# **Atlas of Caregiving**

# Care Network Diagrams Diagram Style Rationale

Version 1.2

May 5, 2016

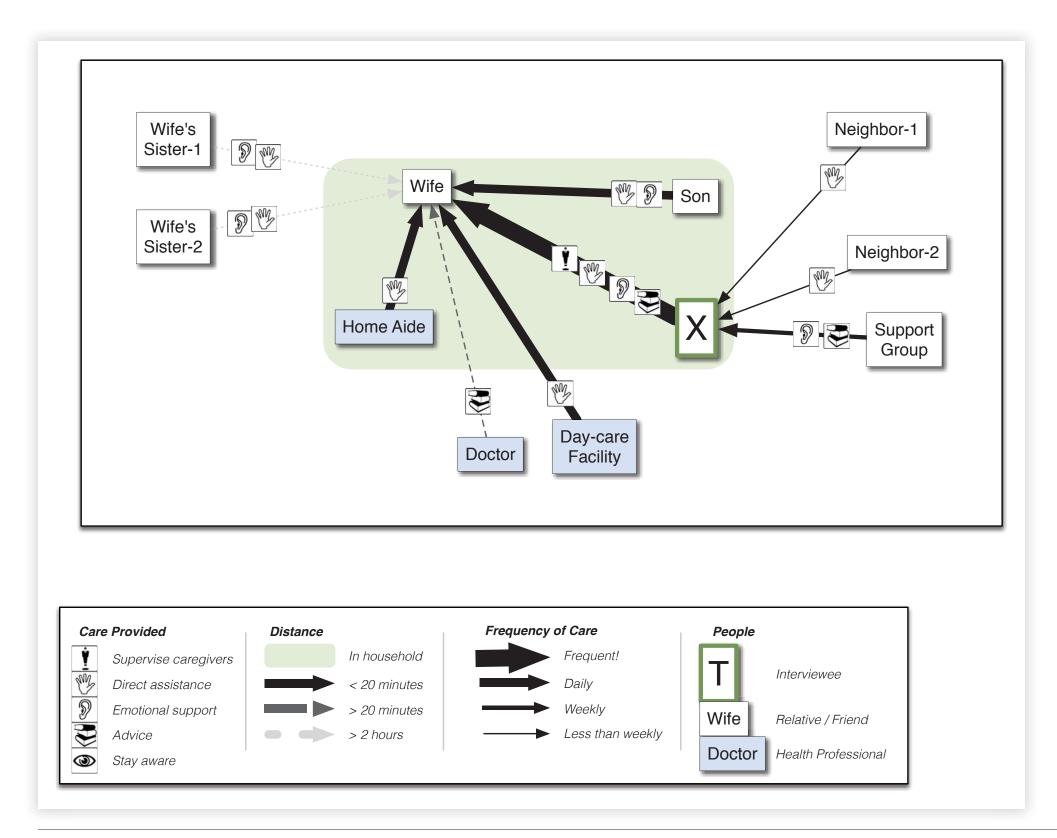
Prepared for Raiiv Mehta

Prepared by Dubberly Design Office 501 Harrison Street, #7 Jan Francisco, CA 94110 15 648 9799

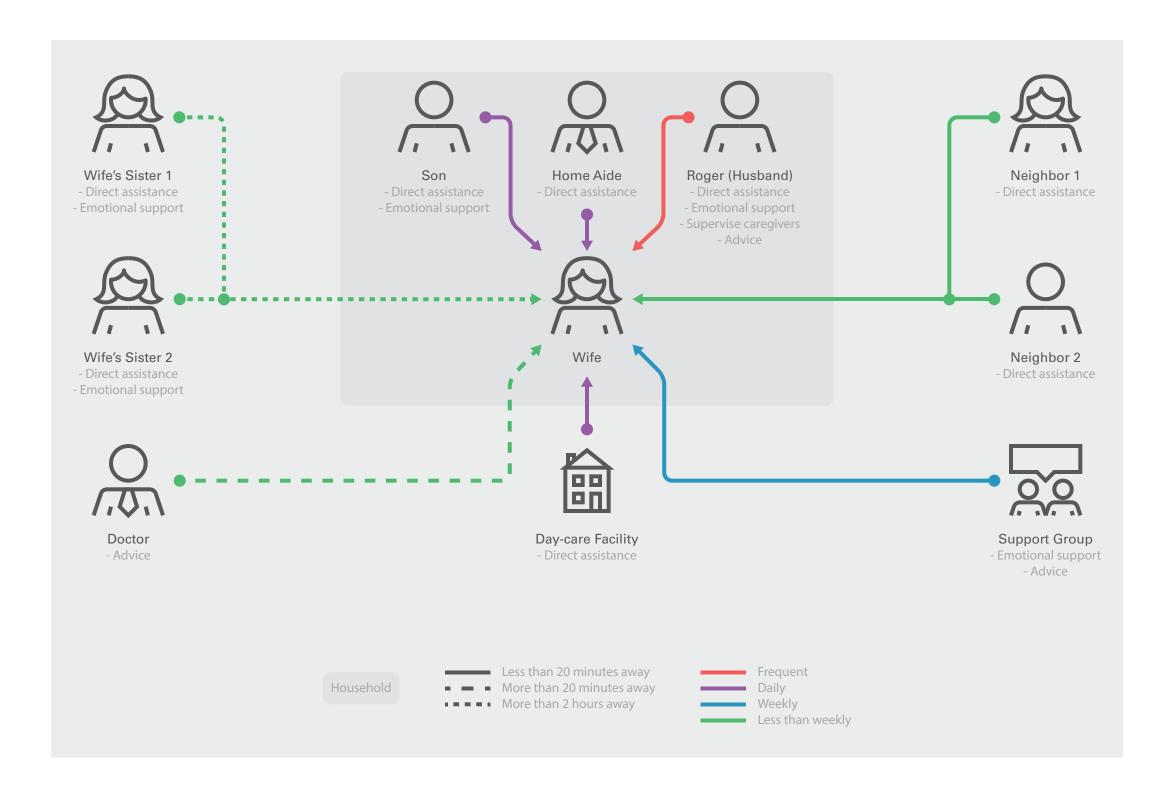
# An early attempt to chart care networks from 2009.



