832</b>	<b>1,170</b>	<b>63.9</b>	<b>28,556</b>	<b>64.5</b>

**Table 2 Total access by type of care home**

Type of care home	Dentists visit care home		Dentists visit care home AND Residents visit dental practice		Residents visit dental practice		Question not answered		Total
	Count	%	Count	%	Count	%	Count	%	
EMI	228	44.1%	151	29.2%	127	24.6%	11	2.1%	517
Non EMI	119	19.0%	122	19.4%	368	58.6%	19	3.0%	628
Nursing Home	140	47.9%	80	27.4%	63	21.6%	9	3.1%	292
Non-nursing Home	203	24.0%	192	22.7%	439	51.9%	12	1.4%	846

**Table 3 Reported problems in access by type of care home**

Type of responding care home	Reported problems in access		No reported problems in access		Question not answered		Total
	Count	%	Count	%	Count	%	
All care homes	194	16.5%	907	77.3%	72	6.2%	1,170
EMI	122	23.6%	363	70.2%	32	6.2%	517
Non-EMI	72	11.0%	544	83.3%	37	5.7%	653
Nursing home	79	27.1%	195	66.8%	18	6.2%	292
Non-nursing home	110	13.0%	694	82.0%	42	5.0%	846

Please note: these categories are not mutually exclusive i.e. care homes which responded fully to the questionnaire will have reported if they have nursing beds and if they care for EMI residents or not. 32 care homes did not answer what beds were available (e.g. number of nursing beds).

residents with elderly mental impairment (653/1170). Other care homes reported that they looked after residents in a number of different categories which included physical disability, learning disability and alcohol

dependency. These categories were not mutually exclusive.

Care homes were also asked to report the types of bed available; of the care homes who completed this question 72.1% (821/1,138)

reported that they only had residential beds, 25.7% (292/1,138) reported that they had at least one nursing bed and 4% of responding care homes (46/1,138) reported that they had one or more 'other' beds. 'Other' beds were described as 'respite', 'rehabilitation', 'intermediate', 'dementia' and 'palliative'. These categories were not mutually exclusive.

### Oral health policies and procedures

Nearly two thirds (61.3%) of responding care homes reported that an oral health assessment was included in the admissions process; approximately a third (31.6%) reported that an oral health assessment was not included in the admissions process and 7.1% did not answer this question. Nearly nine out of ten (89.7%) of responding care homes reported that they had residents who needed help with oral care. Ninety care homes did not answer the question (7.7%) and in five local authority areas, all care homes who responded reported that they had residents who needed help. However, it is unknown if others who did not respond did not do so because they did not have any residents who needed help or did not respond for another reason. Thirty care homes reported that they did not have any residents who needed help with oral care (2.6%). There was a statistically significant difference ( $p < 0.05$ ) in the proportion of EMI care homes who reported that they had residents who needed help with oral care (94%) compared with non-EMI homes (86.2%). There was no statistically significant difference between nursing care homes (93.2%) and care homes without nursing (89.4%).

### Dental services – type of services

In EMI and nursing care homes (Table 2) the majority of responding care homes reported that a dentist visits the care home (73.3% and 75.3% respectively). In non-nursing or non-EMI care homes, the majority of care homes report that residents visited dental practices (78.0% and 74.6% respectively).

### Dental services – access

Accessing dental services was not an issue for the majority of responding care homes (77.3%); however, 194 care homes (16.5%) reported that residents had problems accessing dental services (Table 3). Seventy-two care homes (6.2%) did not answer the question but it is not possible to ascertain from the data whether this non response was due to there being no problems to report. A statistically significant higher proportion of nursing and EMI care homes reported problems with dental access compared with care homes without nursing and non-EMI care homes ( $p < 0.05$ ).

### Dental services– issues and concerns

The majority of responding care homes (978/1,170) reported that they did not have any issues or concerns with any dental provider but 97 care homes (8.3%) reported some issues or concerns with at least one in every local authority area. There were 65 care homes that reported an issue or concern with a dental care provider and also reported problems in accessing dental services.

A statistically significant higher proportion of nursing and EMI care homes (12.7% and 11.2% respectively) reported that they had issues or concerns; this was nearly double the proportion of care homes without nursing care and non-EMI care homes (6.9% and 6.0% respectively) which had concerns ( $p < 0.05$ ).

Issues or concerns reported by care homes regarding domiciliary care included: *'Dentist not changing gloves between residents. Extraction performed in a corridor.'*

There were also some more general concerns regarding the type of dentistry carried out and the expertise of dental staff:

*'Sometimes I feel that the very bare minimum in dentistry is done, for instance the appearance of people with learning disability is not taken into account so a missing front tooth would not be considered for replacement'*

*'Some of the staff are not good with elderly patients and also treat the nursing home staff with an off-handed attitude.'*

Care homes reported that it was not always easy to access dental services: *'Most dental practices have upstairs surgeries. Residents struggle to walk upstairs. Really need dentist to visit home but unable to obtain one.'*

The need for transport (possibly suitable for wheelchair use) and carers to attend with the patient were also cited as reasons for the need for domiciliary care: *'(Problems in) accessing domiciliary visits as not always able to access transport for resident.'*

