

End-of-life conversations and care: an asset-based model for community engagement

Mary Matthiesen,¹ Katherine Froggatt,² Elaine Owen,³ John R Ashton^{4,5}

For numbered affiliations see end of article

Correspondence to

Mary Matthiesen, The Conversations for Life Programme, Stories to Change, CIC, Staveley, Cumbria LA8 9LR, UK; mary@conversationsforlife.co.uk

Received 9 May 2013

Revised 9 October 2013

Accepted 5 November 2013

ABSTRACT

Background Public awareness work regarding palliative and end-of-life care is increasingly promoted within national strategies for palliative care. Different approaches to undertaking this work are being used, often based upon broader educational principles, but little is known about how to undertake such initiatives in a way that equally engages both the health and social care sector and the local communities. An asset-based community engagement approach has been developed that facilitates community-led awareness initiatives concerning end-of-life conversations and care by identifying and connecting existing skills and expertise.

Aims (1) To describe the processes and features of an asset-based community engagement approach that facilitates community-led awareness initiatives with a focus on end-of-life conversations and care; and (2) to identify key community-identified priorities for sustainable community engagement processes.

Methods An asset-based model of community engagement specific to end-of-life issues using a four-step process is described (getting started, coming together, action planning and implementation). The use of this approach, in two regional community engagement programmes, based across rural and urban communities in the northwest of England, is described.

Findings The assets identified in the facilitated community engagement process encompassed people's talents and skills, community groups and networks, government and non-government agencies, physical and economic assets and community values and stories. Five priority areas were addressed to ensure active community engagement work: information, outreach, education, leadership and sustainability.

Conclusions A facilitated, asset-based approach of community engagement for end-of-life conversations and care can catalyse community-led awareness initiatives. This occurs through the involvement of community and local health and social care organisations as co-creators of this

change across multiple sectors in a sustainable way. This approach provides a framework for other communities seeking to engage with public awareness in end-of-life issues.

BACKGROUND

Public awareness work regarding dying, death education, palliative and end-of-life care is an identified priority in strategies and policies worldwide. While there is recognition that this is an important area of action to improve the end-of-life experiences for people and their families by policymakers and palliative care services,¹ public attitudes about these issues are complex.² For example, in England, the End of Life Care Strategy³ identified a need to raise the profile of end-of-life care and to change attitudes to death and dying in society. This has led to a national coalition 'Dying Matters' being established in 2009 under the auspices of the National Council for Palliative Care and to the promotion of an annual Dying Matter's week and the development of extensive information material and community education initiatives. The establishment of coalitions, campaigns and targeted weeks of activity, like these, is seen worldwide (table 1), with increased interest in a number of countries since the mid-2000s.

These initiatives have arisen from the palliative care world, and there is often a clear focus on the promotion of advance care planning within a health system context (Canada, USA, Ireland). Health and social care professionals have usually led these initiatives, rather than members of the public themselves. These initiatives raise the profile of public awareness work among policymakers and health and social care professionals with a focus on specific health-related activities. However, there



CrossMark

To cite: Matthiesen M, Froggatt K, Owen E, *et al.* *BMJ Supportive & Palliative Care* Published Online First: [please include Day Month Year] doi:10.1136/bmjspcare-2013-000516