# The first set of care network diagrams had a complex key that was difficult to understand.



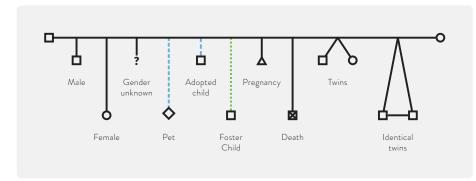
# Restructuring the same information with the addition of iconography reduced the cognitive load.



### We also looked at genograms, a method for charting complex networks of people and their relations.

# Genogram

#### Genogram symbols



#### Genograms

A genogram (also known as a McGoldrick-Gerson study, a Lapidus Schematic or a Family Diagram) is a pictorial display of a person's family relationships and medical history. It goes beyond a traditional family tree by allowing the user to visualize hereditary patterns and psychological factors that punctuate relationships. It can be used to identify repetitive patterns of behavior and to recognize hereditary tendencies.

Genograms were first developed and popularized in clinical settings by Monica McGoldrick and Randy Gerson through the publication of a book titled Genograms: Assessment and Intervention in 1985. Genograms are now used by various groups of people in a variety of fields such as medicine, psychiatry, psychology, social work, genetic research, education, and many more. Some practitioners in personal and family therapy use genograms for personal records and/ or to explain family dynamics to the client. Few if any genealogists use them.

http://en.wikipedia.org/wiki/Genogram

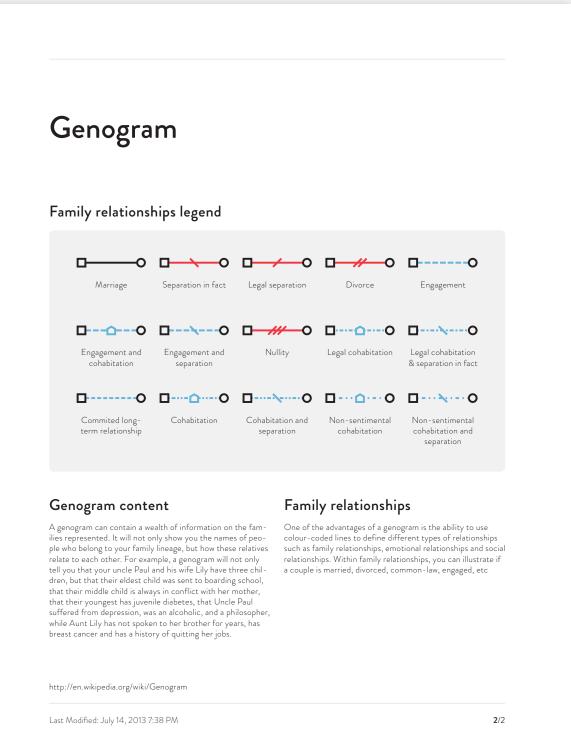
Last Modified: July 14, 2013 7:38 PM

#### Genogram symbols

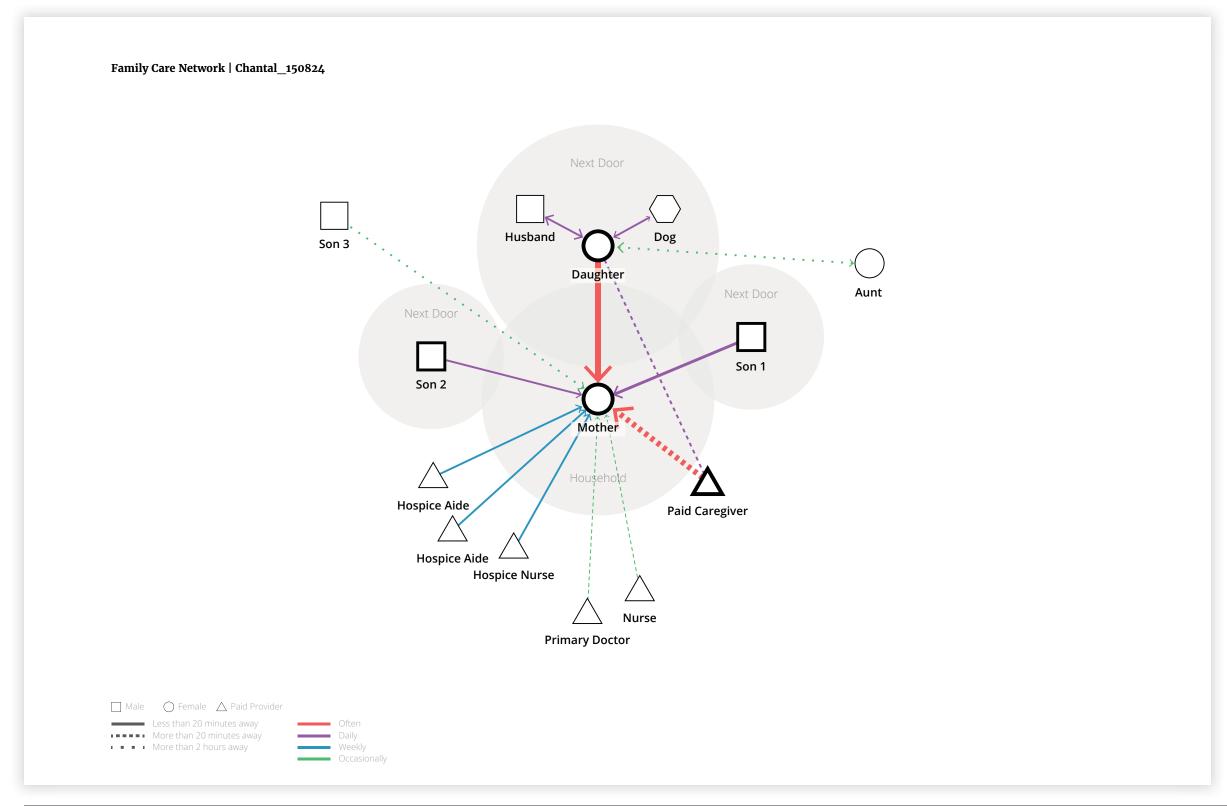
A genogram is created with simple symbols representing the gender, with various lines to illustrate family relationships. Some genogram users also put circles around members who live in the same living spaces. Genograms can be prepared by using a complex word processor, or a computer drawing program. There are also computer programs that are custom designed for genograms.

