1. PROJECT NAME

STORUMAN CARES 2050: An options paper for elder care

2. BACKGROUND DESCRIPTION

Storumans Kommun is a challenging environment in which to provide elder care. The Kommun has a high percentage of residents aged 65 years and over (30%). 30% of these are aged over 80 years, and Statistika Centralbyrån (SCB) estimates that this will increase to 40% by 2050. Overall health for older people is improving, but health needs are increasingly complex. This includes increased cases of dementia and other mental illnesses, chronic illness and multiple co-morbidities that mean a demand for care services even when people are able to mostly live independently.

The elderly population is diverse. While there were similar numbers of men and women aged 65 years and over in 2020 (about 850 of each), there were more women aged 80 years and over (300 women compared with 200 men). The female population aged 65 years and over is expected to decline by 10% by 2050, with the number aged 80 years and over remaining at about 300. In contrast, the male population aged 65+ will grow by 3%, and the male population aged 80+ will increase to 300 persons. Males and females have different health care needs, and they also have different living environments, with women twice as likely as men to live alone, but also more likely to live in group housing (elder care institutions etc).

Storumans Kommun has a large population of Sami residents, who have particular care needs, and cultural preferences for particular models of care. The same is true for the increasing population of non-Swedish-born residents (including migrants from Africa and the Middle East). It is estimated that the number of elderly non-Swedish-born residents will increase from about 30 in 2020 to over 100 by 2050.

The population is geographically dispersed, with more than 40% of residents aged 65 years and over living outside of the main service centres of Storuman/Stensele and Hemavan/Tärnaby. They often live in very small villages that are difficult to service with group housing, and are difficult to access for home care visits. During winter, home care visits may be prevented by weather conditions.

Increasing need for elder care means increasing need for qualified staff, who are historically very difficult to recruit and retain. Staffing gaps are often filled by non-qualified and temporary workers, and it is difficult to ensure that these workers have the skills that are needed and can develop interesting and rewarding careers in the Kommun.

As a result of these conditions, the cost of providing elder care in its current form is increasing, and elder care in Storumans Kommun is becoming financially and socially unsustainable. There is an urgent need to examine alternative models of care, and develop a long-term strategy for care. This project takes the first step in developing that strategy through collecting evidence about what care will be needed between now and 2050, and what options are available for providing care in an environment like Storumans Kommun. Components of the model of care include housing, staffing, logistics and finance.

3. PURPOSE, GOALS AND TARGET GROUP

This proposal is a 'sub-project' of the overarching task of producing a plan/ strategy for sustainable elder care for Storumans Kommun for 2050. The plan/ strategy should be based on principles of quality care, independent living, community benefit and integration, and financial and staffing sustainability. The purpose of this sub-project is to inform the plan/ strategy by creating an 'options paper' describing alternative models of service delivery that suit an environment like Storumans Kommun. The options paper will include evidence about –

i. How demand for care services will change between now and 2050 (with a focus on demography and health conditions);
ii. Housing conditions for elder residents – where will they live, where should they live?;
iii. Recruiting, retaining and supporting an elder care workforce:
iv. Models of service delivery (in-home care, institutional care) that have been tried in places like Storuman; and
v. Funding options to support different models of service delivery.

The options paper will be developed over a twelve month period. That will include consultation and communication with key stakeholders in the Kommun and the wider health care system and the community itself.

4. PROJECT DESCRIPTION

The (sub)project has two work packages, each with three tasks

WP1. Projecting need and demand to 2050 – not just how many, but where?
- 1.1. How need and demand has changed in this century
- 1.2. Demographic projections
- 1.3. Demographic 'dynamics' – influences of demographic change

WP2. Global review of care services in rural municipalities – what works elsewhere?
- 2.1. Managing care in the home
- 2.2. Residential care and housing
- 2.3. Recruiting, retaining and supporting care workers

WP1.1 Changing need and demand in this century

The WP will commence by mapping the service points for elder care across the Kommun (private homes, institutions), and describing how these and the population of service users have changed over the past 20 years. Key questions for this task are –

- How do people's living arrangements and access to care change as they get older?
- What happens when a partner dies, or moves to a residential care facility, or family leave the area etc?
- How do the experiences of men and women differ?
- How do the experiences of Swedish-born and non-Swedish-born differ?