Table 1 International examples of national public awareness activity

Country	Activity	Date started	Website
England	<ul style="list-style-type: none"> ▶ <i>Dying Matters</i> national coalition led by National Council for Palliative Care ▶ Annual public campaign <i>Dying Matters</i> week: ▶ Over 27 000 members (individuals and organisations) 	2009	http://www.dyingmatters.org
Scotland	<ul style="list-style-type: none"> ▶ <i>Good Life, Good Death, Good Grief</i> ▶ Annual public campaign week ▶ Under auspices of Scottish Partnership for Palliative Care 	2011	http://www.goodlifedeathgrief.org.uk
USA	<ul style="list-style-type: none"> ▶ National Campaign: <i>The Conversation Project</i> (advance care planning) ▶ National <i>Health Decisions Day</i> (April) since 2008 ▶ State-wide coalitions 	2013 2008	http://theconversationproject.org http://www.nhdd.org
Canada	<ul style="list-style-type: none"> ▶ National <i>Speak Up</i> Campaign (focus on Advance Care Planning) ▶ National ACP Day (April) ▶ Under auspices of Canadian Hospice Palliative Care Association 	2011	http://www.advancecareplanning.ca
Ireland	<ul style="list-style-type: none"> ▶ <i>Think Ahead</i> campaign ▶ Arose from Forum on End of Life in Ireland, 2009 ▶ Pilot <i>Think Ahead</i> projects started in 2011 	2011	http://www.hospicefoundation.ie

are limitations in terms of the impact national campaigns can have upon the local communities where people live.⁴

The emergent field of public health approaches to palliative care^{5–7} offers a way to reframe these activities beyond the healthcare context. A public health approach moves control and power with respect to end-of-life issues away from professionals, arguing that communities can be more proactive in engaging with the broader implications of dying, death and bereavement for those in their midst than institutions.⁸ The rationale for undertaking the following projects was to deliver an approach not previously applied to palliative care, specifically to identify how professionals and local communities could work together to launch integrated, sustainable approaches to end-of-life conversations and care.

Aims

1. To describe the processes and features of an asset-based community engagement approach that facilitates community-led awareness initiatives with a focus on end-of-life conversations and care.
2. To identify key community-identified priorities for sustainable community engagement initiatives.

ASSET-BASED MODEL OF COMMUNITY DEVELOPMENT

The asset-based community development approach (ABCD) has been used internationally in sustainable community development efforts around social issues (ie, poverty, youth development, education).⁹ This model proposes that the way to produce strong community-based projects is to identify and bring together existing community values, resources and expertise: ‘assets’.⁹ The approach aligns with the values of public health approaches to palliative care,

offering an integration of the professional, system and community contexts.

Three principles underpin the ABCD approach: it is asset-based, internally driven and relationship focused.⁷ This is in contrast to many traditional models for change that are based on identifying and ‘fixing’ deficits from the top down. Drawing upon these principles, a model to facilitate the launch of community engagement initiatives focused on end-of-life conversations and care has been developed. The process of facilitated community engagement follows the following four steps: getting started, coming together, action planning and implementation (figure 1).

METHODS

A lead organisation (step 1) acts as the host convener facilitating the processes of planning, funding and sub-contracting as appropriate for each project. The lead organisation identifies willing community ‘hosts’ who arrange a facilitated local community-based event using a trained facilitator (step 2). The facilitated event(s) convene representatives from interested community organisations who engage with different populations related to dying, death and bereavement across the community. The aim of the event is to engage these organisations around a common issue and to collectively map the individual, group and community assets. This then provides a framework for the identification of priority areas where connections, developments and change can occur. On the basis of the event, a community asset report with recommendations by and for all participant groups and organisations is produced.

Participants re-convene to review the report, prioritise and commit to an initial community plan for action (step 3). Included in the plan is a vision for the work alongside specific actions in priority areas of