Genogram symbols will usually have the date of birth (and date of death if applicable) above, and the name of the individual underneath. The inside of the symbol will hold the person's current age or various codes for genetic diseases or user-defined properties: abortions, still-births, SIDS, cohabitations, etc.



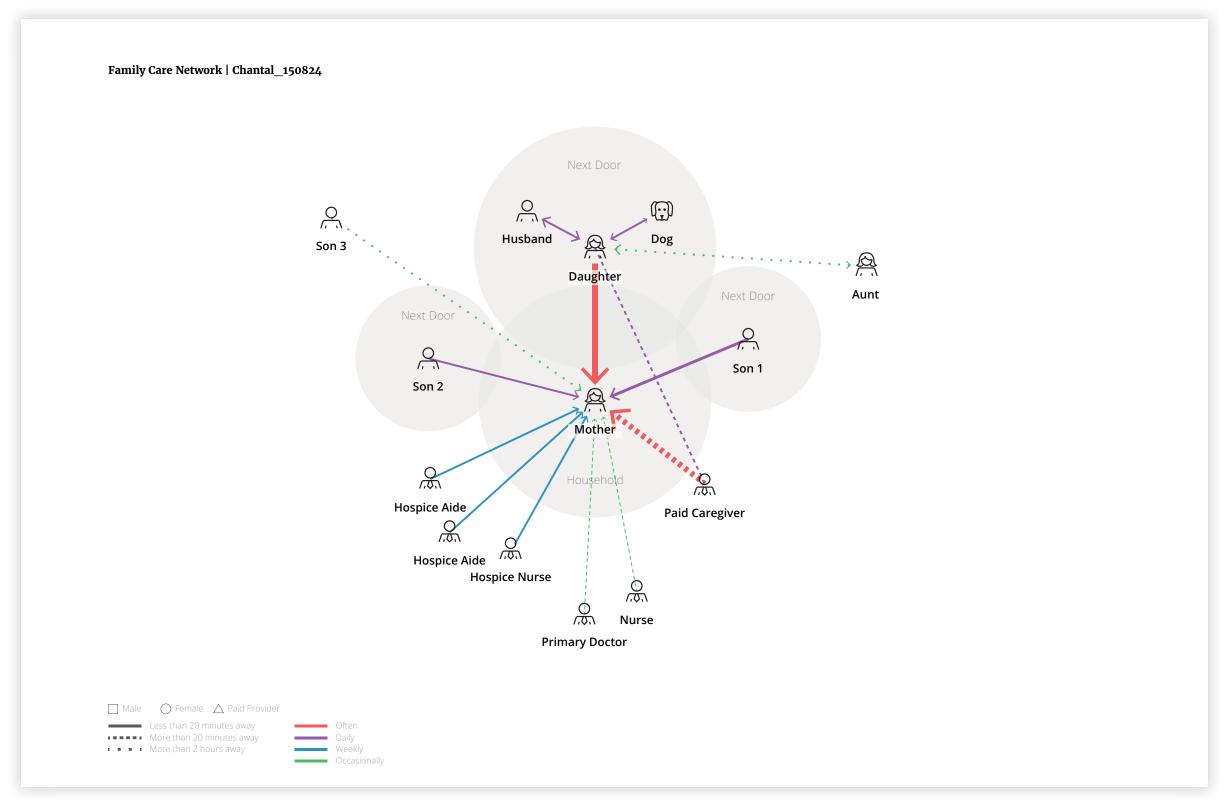


# Attempt at using genogram symbols and a programatic approach. More flexible and a clearer representation of the composition of actors.

