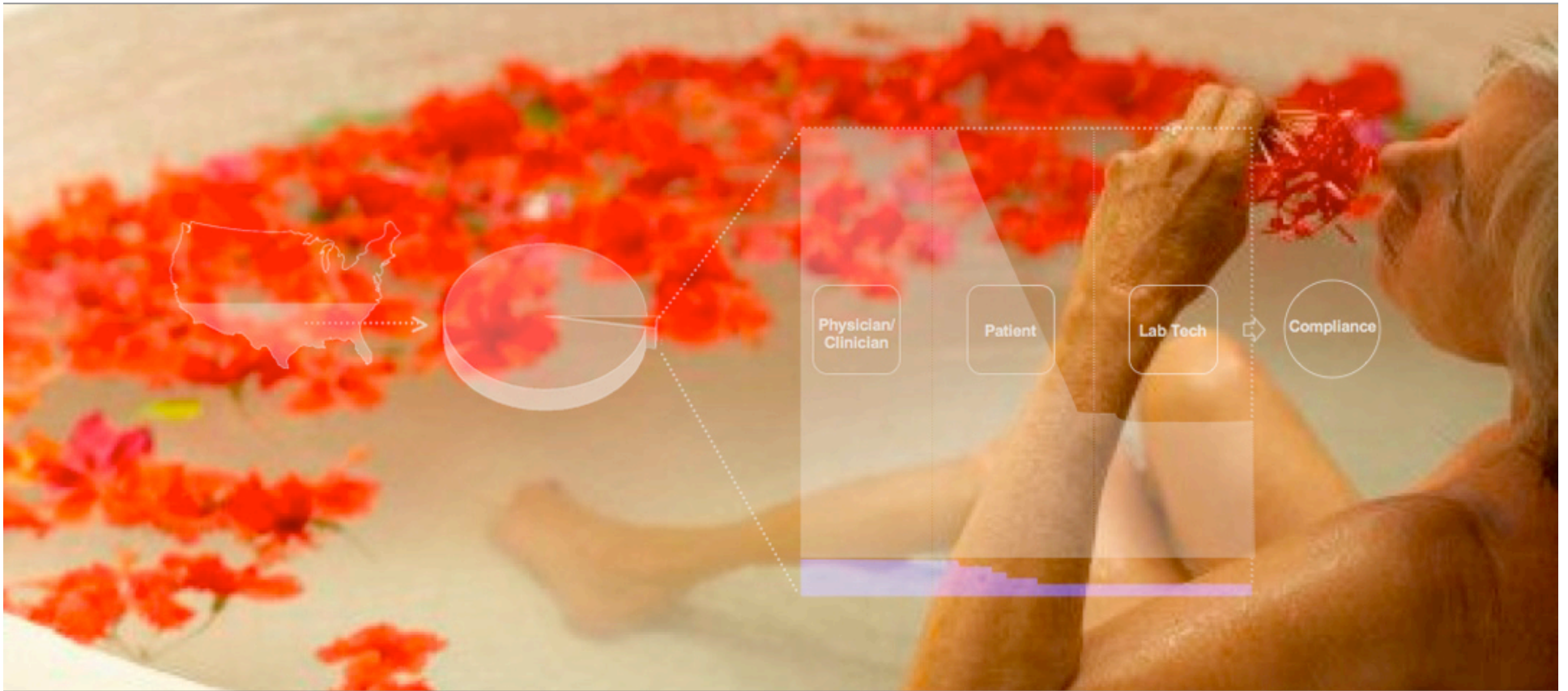


Home Health Diagnostics




The Brief : Overcoming the ‘Ick Factor’

Two-Thirds of patients given a take-home colorectal cancer screening test just throw them away because of the ‘ick factor’. How can the user experience be optimized to overcome barriers to an uncomfortable, universally repulsive test?

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QUIDEL-PINOT : Patient Interview #1 - Lisa



Lisa

- Operations manager
- 53, married
- Has conducted 3 to 4 in-home **quaiac** tests (1 one colonoscopy at age 50)
- Family history of CRC
- Often procrastinates - finishes screening test within a few months of receipt, (but has also not complied once)
- Her doctor told her not to worry about the eating restrictions
- Only hears about result of a test at the following years exam
- Initial impression of the QuickVue product: "It looks like it could hurt" assuming internal insertion.
- Typically shops at Fred Meyer, Safeway for groceries and pharmacy products.

Initial iFOBT use demo



Paper installation is easy. Lisa fastens the paper with an air "no you don't have to sit in it."

Lisa opens the tube from the wrong (right) side end. "It looks like a cap"

Sample collection is done with quick poses at maximum arms length, and with head turned, to avoid odor.

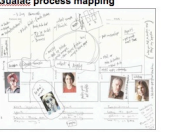
Placing the wand in the tube is done with close attention and an initial contact with the rim at 90, then rearing up to insert the wand and close the cap.

Multiple sleeves and a an unorthodox closure are confusing - ultimately Lisa decides the absorbent sleeve is not necessary.

An inordinate amount of time was spent trying to put the bagged tube into the mailing box. It seemed very "strange" that the tube does not fit down onto the box.


Lack of stamps at home and inability to use the mail slot would require a trip to the post office - "a real burner" as Lisa puts it.

Quaiac process mapping



On her own - Lisa receives no instruction and relies solely on the kit instructions. She describes gagging during the process and describes no upside except that it's finished.