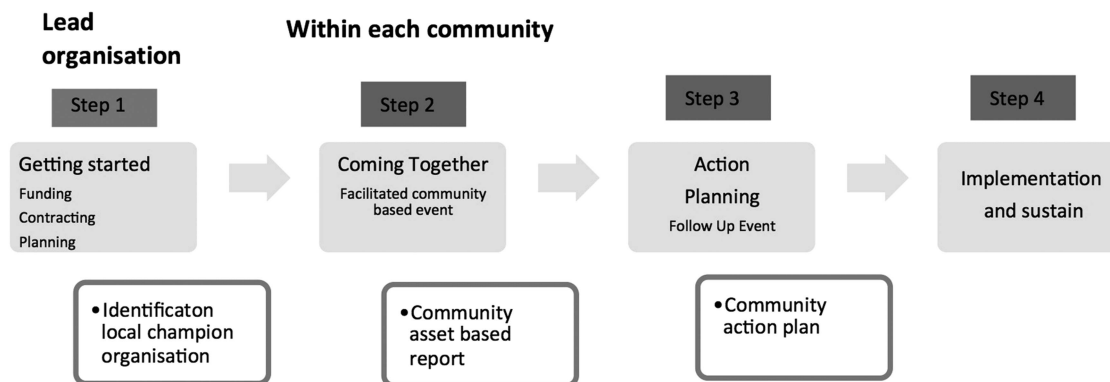


Figure 1 Process of community engagement.

activity. The plan is then implemented (step 4) within the community as each organisation undertakes actions specific to the aims and foci of the collaborative awareness initiative, while addressing plans for sustainability. Throughout the process, the community organisations continue their particular work as they engage with their own clients, patients, families, staff, team and constituencies, yet now as part of a larger community project/plan around end-of-life conversations and care.

CASE STUDIES

The following case studies are illustrative of the processes and elements of an applied asset-based approach used in two regions: (1) a Cumbria county-wide public health public awareness campaign pilot and (2) the engagement of six communities across Merseyside and Cheshire championed by staff from the health and voluntary sector.

Case study 1: Cumbria Conversations for Life

The first case study outlines the development of an innovative public health initiative initiated in response to local health, social care and voluntary agency interest. Cumbria Conversations for Life was a county-wide pilot initiative co-branded and funded by NHS Cumbria (lead organisation) under a Healthy Communities public health initiative. The project had the following aim: to improve awareness about, and increase, advance care conversations among the general population using a public health campaign.

The objectives were to

- ▶ break the taboo of talking about death and dying while healthy
- ▶ help the public consider options and improve access to local resources
- ▶ support people to learn how to begin conversations to influence their care for the future.

'Advance care conversations' refers to a public health approach to conversations between family members preparing for future care needs rather than the completion of specific advance care planning paperwork associated with health bodies.

Given interest from multiple local leaders, and under the auspices of the lead organisation (step 1), the project was led by an independent project lead (MM) and overseen by a multiagency project steering group (local leads) that informed and guided the work. Membership of the steering group represented local hospice and specialist palliative care organisations, primary care, public health, social care and aging. Ethical approval was obtained from the Cumbria County Council Research Ethics Committee.

At a launch meeting of the project steering group, a facilitated mapping of assets, local resources and networks began (step 2). Over the course of eight meetings, the public awareness campaign was planned (step 3) and implemented (step 4). This campaign comprised three elements:

1. Stories: A DVD (*Breaking the Silence*) was produced and presented eight local people's stories of experiences of conversations and care, both with their loved ones, and their own reasons for wanting to talk about and plan for their future.
2. Outreach and information: Branded promotional and resource materials (web and print) were developed for outreach activities. A website provided signposting to national and local information and resources. Posters and flyers were distributed through partner health and social care organisations and agencies. Local media such as radio and newspapers were used to raise the profile of the campaign.
3. Education: Eleven facilitated training workshops about end-of-life conversations and care were held across Cumbria in six locations. The DVD was presented and conversation cards used to facilitate individual awareness, practice talking about these issues and identify personal actions to take arising from the workshop.

An evaluation of each workshop was undertaken using a short survey form and analysed using descriptive statistics and a coding of responses to open questions.

Findings: case study 1

The following outcomes were identified with respect to the public health campaign and workshops over a 3-month period. Radio and regional newspapers

coverage was estimated to have reached 200 000 people with positive media stories. The website had 3645 visitors (23 visitors per day; each person viewed an average of five pages and stayed on the site for an average of 4 min).