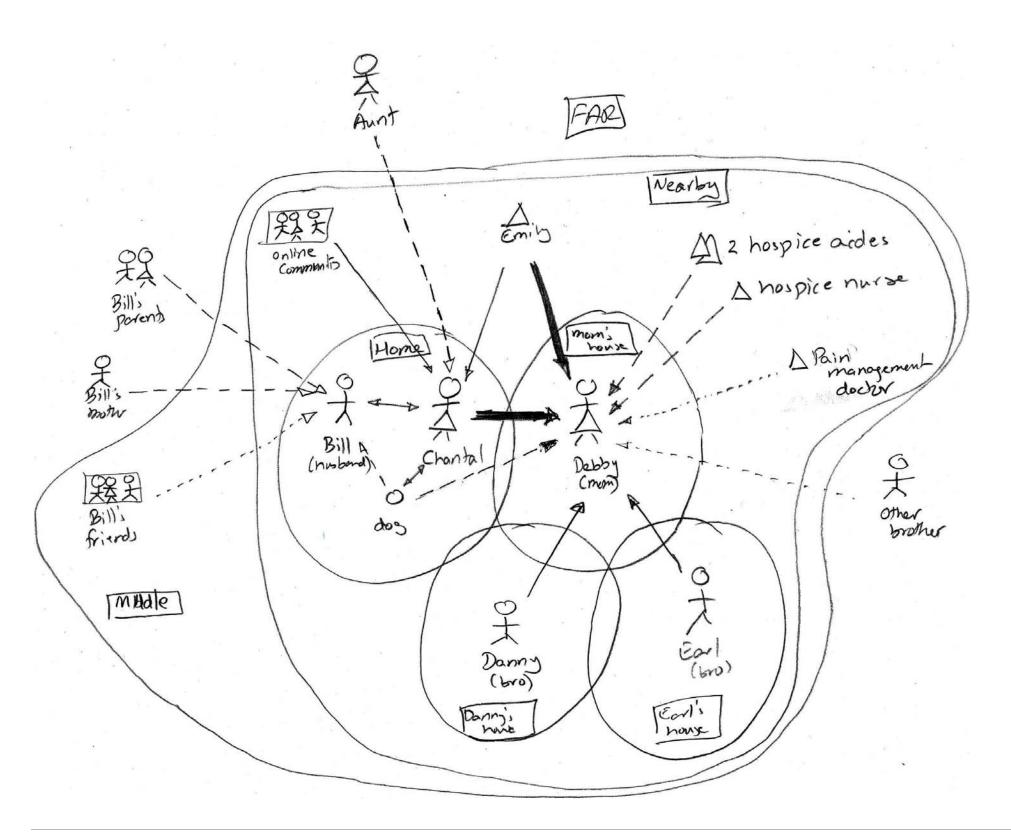


Iconography was re-introduced to humanize the diagrams and make them easier to read.

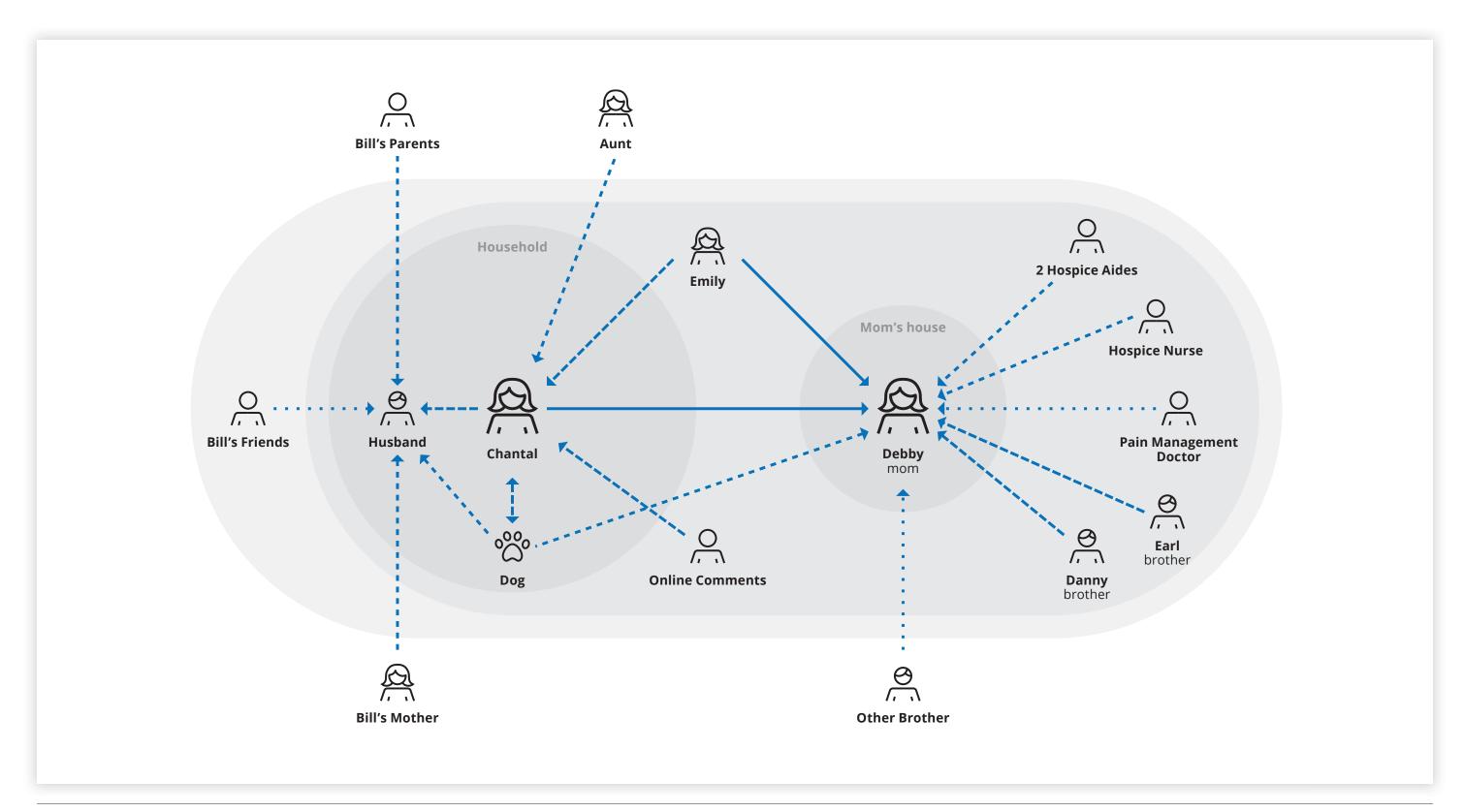
The two methods for showing distance; relative distance and line style can be difficult to understand.



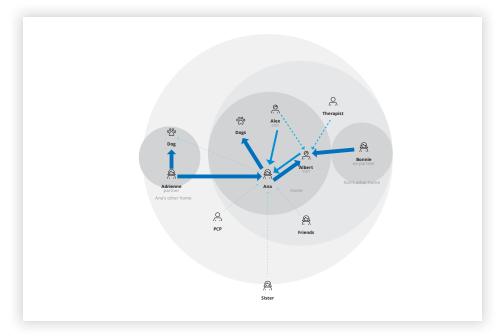
The grouping of actors within circles have now become conflated, indicating both households and distance.

