

Patients motivate, self-educate and coordinate to act on health goals.

We paired patients and providers in a participatory design workshop. They turned a health goal into a board game. Patients represented three types of work that characterize the burden of health management: motivational, educational, and cooperative.

Patients motivate themselves and/or their children to change health behaviors.

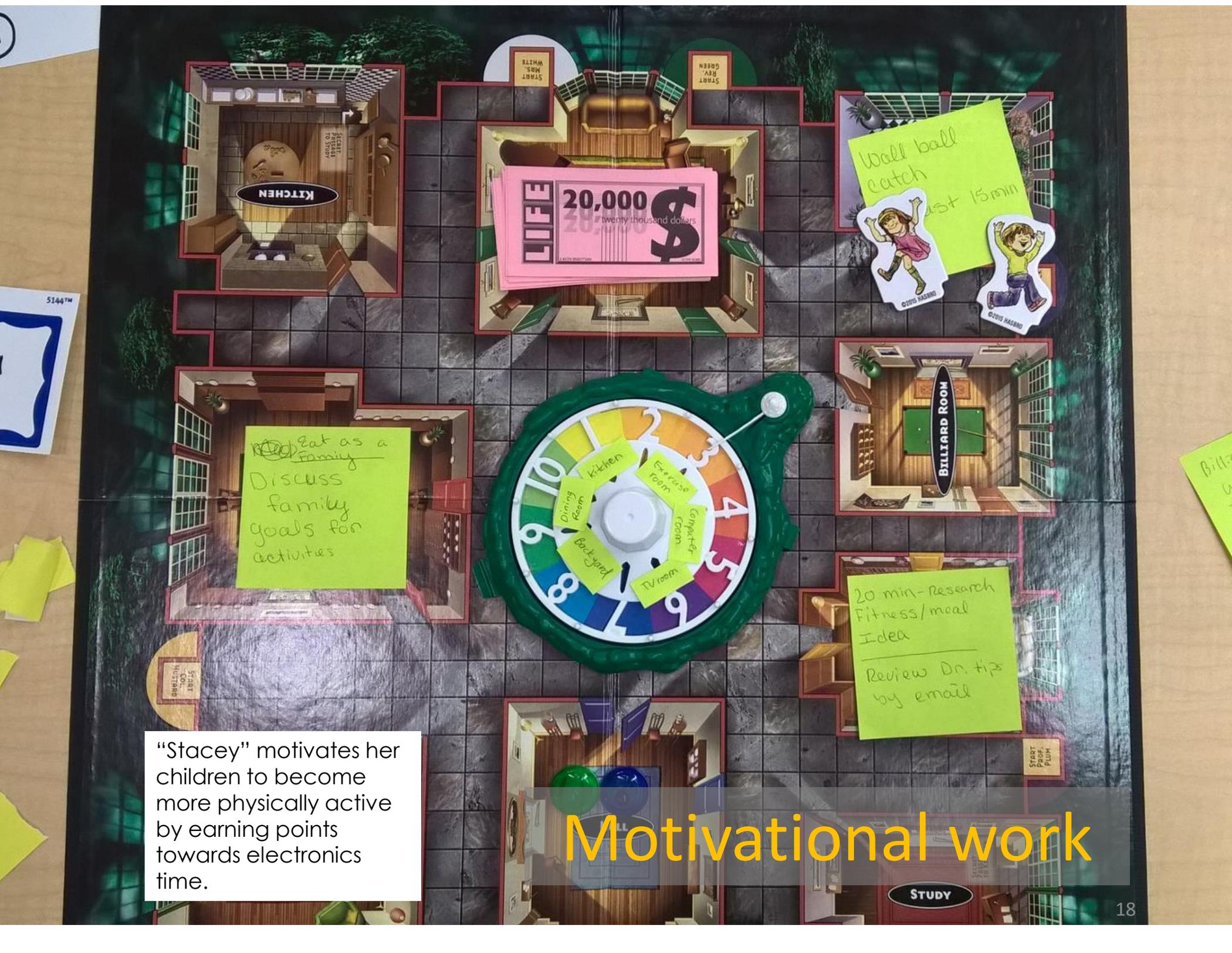
They self-educate to understand cause-and-effect relationships between actions and outcomes.

They coordinate information, resources, and people.



"Stacey" motivates her children to become more physically active by earning points towards electronics time.

Motivational work



"Kiley" has to move together with all of her children as they learn how different actions affect their health.