The task will also identify the main sustainability challenges relating to funding services, the logistics of service delivery (especially for in-home care), providing high quality care, and providing care that benefits the whole community.

WP1.2 Demographic projections

SCB produces demographic projections for the Kommun as a whole, but currently we have no information about how the population might be geographically distributed across the Kommun. This task will produce such 'small area projections' using a demographic modelling technique called a 'spatial cohort component model'. Such a model 'breaks down' the official projections into smaller spatial units (such as postcodes or towns/ villages) by examining how these units have changed over the past 20 or 30 years.

SCB updates its population projections every year, aware that changing environmental, social, and economic conditions will impact the assumptions used in developing the projections. Therefore it is important that this project includes some understanding of how much actual population development might differ from the official projections provided at any given point in time. The project will use a simulation tool (called *ARRVO – agent-based rural and remote village observer*) to explore what the elder population might be (number, age distribution, gender, place of residence) under a number of scenarios. Scenarios might include changes in housing availability and preference, changes in access to informal care (provided by friends and relatives living in the Kommun), changes in working life and changes in health care models beyond elder care (for example, post-pandemic service models, use of digital technologies). ARRVO processes these scenarios and estimates whether they will have large or small impacts on the elder population.

WP1.3 Demographic dynamics

Hand in hand with the ARRVO simulations will be an examination of the factors that might lead to different scenarios emerging – particularly scenarios which are likely to have a large impact on the elder population. Factors can be local –

- Changing patterns of migration to, from, and within the Kommun;
- Seasonal and 'multi-home' residents;
- Availability of housing;
- Health and care policy (local, county, national)

Or related to national and international 'mega-trends' such as –

- Technology advancements
- Climate change
- Pandemics and global health trends
- Europeanisation-globalisation
- Urbanisation
- Changing mobilities.

The likely impact of these local and global trends will be explored through statistical modelling (describing past responses to these sorts of trends in Storuman and similar places) and through a review of the academic and grey literature.

WP2 Global review of design solutions

The WP will use academic and grey literature to identify 'state of the art' approaches to elder care services in places like Storumans Kommun. Similar places can be found across the European and American Arctic, and in Australia and other high income countries with sparsely populated rural/ remote areas. The WP will summarise what models of care have been tried, what has worked and what has not worked. The WP will provide an assessment of whether the keys to success are likely to exist in Storumans Kommun. WP tasks respond to specific topics -

WP2.1 Managing care in the home

- Types and roles of staff
- Use of digital technologies to support home care
- Nature of services available through home care
- Logistics and route planning/ work scheduling
- Managing transitions from home care to institutional care.

WP2.2 Residential care

- What mix of housing works best to deliver rural care services –
    - Independent living
    - Housing types
    - Public and private housing
    - Group housing/ residential facilities
    - Location of housing/ integration of elder housing with the broader community
- Types and roles of residential care staff
- Models for financing residential care

WP2.3 Recruitment, retention and support of care workers

- Developing an appropriate mix of skills and roles among the workforce
- Options for 'growing your own' workforce by recruiting and training local people
- Recruiting staff from outside the Kommun
- Seasonal and temporary staff
- Education and training programs
- Supporting staff to remain in the Kommun and to develop their skills.