Waiting times for treatment were also highlighted as an issue:

*'If people we support require dental treatment – such as extractions/filling etc due to broken teeth etc they are put on a waiting list which can take up to 6 months for treatment as GAs are required. This is unacceptable as the people we support may be experiencing extreme pain for many months.'*

*'We have had a 7 month wait before treatment was carried out.'*

Private domiciliary call out fees were also raised as an issue: *'Difficult to find one to carry out domiciliary visits without charging fee for call out.'*

Some care homes reported an expectation of free treatment for all care home residents:

*'The problem has been accessing an NHS dentist who will be able to provide a free service to our elderly people. I contacted the PCT a while*

*ago but I'm still waiting for an answer. Without a visiting NHS dentist the dental care is very poor indeed.'*

*'Free service does not exist for (post code)'*

There was also some positive feedback: *'It has been difficult until recently to have dental check-ups and treatment at the home. The service to us has 100% improved – thank you.'*

### Staff training

The survey showed that there was a perceived need for help with training; 39.7% of care homes (464) said that they would like support with staff training.

There were a number of comments which indicated a need for general training for staff:

*'There needs to be more staff training for all aspects of oral health and dental services. Oral health with the elderly is neglected compared to other health issues.'*

There were also specific requests for training, especially around providing care for challenging residents. This included communication skills, signs of mouth problems in residents unable to communicate and providing care for residents who lack capacity to consent to assistance with oral care.

### DISCUSSION

This survey provides a snapshot of the views of care home managers regarding dental issues which provides useful information for local commissioning of oral health improvements programmes and dental services for the resident care home population.

### Response rate

The overall response rate was 63.9%. At the time of the survey care homes were in the process of registering with the Care Quality Commission. Caution should be particularly exercised in interpreting local results with low response rates. As the survey was not anonymous, this may have also affected the results. It is important to note that the type and number of care homes will change over time; the original database used in this survey was only therefore a reflection of the situation at that particular point in time.

### Oral care in care homes

The survey found that only 61.3% of responding care homes reported that they carried out an oral health assessment at the time of admission yet 89.7% of responding care homes said that they had residents who needed help with oral care. Personal care (including oral care) is a regulated activity under the Health and Social Care Act<sup>17</sup> and an assessment of need for care is necessary in order to plan appropriately. Once an oral health plan has been formulated it is essential that care home staff are able to assist or

carry out appropriate oral hygiene for residents to help maintain good oral health. The results from this survey suggest that a significant proportion of care homes would like to have further oral health training; improving the ability of staff to perform oral hygiene would help enable staff to provide an oral health assessment and devise an appropriate oral care plan which is delivered to a good standard to help to avoid preventable oral health diseases in care home residents.

### Access and appropriate uptake of available services

Similar barriers to care highlighted in this survey have been reported elsewhere.<sup>10–11</sup> The perception of availability of specialist or domiciliary services may or may not reflect the actual availability of services. As care homes reported that they often contact local dental services it is important that both dental practices and care homes are informed of specialist and domiciliary care arrangements in their area.

The survey was sent to all known adult care homes in the West Midlands so it allowed commissioners to identify the number and identity of care homes that reported that they had problems in accessing dental services. In total, 16.5% of responding care homes reported that they had problems in accessing dental services whereas in a recent Welsh survey<sup>12</sup> 39.9% of responding care homes reported that they 'had experienced at least some difficulties in accessing routine care'. However, caution should be used in comparing these results as the survey questions were not the same. The proportion of nursing and EMI care homes which reported problems in accessing dental services or issues/concerns with dental services was approximately double the proportion of non-nursing and EMI care homes experiencing similar problems. This may, in part, reflect the fact that a higher proportion of residents in EMI and nursing care homes may need and/or request specialist or domiciliary services.

Ensuring the availability of adequate specialist services and clear pathways into care is essential for this vulnerable population. Concerns about waiting times and the need for more specialised services should be considered by local commissioners.

Transport issues were highlighted as reasons for requesting domiciliary care. A need for adapted transport is not, on its own, an indication for domiciliary care. If at all possible, dental care provided in a dental surgery is preferable to domiciliary care.<sup>9</sup> For care home residents who are able to leave the care home and able to travel the requisite distance to a suitable clinic,

arrangements should be made to facilitate a dental appointment at a suitable surgery with equipment and expertise. A screening or triage service may be useful in directing patients to the appropriate service.

The cost of dental treatment (both private and NHS) was also raised as an issue. NHS patients do not pay a 'call out' fee for domiciliary care but, unless exempt from dental charges, patients will pay the same amount for dental care as if treated in a dental surgery. Care home residents may choose private care but it should not be because they cannot access NHS care. There was an expectation by care home managers in some care homes that all residents should receive free NHS care. Under NHS patient charge regulations in place at the time of the survey<sup>17</sup> there was no automatic exemption on the basis of age or residence for care home residents although some may have qualified on other grounds.