The 11 workshops were attended by 93 people. For the 63 participants who gave their age, the age range was between 26 and 88 years. Just under a third (n=18, 29%) were less than 50 years old, the majority (n=34, 54%) were 55–64 years old and a small proportion (n=11, 17%) were over 65 years. Seventy-three (79%) participants were female and twenty (21%) male. Participants comprised both members of the public and professionals. The professional (staff) participants included current and retired nurses and social workers working for healthcare, local authority and third sector organisations. Professional participants expressed an interest in learning how to start conversations both with the public and their own families. Sixty-two participants self-identified as patients (n=8, 13%), family members (n=38, 61%), carers (n=17, 27%), volunteers (n=17, 27%) and others (n=19, 30%). Pilot funding ended at this point.

Case study 2: engaging six communities across one region—Merseyside and Cheshire

The second case study presents an overview of an initiative undertaken in 2011 across Merseyside and Cheshire supported by the Merseyside and Cheshire Cancer Network (MCCN). It draws upon the learning from the Cumbria project, yet used a facilitated asset-based approach to engage six communities to simultaneously lead their own awareness initiatives. The initiating organisation (MCCN) funded and committed to a 1-year programme of activity across Merseyside and Cheshire (step 1) and invited community host organisations to take a lead in their locality. Six community host organisations participated, comprising hospices, voluntary sector and local NHS organisations including public health.

In each of the six localities, the community hosts invited local organisations to participate in a facilitated community convening event (step 2). The organisations that responded were drawn from the health and social care sector, faith groups, carers and support groups, and specific interest groups/associations. At these events, individual, group and community assets were identified and a shared vision for their community was developed.

At a second meeting (step 3), the summarised assets were reviewed by the participants and priority areas for future activity were identified. Across the six MCCN localities, the priorities independently identified in the communities could be classified under one of five priority areas: information, outreach, education, leadership and sustainability. In each of these areas, specific locally appropriate actions were identified and priorities linked to the focus or collaboration between specific organisations and groups. Each of the participating individuals and organisations then

engaged their families, clients, staff, team and respective communities in order to address the actions in ways that suited the people, groups and constituencies in their community (step 4).

Evaluation of delegates following each session, as well as with the six local lead organisations, was undertaken immediately following the events and then 2 months later by the lead organisation.

Findings: case study 2

The activity undertaken across the region led to the involvement of 143 organisations across the six communities. Two areas are presented here: the nature of the assets available in communities and the common priority areas for action.

Nature of assets available in communities

The assets identified in each locality could be categorised under six types of assets and strengths as developed by the ABCD Institute⁷ (table 2). As illustrated here, the assets were both tangible, such as physical resources or skills, alongside less visible, but equally important, assets such as personal values, local beliefs and stories held by individuals, local groups or networks within and between themselves.

Common priority areas for action

The five priority areas for action identified across the six localities in Merseyside and Cheshire were: information, outreach, education, leadership and sustainability. These mirrored the areas of action delivered in Cumbria.

The need for information or making what information was already available more accessible to a wider constituency was present in both case studies. In Cumbria, accessible information and resources were made available through a central website about stories, conversations, planning, care and events. Across Merseyside and Cheshire, participants did not fully know what was available in their own community. They recognised that in order to help the members of their groups to be directed or referred to appropriate services and help, information about the wider assets needed to be more widely known and accessible. This specific priority was illustrated here in one locality's community vision: "We want the people in our community to all know what resources are available to them in their current circumstances" (MCCN Site 4: Community Vision Statement).

Outreach activities focused on both raising the profile of end-of-life issues, death, dying and bereavement, and greater communication between individuals and services. A range of media were used in both case studies from new e-technologies, to print, local radio and the local press, including the development of distinctive brands. In Cumbria, this was delivered as Cumbria Conversations for Life. In Merseyside and Cheshire, local identities were developed:

"One of our community members was an artist who came to a meeting with a piece of art he'd created out