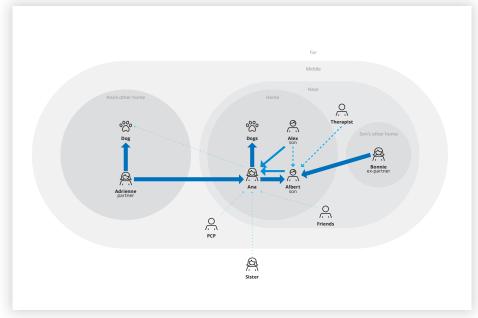


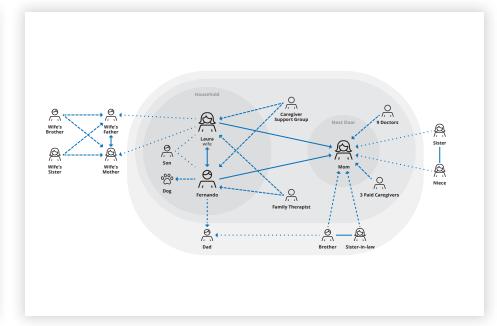
It has become hard to see who the main actors are and get a sense of their situation and support network.



# As the diagrams grew in complexity, the circle metaphor for distance started to break.

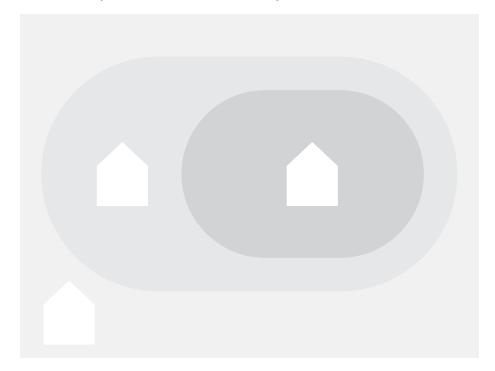






# Shifting from indicating distance radially to linearly makes the diagram easier to read and makes for a less restrictive layout.

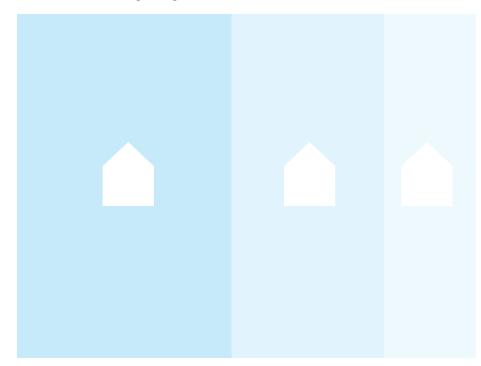
11.1 Radial—Space inefficient and difficult to parse



11.2 Radial—Cropped to become linear—Space inefficient



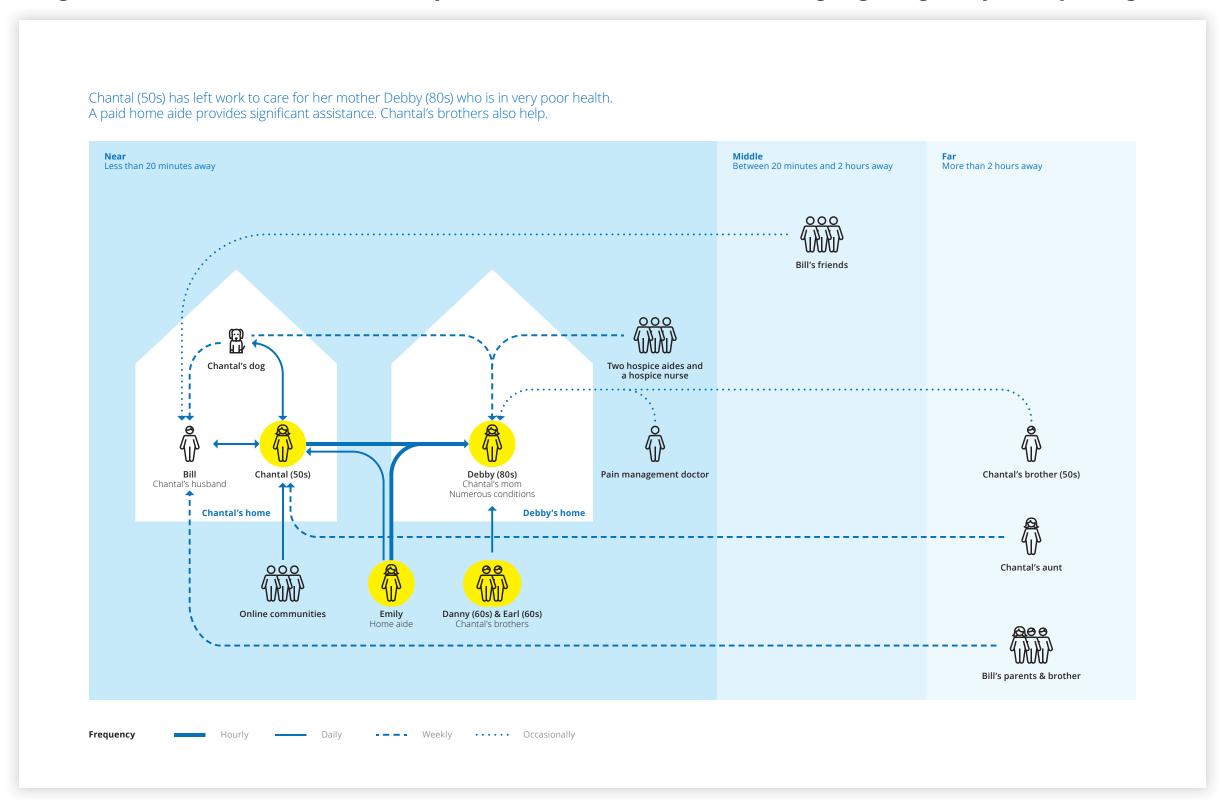
11.3 Linear with straight edges (fluid width boxes)