Self-education work

The board game grid contains the following handwritten notes on sticky paper:

- 99:** Watch TV all day & forgot to take meds
- 97:** Achieve great control of asthma
- 96:** Eat junk food
- 94:** forgot to take medicine for a few days
- 92:** Go on a field trip
- 81:** Asthma meds for visits + still a symbol of a habit!
- 83:** Achieve great control of asthma
- 86:** * Stopped meds because doing so well
- 88:** wheezing with running
- 89:** Turn in asthma form to school
- 82:** didn't do homework
- 79:** * Didn't refill meds
- 77:** Get controller and rescue med mixed up
- 76:** Gain weight
- 74:** Got a great night of sleep (well rested)
- 72:** Take meds consistently
- 61:** No football (didn't make team b/c too much wheezing)
- 63:** Catch a cold
- 65:** Asthma exacerbation
- 68:** Trip to doctor for acute visit
- 70:** Take meds consistently
- 59:** Keep up with the other kids
- 58:** Not coughing in class
- 57:** Catch a cold
- 55:** no asthma action plan
- 54:** Asthma exacerbation
- 52:** Didn't rinse mouth or brush teeth after meds
- 50:** Take meds consistently
- 41:** Comprehensive updated care plan
- 43:** Avoid allergens
- 45:** no asthma action plan
- 48:** Didn't rinse mouth or brush teeth after meds
- 50:** Take meds consistently
- 40:** Go to doctors for inhaled steroids
- 39:** Comprehensive updated care plan
- 37:** Avoid allergens
- 32:** Even body gets to a healthier BMI
- 22:** Admitted to hospital
- 23:** Ride in an ambulance
- 27:** Get asthma action plan
- 29:** Get asthma action plan
- 30:** Get cavities
- 20:** The tantrum about taking meds
- 15:** Exacerbation
- 7:** No TV
- 8:** Get asthma action plan
- 10:** Get asthma action plan

✓ barrier - red
✓ resource - green
✓ yellow - reminders
✓ blue - med provider
✓ purple - task
✓ orange - people/place

BARRIER
Overdue for
Dr. follow up!
No back 2 spots
1 spot

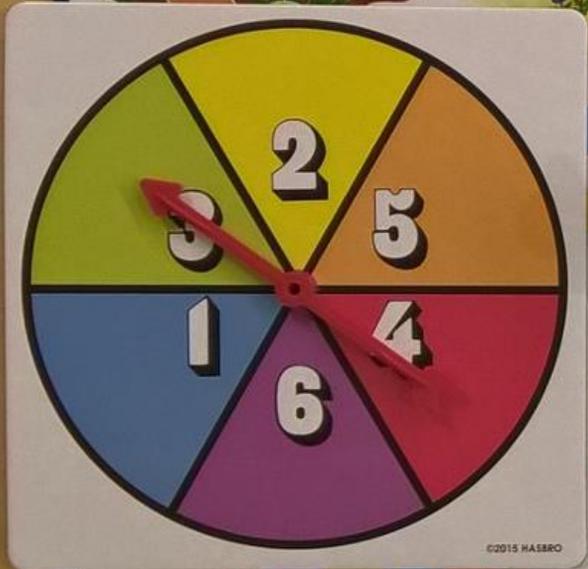
Tasks
Schedule
follow up
Go to next
red spot

Resources
Parent and
Child education
material
received.
Jump ahead 3
spots

People + places
Hospital -
Dr office

Reminders
Med authorization
Sent to school
early.
Awesome!
No ahead 4 spots

Med provider
gives education
material.
Go to next
green



“Lucy” coordinates health tasks with school teachers, health providers, and her child’s father from whom she is separated.

Coordination work

Reflection on patient work

What are some examples of motivational, educational, and coordination work?

A large, empty rectangular box with a thin black border, intended for the user to provide their reflection on patient work.

4

Patients want social, adaptive, introspective, and symbolic health reminders.

We engaged patients in participatory design of future reminder systems. Participants foregrounded 4 types of persuasive features of desirable reminders: introspection, social support, adaptation, symbols.

Introspection helps patients to plan and prioritize health tasks.

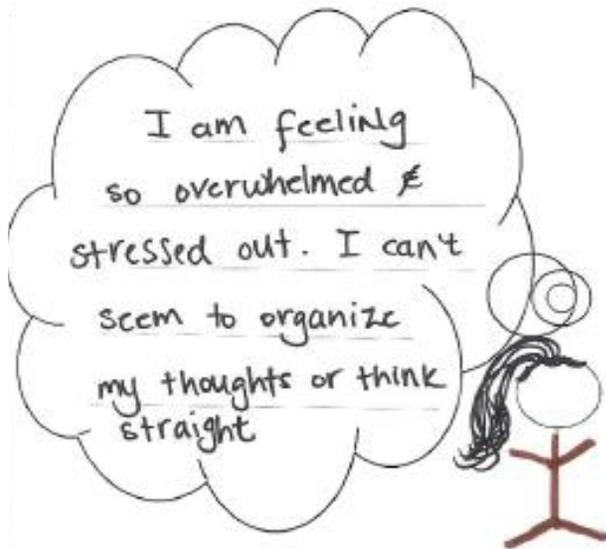
Social support helps patients to build confidence.