Table 2 Key community assets

Categories of asset types	Examples from six localities in Merseyside and Cheshire
Talents and skills of our people Knowledge, skills, expertise of local people living and working in a community	Medical/clinical skills, nursing Listening skills, counselling Therapies (complimentary) Spiritual care Support, befriending Volunteering: cooking, shopping, dog walking, driving, Photography Project management, IT skills, writing, grant writing
Community groups and networks Informal groups and associations that reach beyond organisational boundaries	Support groups Volunteer network meetings Service network meetings Mailing lists, databases, newsletter lists, events, connections
Government and non-government agencies Range of organisational types represented across a community	Health: PCT, hospices, care homes Local authority: social services Third sector: Age UK, Community Voluntary Services Faith groups, service groups
Physical assets Land/property/buildings/equipment	Meeting rooms, buildings, parks, training centres, equipment (printing), notice boards, internet/intranet, websites, kitchens, tables, chairs, venues, presentation equipment, buses, vans, media outlets, existing community events
Economic assets Productivity of individuals, consumer spending, local business assets	Initial project funding Further financial input from partner organisations Ongoing time from organisations and volunteers Collective contacts to small and large funders
Values Stories, heritage and local identity	Local patient, family, carer experiences and stories Local celebrity stories Local culture and history

of recycled materials. This inspired the name and brand for our local initiative with materials, a website and outreach efforts that followed.” (MCCN Site 6).

Education took multiple forms across case study sites (table 3): formal and informal ‘teaching’ and information giving sessions to care staff and the public, public education through the media outlets described above and planned engagement with workplaces, through payslip inserts.

The importance of leadership and sustainability illustrates a difference between the two cases. Leadership in Cumbria was held by the steering group at a strategic level and used an external project lead to facilitate and direct the work. The pilot was time limited, and further work was undertaken independently by individual partners and projects rather than as a result of ongoing funded multiagency work. The Merseyside and Cheshire case study illustrates how partnerships between community groups and health and social care organisations can provide a dynamic that appears to lead to more sustainable working. The development of community-initiated Living and Dying Well Partnerships, the establishment of community development lead posts, representation by community groups on health and end-of-life care boards and skill share between organisations show early indications of integrating public health approaches into the mainstream system.

IMPLICATIONS

A facilitated asset-based model for community engagement provides a way to catalyse the launch of

community-wide engagement related to end-of-life conversations and care, in ways that reflect a unique locality, services and population. The case studies have demonstrated that communities have existing strengths and assets and want to engage with this issue (death and dying) but often do not know how to begin. It was recognised that community engagement is an activity that requires more than a 1-week-a-year focus and it is not the sole job of any one organisation. Raising community-wide awareness required the involvement of multiple organisations from the start. The initial focus upon the assets within a community was crucial for initial engagement and momentum.¹⁰ An asset (vs deficit) approach provided affirmation to the individuals and organisations participating, and helped them recognise the opportunity working together provided to build upon each other’s strengths.

The asset-based approach described here comprises steps that address information gathering, planning, actions and review (figure 1). These steps are similar to those used in many quality initiatives¹¹ and participatory research.¹² However, this approach sits more clearly in the domain of participatory action research where the issue to be addressed and process are clear at the outset, but not necessarily the means by which this will be achieved.¹³ This has implications for practice, in that clinicians working with communities undertaking this work need to be aware that while the end goal of achieving greater public awareness and engagement is clear, the specific assets, focus, actions or outcomes appropriate to any unique community will not be known at the start. This also has