# A systematic approach to the guiding principles enables the diagrams to function as a unified set.

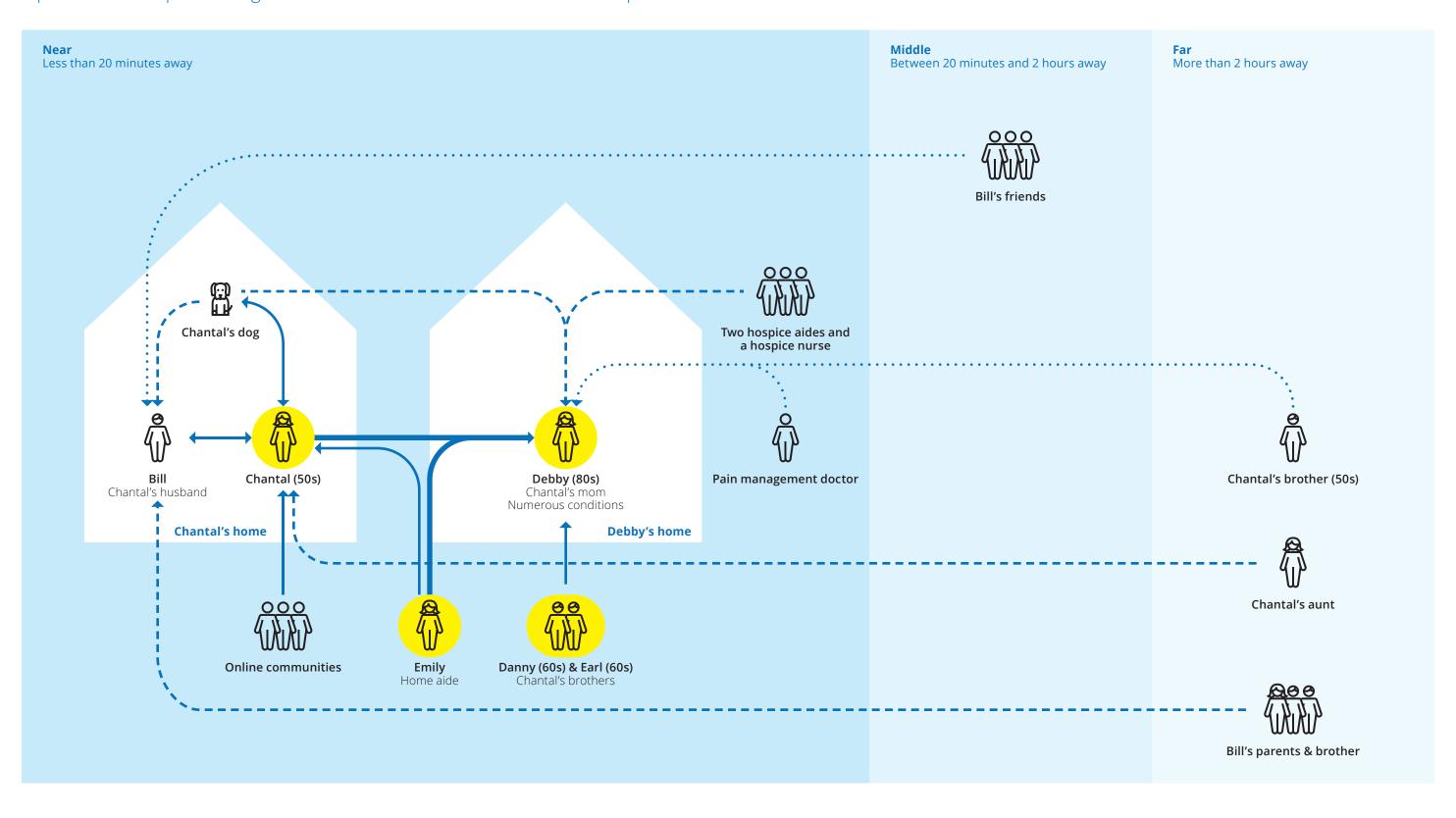
Before	After	Description	Before	After	Description
	<b>→</b>	Full body representation of actors.			Group similar actors when possible.
	<b>→</b>	Houses to represent households.		<b>→</b>	Indicate distance linearly.

Using a linear device to indicate distance, and reserving the use of shapes to indicate households increases readability. Diagrams now include a short description to aid readers, while also highlighting the primary caregiver and care reciever.