### Quality of available services

Care homes also need to be aware of how to raise concerns about dental services. The survey provided an opportunity for care homes to highlight specific issues including, in some cases, significant patient concerns which had not been raised through other routes. The relevant commissioners were informed so they could consider appropriate action. A letter was also sent from the regional Director of Public Health to all commissioners of care homes and dental services highlighting the issues raised in the survey and providing support and further information to help prevent similar concerns.

### CONCLUSION

The survey provided a snapshot of dental issues as reported by care home managers and found that although the majority of care homes reported that they had no issues, there were some issues with access and significant concerns highlighted with some dental services being delivered to a vulnerable population which had to be addressed. The results of this survey should help inform both the dental profession and those who commission services about issues affecting the oral health of patients living in care homes. After the local release of results a number of PCTs took action such as development of care pathways and oral health toolkits for care homes. The clinical survey results (Part 2) will inform our understanding of the needs of care home residents and the services required.

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1. Rooney E, Perkins C. *NHS Dental Epidemiology Programme for England Report June 2010*. NHS Dental Epidemiology Programme for England, 2010. Online report available from [http://www.nwph.net/dentalhealth/reports/NHS\\_Dental\\_Epidemiology\\_Programme\\_for\\_England\\_Report\\_June\\_2010.pdf](http://www.nwph.net/dentalhealth/reports/NHS_Dental_Epidemiology_Programme_for_England_Report_June_2010.pdf) (accessed September 2015).
2. Office for National Statistics 2013. *Annual Mid-year Population Estimates 2012*. London: The Office for National Statistics. Statistical bulletin available at: [http://www.ons.gov.uk/ons/dcp171778\\_367167.pdf](http://www.ons.gov.uk/ons/dcp171778_367167.pdf). [Accessed September 2015].
3. Steele J, O'Sullivan I. *Executive Report: Adult Dental Health Survey 2009*. London: The Health and Social Care Information Centre, 2011. Online report available at: <http://www.hscic.gov.uk/searchcatalogue?productid=328&eq=adult+dental+health+survey&topics=1%2fPrimary+care+-services%2fDental+services&sort=Most+recent&size=10&page=1#top> [accessed September 2015].
4. Ferro R, Besostri A, Strohmeier L *et al*. Oral health problems and needs in nursing home residents in Northern Italy. *Community Dent Health* 2008; **25**: 231–236.
5. Samson H, Strand G.V, Haugejorden O. Change in oral health status among the institutionalized Norwegian elderly over a period of 16 years. *Acta Odontol Scand* 2008; **66**: 368–373.
6. Sweeney M.P, Williams C, Kennedy C, Macpherson L.M, Turner S, Bagg J. Oral health care and status of elderly care home residents in Glasgow. *Community Dent Health* 2007; **24**: 37–42.
7. Singh M, Tonk R S. Dietary considerations for patients with dry mouth. *Gen Dent* **2012**: 188–189.
8. Fiske J, Griffiths J, Jamieson R, Manger D. *Guidelines for oral health care for long stay patients and residents*. British Society for Disability and Oral Health 2000. Online report available from <http://onlinelibrary.wiley.com/doi/10.1111/j.1741-2358.2000.00055.x/pdf> (accessed September 2015).
9. Lewis D, Fiske J. *Guidelines for the delivery of a domiciliary oral health care service*. British Society for Disability and Oral Health, 2009 Online report available from [http://www.bsdh.org.uk/guidelines/BSDH\\_Domiciliary\\_Guidelines\\_August\\_2009.pdf](http://www.bsdh.org.uk/guidelines/BSDH_Domiciliary_Guidelines_August_2009.pdf) (accessed September 2015).
10. White V A. A, Edwards M, Sweeney M.P, Macpherson L M D. Provision of oral healthcare and support in care homes in Scotland. *J Disability Oral Health* 2009; **10**: 99–106.
11. Belsi A, Gonzalez-Maffe J, Jones K, Wright D, Gallagher J E. Care home managers' views of dental services for older people living in nursing and residential homes in inner city London. *Community Dent Health* 2013 **30**: 77–82.
12. Welsh Oral Health Information Unit, Cardiff School of Dentistry. *Nursing and residential care home oral health policy and access to dental care survey April 2006–2007*. Cardiff. Welsh Oral Health Information Unit Cardiff School of Dentistry 2008. Online report available from <http://www.cardiff.ac.uk/research/explore/research-units/welsh-oral-health-information-unit>.
13. University of Dundee Applied Computing, Dental Survey Plus Version 2. University of Dundee, Dundee. Computer Software.
14. Microsoft, Microsoft Excel. Redmond. Washington. Microsoft 2011. Computer Software.
15. StataCorp, *Stata Statistical Software: Release 11*. Statacorp 2009. College Station, TX: Computer Software.
16. Department for Communities and Local Government *English indices of deprivation 2010: overall*. London. Department for Communities and Local Government, 2011. Online Microsoft Excel Spreadsheet available from <https://www.gov.uk/government/statistics/english-indices-of-deprivation-2010> (accessed September 2015).
17. Health and Social Care Act 2008 (Regulated Activities) Regulations 2010. SI 781. London: TSO, 2010.
18. The National Health Service (Dental Charges) Regulations 2005 SI 2005/3477. London: TSO, 2005.