Table 3 Examples of priority areas for action across the two case studies

Priority area for action	Cumbria	Examples from MCCN
Information	<ul style="list-style-type: none"> ▶ Local resources uploaded on local website ▶ Signposting to available resources in community 	<ul style="list-style-type: none"> ▶ Accessible information and resources shared between organisations in the community: community services directories ▶ Available in print and on line ▶ New links between organisational websites
Outreach activities	<ul style="list-style-type: none"> ▶ Branded website ▶ Print material (flyers, posters) ▶ Radio and newspaper presence ▶ Accessed through use of stories 	<ul style="list-style-type: none"> ▶ Branded promotion for public awareness: locally branded face book page ▶ Active engagement with local media (eg newspapers, radio stations) ▶ Community-wide <i>Dying Matters</i> events ▶ Signposting/referral network between services
Education (public and staff)	<ul style="list-style-type: none"> ▶ Workshops for the public, attended by staff as well ▶ DVD (<i>Breaking the Silence</i>) 	<ul style="list-style-type: none"> ▶ Run education for professionals and public: <i>Starting the Conversation</i> for professionals; advance care planning and wills for public ▶ Payslip inserts ▶ Youth bereavement project ▶ Skill share across organisations through visits ▶ Volunteer training across services ▶ Signposting to training courses
Leadership	<ul style="list-style-type: none"> ▶ Multiagency project steering group 	<ul style="list-style-type: none"> ▶ Identify best informal or formal structure to convene work ▶ Networking meetings ▶ Identify local informal champions ▶ Establish project steering group ▶ Formalise PCT and community organisation relationships ▶ Joint funded community engagement/public health end-of-life care post
Sustainability	<ul style="list-style-type: none"> ▶ Shaped by time limited nature of pilot ▶ Local partner organisations continue their own initiatives ▶ External social enterprise established 	<ul style="list-style-type: none"> ▶ Identify best informal or formal structure to carry on initiative: Living and Dying Well partnerships ▶ Community group recognition on health and end-of-life care boards ▶ Forge links to existing structures/organisations for on-going sustainability ▶ Public health end-of-life care funded posts (in NHS and hospice)

MCCN, Merseyside and Cheshire Cancer Network

implications for the policymakers, funders and lead organisations, who have to be willing to engage with and trust the process, allowing communities to name, develop and personalise approaches and outcomes specific to their context. For researchers, there are also challenges in terms of evaluation processes and lack of agreed outcome measures. To date, evaluations have been limited to internal small-scale work. Future research is required to systematically evaluate the process and long-term outcomes of such initiatives.

CONCLUSIONS

A facilitated process focusing on the assets within a community can catalyse public engagement efforts across sectors at a community level. Resources and strengths (assets) that can support awareness of end-of-life conversations and care exist in varied community organisations, yet these are not always known or connected. Although national campaigns provide a framework and resources for public awareness work, communities and community-based leadership must be aligned with and committed to participating in these aims. As a consequence, both top-down and bottom-up activities are needed. National policy initiatives and regional system support provide a legitimacy and focus, and top-down leadership is essential for funding. However, it is the real and committed engagement of individuals and organisations working across a community that holds the wisdom, skills,

connections and experience required to effect change where people live.

Author affiliations

¹The Conversations for Life Programme, Stories to Change, CIC, Staveley, Cumbria, UK

²International Observatory on End of Life Care, Lancaster University, Lancaster, UK

³Cheshire and Merseyside Clinical Networks, Bromborough, UK

⁴Faculty of Public Health, London, UK

⁵Department of Public Health, NHS Cumbria, UK

Acknowledgements The Cheshire and Merseyside Community Engagement initiative on death, dying and loss was funded by Cheshire and Merseyside Clinical Networks from Multi-Professional Education and Training Levy (MPET) monies from the Department of Health. This initiative was the result of evaluation work undertaken at a local level and with the Dying Matters Coalition and was a recommendation from this.

Contributors MM developed the approaches, planned and co-designed delivery of case studies 1 and 2 with respective coauthors; conducted the facilitated delivery and gathered and reported outcomes from case Studies 1 and 2; ensured ethical approval in case study 1; and drafted the article. She acts as the guarantor of the overall content. KF designed the evaluation and evaluated outcomes for case study 1; reviewed outcomes of both case studies 1 and 2; and drafted the article, including references. EO planned and conducted the oversight and reported outcomes of case study 2 and reviewed the article. JRA planned and ensured the oversight and reported outcomes of case study 1 and reviewed the article from a public health perspective.

Funding NHS Cumbria funded the Cumbria pilot. Lancaster University Faculty of Health and Medicine Strategic Knowledge Exchange Award Supported the writing of this paper. Lancaster University and commissioned project delivery by named case study partners.