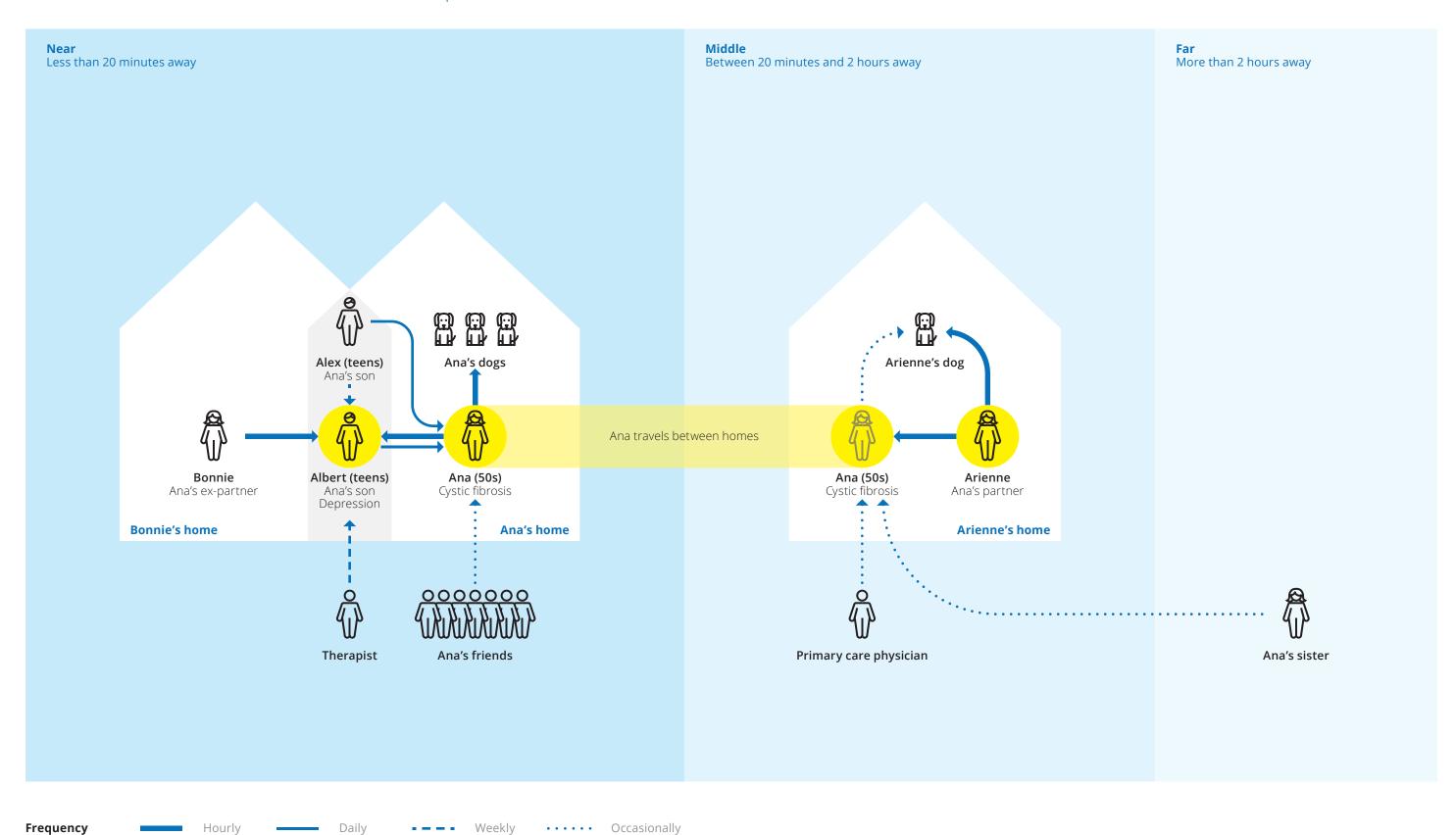
Chantal (50s) has left work to care for her mother Debby (80s) who is in very poor health. A paid home aide provides significant assistance. Chantal's brothers also help.