Adaptation helps patients to cope with changes in care.

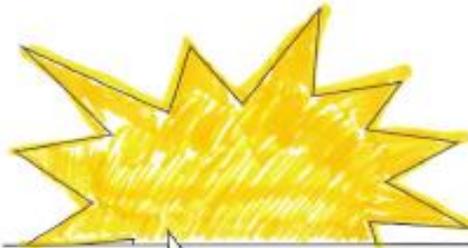
Symbols motivate health change through personal rationales.

Introspective reminder

Before the genie appeared....



I am feeling
so overwhelmed &
stressed out. I can't
seem to organize
my thoughts or think
straight



After the genie appeared....

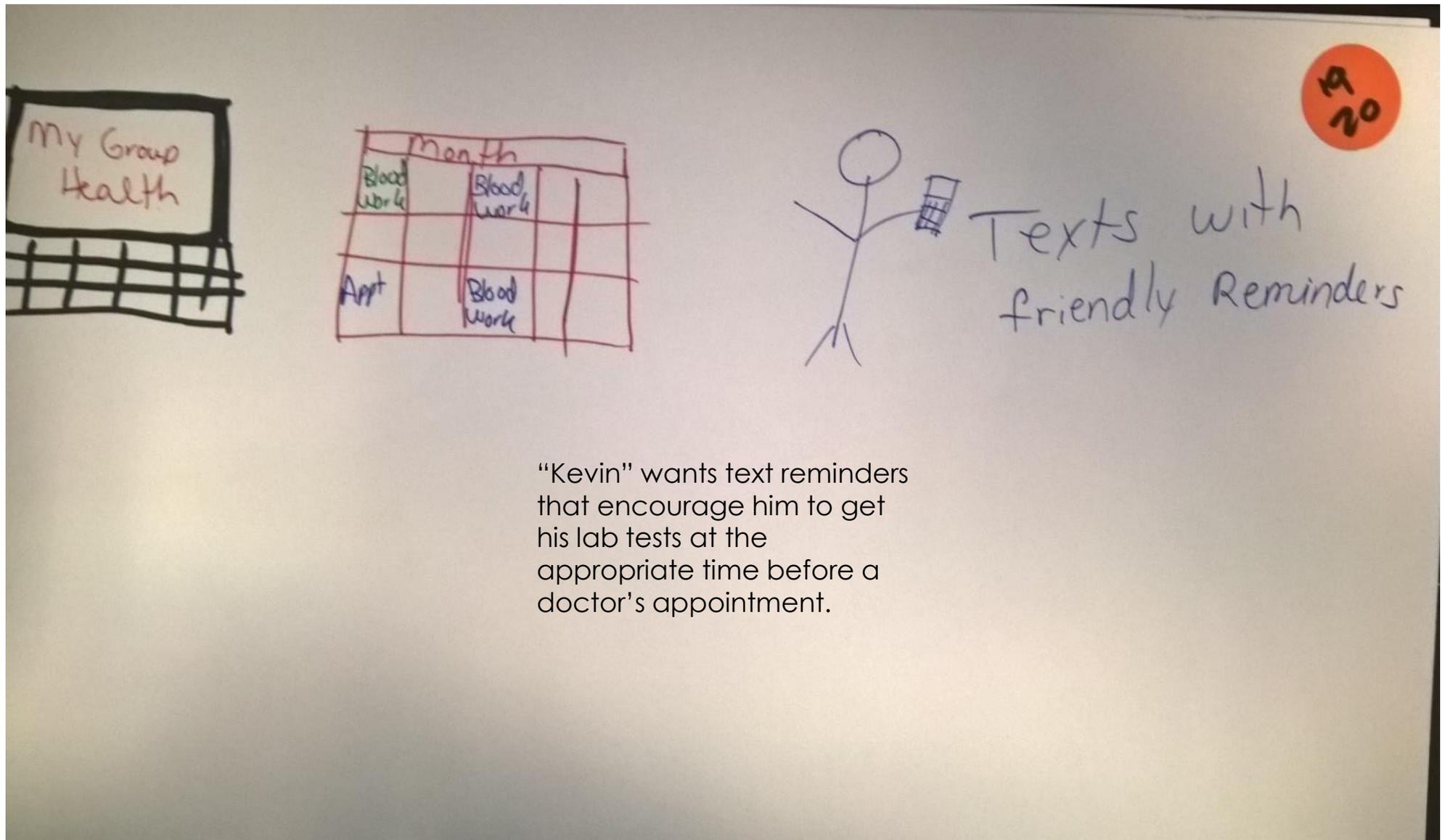


- Not so stressed?
- TIME
- management
became simpler.