Competing interests None.

Ethics approval Cumbria County Research Ethics Committee (for a portion of the study).

Provenance and peer review Not commissioned; externally peer reviewed.

Data sharing statement Any unpublished data related to this study can be requested by contacting any of the relevant contributing authors directly.

REFERENCES

- 1 Paul S, Sallnow L. Public health approaches to end-of-life care in the UK: an online survey of palliative care services. *BMJ Supportive & Palliative Care* 2013;3:196–9.
- 2 Cox K, Bird L, Arthur A, *et al.* Public attitudes to death and dying in the UK: a review of published literature. *BMJ Support Palliat Care* 2013;3:37–45.
- 3 Department of Health. *End of life care strategy—promoting high quality care for all adults at the end of life*. London: DOH, 2008.
- 4 Rosenberg JP, Yates P. Transition from conventional to health promoting palliative care: an Australian case study. In: Conway S, eds. *Governing death and loss: empowerment, involvement and participation*. Oxford: Oxford University Press, 2011:99–108.
- 5 Kellehear A. *Compassionate cities: public health and end of life care*. London: Routledge, 2005.
- 6 Rosenberg JP, Yates PM. Health promotion in palliative care: the case for conceptual congruence. *Crit Public Health* 2010;20:201–10.
- 7 Haraldsdottir E, Clark P, Murray SA. Health-promoting palliative care arrives in Scotland. *Eur J Palliat Care* 2013;17:130–2.
- 8 Abel J, Walter T, Carey LB, *et al.* Circles of care: should community development redefine the practice of palliative care? *BMJ Supportive & Palliative Care* 2013;3:383–8.
- 9 Kretzmann JP, McKnight JL. *Building communities from the inside out: a path toward finding and mobilizing a community's assets*. Evanston, IL: Institute for Policy Research, 1993.
- 10 Cooperrider D, Whitney D. *Appreciative inquiry: a positive revolution in change*. San Francisco, CA: Berrett-Koehler, 2005.
- 11 Lynn J, Nolan K, Kabacene A. Reforming care for persons near the end of life: the promise of quality improvement. *Ann Intern Med* 2002;137:117–22.
- 12 Reason P, Bradbury H. *Handbook of action research: participative inquiry and practice*. 2nd edn. London: Sage Publications, 2008.
- 13 Hockley J, Froggatt K, Heimerl K. Action research: an overview. In: Hockley J, Froggatt K, Heimerl K, eds. *Participatory action research in palliative care: actions and reflections*. Oxford: Oxford University Press, 2013:3–14.



End-of-life conversations and care: an asset-based model for community engagement

Mary Matthiesen, Katherine Froggatt, Elaine Owen, et al.

BMJ Support Palliat Care published online January 2, 2014
doi: 10.1136/bmjspcare-2013-000516

Updated information and services can be found at:
<http://spcare.bmj.com/content/early/2014/01/02/bmjspcare-2013-000516.full.html>

These include:

- | | |
|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| References | This article cites 6 articles, 1 of which can be accessed free at:
http://spcare.bmj.com/content/early/2014/01/02/bmjspcare-2013-000516.full.html#ref-list-1 |
| P<P | Published online January 2, 2014 in advance of the print journal. |
| Email alerting service | Receive free email alerts when new articles cite this article. Sign up in the box at the top right corner of the online article. |
-

Notes

Advance online articles have been peer reviewed, accepted for publication, edited and typeset, but have not yet appeared in the paper journal. Advance online articles are citable and establish publication priority; they are indexed by PubMed from initial publication. Citations to Advance online articles must include the digital object identifier (DOIs) and date of initial publication.

To request permissions go to:
<http://group.bmj.com/group/rights-licensing/permissions>

To order reprints go to:
<http://journals.bmj.com/cgi/reprintform>

To subscribe to BMJ go to:
<http://group.bmj.com/subscribe/>