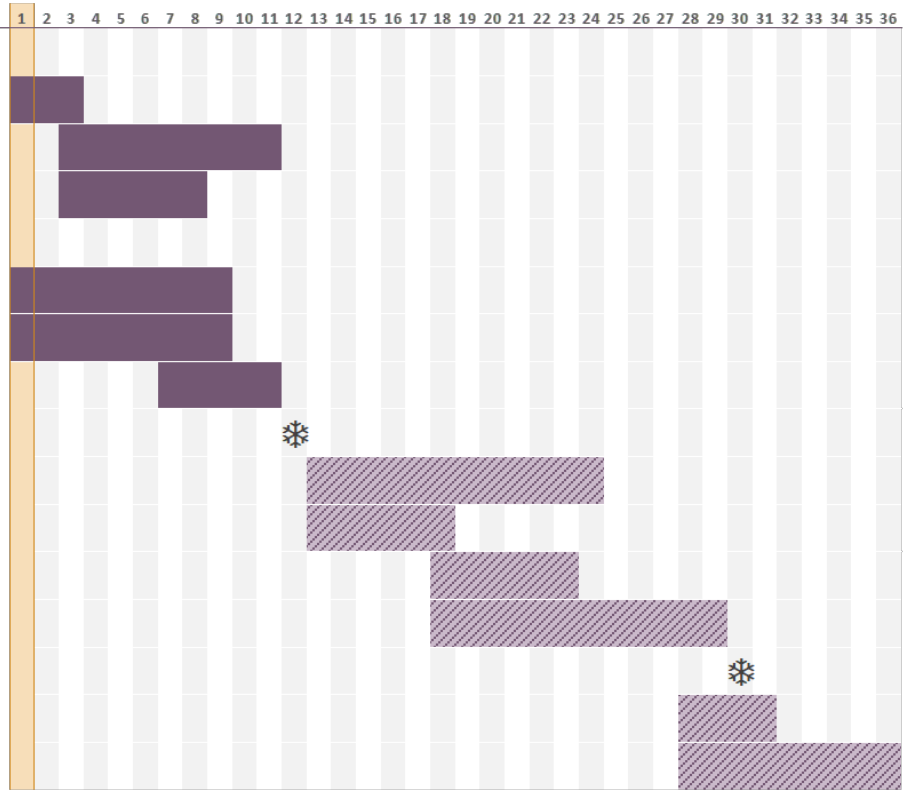
5. TIME AND ACTIVITY PLAN

Storuman Cares 2050 Project Plan

Select a period to highlight at right. A legend describing the charting follows.

Period Highlight: 1 | Year 1 | Future work

ACTIVITY	PLAN START	PLAN DURATION	ACTUAL START	ACTUAL DURATION	PERCENT COMPLETE
1. PROJECTING NEED AND DEMAND		12	0	12	0%
1.1 Need and demand this century	1	3	1	3	100%
1.2 Demographic projections	3	9	3	9	100%
1.3 Demographic dynamics	3	6	3	6	100%
2. Global review		12	0	12	100%
2.1 Care in the home	1	9	1	9	100%
2.2 Residential care and housing	1	9	1	9	100%
2.3 Workforce	7	5	7	5	100%
MILESTONE 1 : OPTIONS PAPER		1	0	1	100%
3. Housing	13	12	13	12	0%
4. Service provision (logistics)	13	6	13	6	0%
5. Community impacts	18	6	18	6	0%
6. Economy	18	12	18	12	0%
MILETONE 2: THE PLAN					
8. Implementation strategy	28	4	28	4	0%
9. Community engagement	28	9	28	9	0%



This proposal includes the top half of the Gantt chart (to Milestone 1), and will be conducted over a 12 month period. Work package tasks are largely concurrent rather than sequential, and information from the research reviews (WP1.3; and WP2) will continuously inform the statistical modelling (WP1.2). While the main milestone is the 'options paper', a series of briefing papers and presentations will be produced throughout the year. These are listed below.

6. EXPECTED RESULTS

The options paper will include a summary of the demographic and service modelling (WP1) as background to the analysis of service and staffing options (WP2), but there will be separate briefing papers (no more than 2 pages/ 8 slides in length) for each of the WP tasks. These will be presented to Kommun officials via quarterly progress updates and to community stakeholders through public presentations at the six month and twelve month mark. Academic versions of these briefing papers (and the reviews in WP2) will be submitted for peer review to ensure that they meet the highest possible research standards. This process will also help identify 'missing pieces' in the reviews through connecting the project with international experts in the field. Briefing papers are expected to include –

i. Changing service needs and access 2000-2020
ii. Expected demand for services 2020-2050
iii. Influences on the size and geographic distribution of Storumans elder population 2020-2050
iv. Models of sustainable home care services in rural areas – lessons for Storumans Kommun
v. New approaches to residential care in rural areas – lessons for Storumans Kommun
vi. A sustainable elder care workforce for rural areas – lessons for Storumans Kommun.