"Don't fret, I
am here to help.
Take 5 minutes & step
back from the task &
assess the ^{most} important
Priority that needs
your attention.

"Lisa" wants a reminder to step back and reflect so that she can prioritize her health tasks.



Socially supportive reminders

“Stephanie” created a super app that gives her health tips personalized to each family member and appropriate to the season and the care plan.



Adaptive reminder system



Images of flowers, nature, and the sky were reminders to stay well.

Symbolic reminders

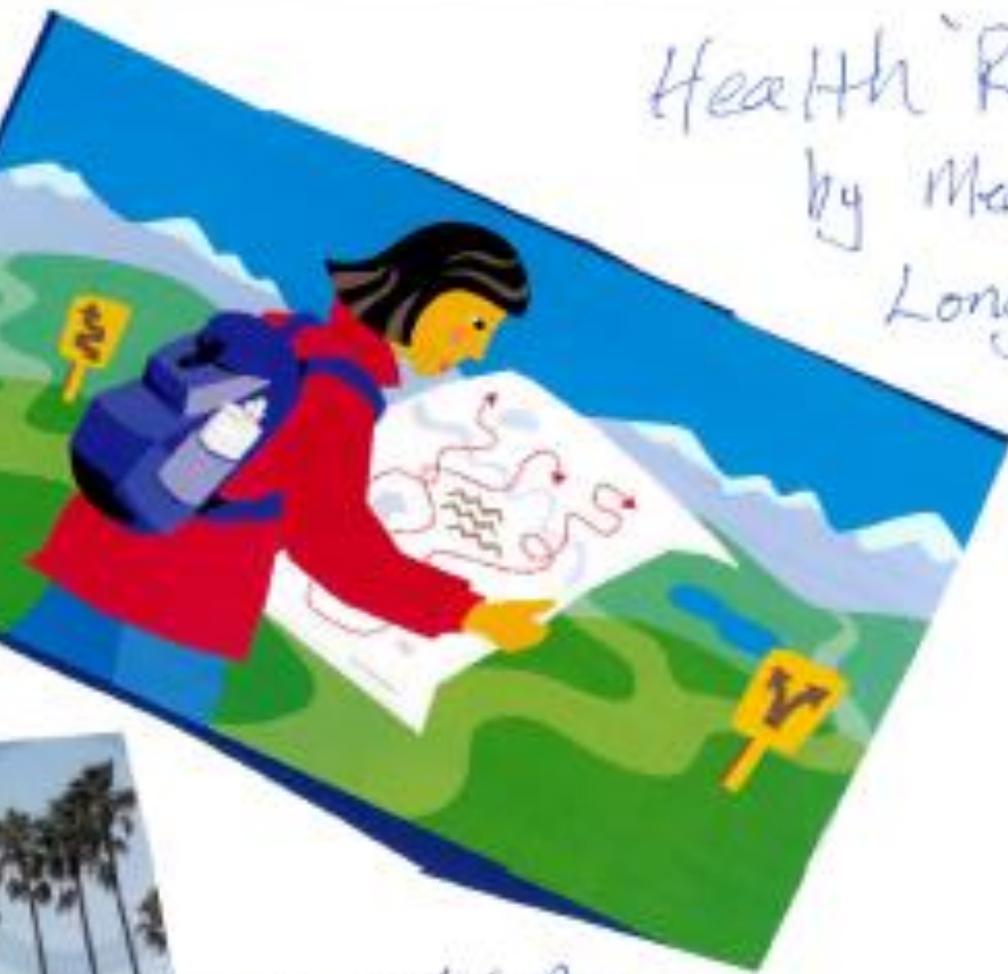


Images of medications were reminders to stay healthy because of the cost of sickness.

Images of children reminded mothers to take care of *themselves* as well as their children.

Reflection on persuasive design

What are some affordances of paper and digital media for introspection?



Health 'Road Map' available
by Media to communicate
Long & short term health
goals - humor &
encouragement as
needed.



My car can
remind me too!



"Steven" and "Ben"
imagined an app that
symbolized their health
goal as a road map, and
delivered affirmations
along the journey.

mobile app / sync.