Frequency

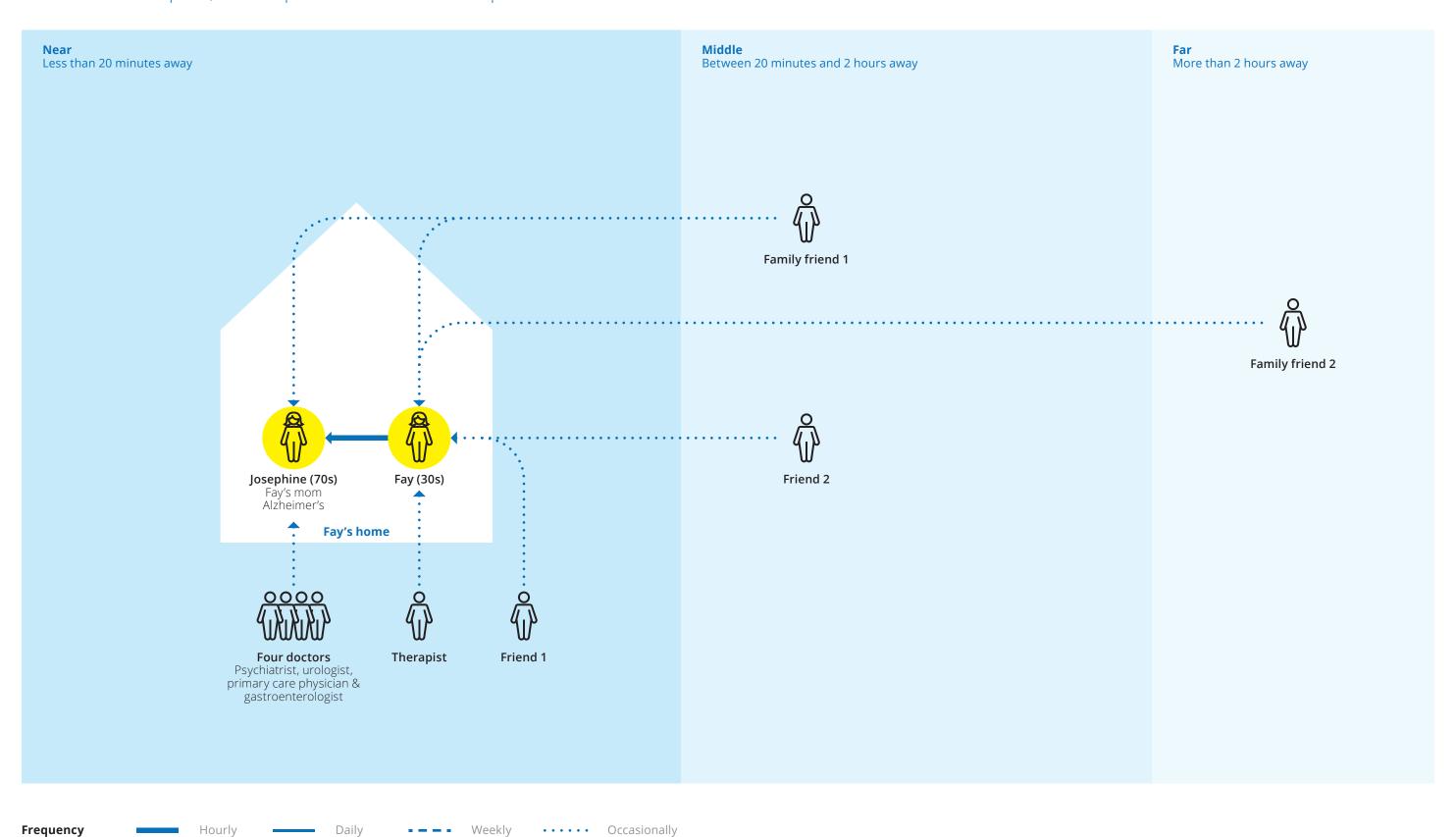


• • • • • Occasionally

Ana, a woman in her 50s, has cystic fibrosis and mainly takes care of herself. She also cares of her son Albert who suffers from depression.



Only-child Fay (30s) cares for her mother Josephine (70s) who has been diagnosed with Alzheimer's disease. With no one to help her, she has put her career on hold to provide 24x7 care.



# **Diagram Principles: Actors**

#### Icon type



Use full body representations of actors.

#### Selection

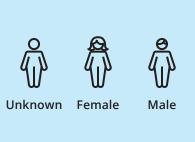


Only include actors that relate to the story being told.

Everyone sees a Dentist on a semi-regular basis; do not include actors unless they relate to the chronic condition or care.

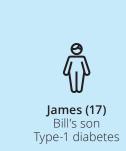


Gender



Only assign an actor a gender when it is known.

#### Description



Use first names and age when known to describe actors.

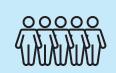
List chronic conditions.

Define relation to primary actor.

#### Grouping



Hospise nurse & hospise aide



5 doctors Two pediatricians, optometrist, neurologist and a podiatrist

Group secondary actors when possible, but only when they share the same connections and type (e.g. do not group a doctor and an aunt).

Each group member must be represented in the icon.

If the group grows large it is permissable to have the first line read "5 doctors" and list them all out on the following lines with the subtitle style.

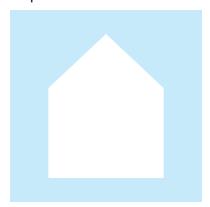
#### Highlight



Highlight the primary care giver(s) and recipient(s)

# **Diagram Principles: Households**

#### Shape



Only include households that relate to the primary caregiver or recipient, or otherwise play an intrical part in the story.

The proportion of the house can change to accommodate different household structures and members

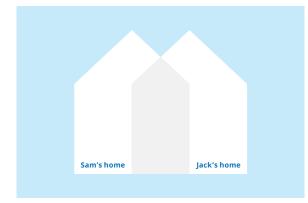
#### Naming



Households must be named. Name should be from the primary actor's point of view.

Position of the name can move to accomodate connections. Most desireable placements are bottom left, bottom middle, and bottom right.

#### Overlap

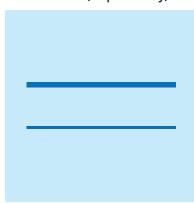


Households can overlap.

This can be used to indicate settings such as divorced parents who have shared custody of their joint children. The children would be in the overlap, and their parents on their respective sides. The goal is to not duplicate actors.

## **Diagram Principles: Connections**

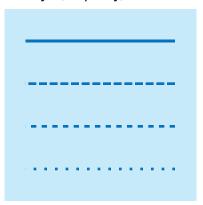
#### Line thickness (responsibility)



The thickness of the line represents the responsibility of the caregiver. The ticker line represents a primary caregiver, while the thinner represents a secondary caregiver.

There can be multiple primary caregivers, but the majority of actors will fall into the latter category.

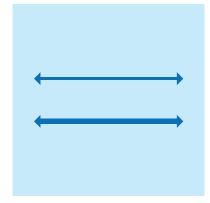
#### Line style (frequency)



The style of the line represents the frequency of the care provided.

From top to bottom there lines represent hourly, daily, weekly and occasional care.

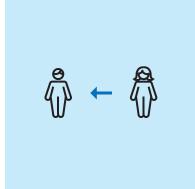
#### Arrow style



The arrows indicate the direction of care. It is also possible for a line to have two arrowheads for reciprocal caregiving.

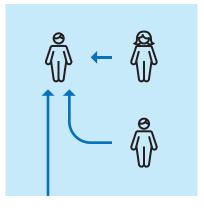
All allowheads are the same size, no matter the responsibility of the caregiver.

#### Straight line



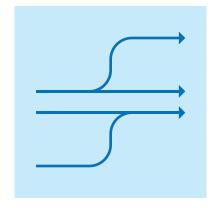
Use straight lines following the cardinal directions (horizontal or vertical) whenever possible.

#### **Curved lines**



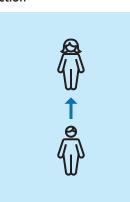
If a straight line is not possible use a curved line.

#### Forks and merges



It is permissble for connections of the same type to both fork and merge if it aides readability.

#### Direction



On the vertical axis try to position care providers at the bottom and recipients on the top when possible. Care flows up.

#### Note

Avoid crossing lines when possible. Unless is obstructs the readability of the diagram.

Only include connections pretaining to that of the condition / caretaking. It's implied that a married couple cares for each other.

# **Diagram Principles: Distance**

#### Distance is represented by time (e.g. hours) rather than miles

Near Less than 20 minutes away	Middle Between 20 minutes and 2 hours away	<b>Far</b> More than 2 hours away

Distance is described linearly, with three increments.

If an actor is near the edge of the boudry, it doesn't necessarily mean they're further away.

It's ok to resize the fields as needed to optimize for readability.

The diagram should have less detail towards the right of the diagram. Typically there are fewer actors and households farther away.