7. GENDER EQUALITY

As described above, there are substantial gender differences in demand for elder care services, and preferences for housing. The elder care workforce is also typically highly gendered, attracting many more females than males. It will be very important in this project to ensure that perspectives and experiences of both males and females (service users and workers) are considered. Demographic models will separately identify males and females, and research reviews will search specifically for insights into managing gender differences. The project also has the potential to contribute to gender equality by identifying strategies which might increase the participation of men in the elder care workforce.

8. ENVIRONMENT

The project will be largely desk-based, with limited direct effects on the environment. Environmental issues (climate change, sustainability) are prominent in scenario modelling (WP1.2, 1.3).

9. INTEGRATION

A guiding principle of the project is that the elder population should live in harmony with the total population, being integrated as far as possible spatially and making use of shared community facilities (recreation and leisure, health and education). The project also notes that the cultural composition of the elder population is going to change substantially over the next generation, so

there will be challenges to ensuring elder care is accessible to all. As with gender, the issue of 'managing diversity' will be central to the reviews.

10. AFTER THE PROJECT

This project has been conceived as a first step towards a comprehensive strategy for elder care that lays out a clear plan for housing, service design, staffing and financing. Placing ownership and leadership of the project within the Kommun (rather than contracting a consultancy) will help ensure that the results can be used practically. Specific sub-tasks, such as identifying best practice in logistics (route planning) for home care visits, have the potential to impact service delivery even as the project is being conducted.

11. SKILLS NEEDED FOR THE PROJECT

The success of the project depends on high level skills in demographic modelling and research reviewing, high level knowledge of the context of elder care in Storumans Kommun, and connections with international experts in rural elder care service design. The following list summarises the skills needed to successfully complete this project within the Kommun –

- Demographic modeling (with a focus on spatial modeling)
- Ability to access and interpret relevant demographic and other data
- High level understanding of the environment for care services in Storuman
- High level understanding of the 'dynamics' of rural communities (reasons why people choose to stay or leave, to change housing etc)
- Familiarity with academic and policy literature around 'rural health'
    - Health and care service design
    - Access to care
    - Recruitment and retention of health and care workers
    - Health economics
    - Including an ability to contribute to that literature so that briefing papers can be reviewed by experts in the field
- Contacts with researchers, policy makers and planners working in similar rural contexts around the world
- Ability to communicate project progress and outcomes to a variety of stakeholders within the Kommun and the broader community

12. PROJECT MANAGEMENT

The project will be owned by Patrik Nillson (Administrative Chef/ Tillfördnad Socialchef) to ensure that it is well connected to Kommun activities and is informed by expertise in finance and staffing issues. The project will be advised by Alexander Jonsson (Utredare) to ensure it has access to, and understanding of, the necessary statistical data for modelling in WP1. Other internal advisors will be appointed as the proposal and the project progress. A small external reference group will be constituted specifically to review the briefing papers. That group will include academic and practitioner experts in elder care service design and management, and population ageing issues.

Professor Dean Carson is nominated as Project Leader to be employed 0.4FTE by the Kommun. Professor Carson has 30 years' experience in rural health research and in demographic modelling, with a unique set of skills matched to the needs of this project. Professor Carson has spent the past seven years actively engaged in health research, demographic modelling, and community activities in Storumans Kommun. A resumé is attached.

The project team (owner, leader, advisors) will meet once per month, and will provide quarterly reports (with briefing papers) to the Kommun. The team will make a public presentation of the project and its progress at the six month and twelve month mark.

13. RESOURCES REQUESTED

The project will cost c.350 000SEK over twelve months. All costs relate to the employment of the project leader –

Item	Cost (12 months)
Salary (45 000/ month x 0.4FTE)	216 000
Taxes and employer fees (40%)	86 400
Overheads (15% of salary and taxes)	45 360
TOTAL	347 760