QUIDEL-PINOT : Patient Interview #2 - Hal



Hal

- Custom art tile entrepreneur
- 60, lives with partner
- Has conducted 3 to 4 in-home **quaiac** tests
- Generally in good health
- No family history of CRC
- Always does test within the first week of receipt but sometimes skips yearly physical and does no test.
- IQ factor is a non-issue: to Hal it's just what has to be done and not a deterrent at all.
- Hal is not familiar with any eating restrictions with **quaiac**.
- Values result: Hal's Doctor always sends a letter informing him about the result of a test. Hal says it's a must!
- Initial impression of the QuickVue product: "well designed" but perhaps difficult for older people to handle."
- Typically shops at Fred Meyer, Albertson's for groceries and pharmacy products.

Initial iFOBT use demo



In initial instruction review, Hal mistakes "big" end of the product for the use end, (neely perceives the first process as more complex than the second)

Instructions and supplies are staged on the vanity for easy access.

Paper is placed across the seat with no problems. Hal immediately plans a leg in the paper "so you don't have to sit in it"

Hal's intuition and experience say to wipe and get dressed before collecting the sample.


In preparing to collect a sample, Hal first removes the wrong cap (again)

Collection is done from a stooping position with face directly over the sample for best visual access. Hal has some difficulty in consulting how deep to pierce the sample as there is no indication of the proper amount. Reinserting the probe into the tube is ok but Hal mentions possible problems for older people.

Two flushes are needed to get the paper to flush. The paper appears to wick moisture away which does not help it immerse in the water quickly.

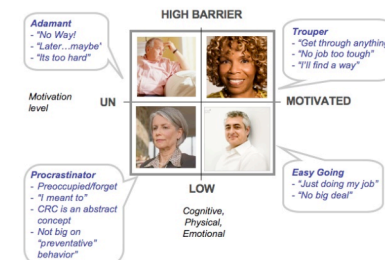
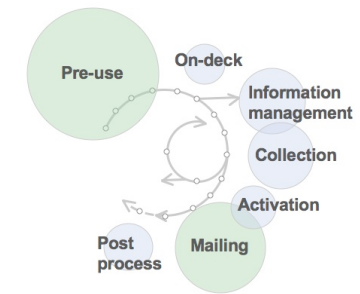
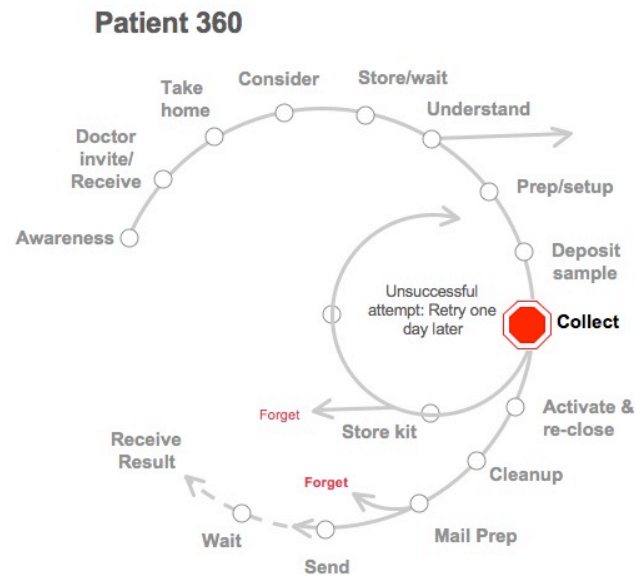
Confusion results from trying to insert the tube into the mailing box - I don't seem to fit.

Quaiac process mapping



IQ Factor: "no hum" - not phased at all by the job. Sees the process as necessary and will do whatever it takes. Contamination concern - Uses plastic grocery bags to form a work station.

Reassured by results with personal touch - feels that getting results is a mandatory part of the process - He wants to know result and gets closure from receiving them.



Contribution : Understanding Use (and avoidance)

Contextual interviews and product benchmarking led to user frameworks and activity models that pinpointed issues and opportunities.

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Motivation & Urgency

Eliminate procrastination and refusal by helping patients tie test to existing goals & aspirations.

Potential approaches:

- Help doctors identify & articulate the most powerful motivation for each patient.
- Include "call to action" on packaging and QS guide.
- Provide active and passive reminders to keep urgency high.
- Spur compliance by promoting greater cultural awareness & acceptability.



Minimize the "Ick"

Enable a more pleasant sensorial experience that reduces repulsion and non-compliance.

Potential approaches:

- Consider barriers that separate users from ick.
- Explore ways to reduce or mask odors
- Increase separation from feces
- Reduce anxiety of dealing with feces



Process Simplicity

Facilitate trouble free and correct usage through programming the process and tools for intuitive use.

Potential approaches:

- Explore ways to achieve instruction-free use
- Stag-gate functionality - require step one before 2 can be done



Platform Concept 1: The Un-docker
A concept that once activated, decouples, allowing patient to send only the test strip back to the lab (and toss the sample tube).

Platform Concept 2: Sampler #10
A flat, instruction integrated sampler that suppresses and reduces mailing issues.

Platform Concept 3: Snake Bite
A sample & test product that provides extended reach, reduced poking, and integrates activation.

Key Benefits:

- + Greatly reduces postal barriers (thickness)
- + Integrated activation eliminates the non-activation

Key Benefits:

- + Reduced ick - minimizes poking and extends reach
- + Integrated activation - automatically activates when

Potential Challenges:

- Emp-free patient mask
- New functional configuration development.

ick:

- Reduced postal barriers - Flat form fits in standard envelope, while protecting contents and requires minimal postage.

Potential Challenges:

- Integrating postal-protective structure into user friendly product.
- New functional configuration development.

Functional layout

Large flat label area promotes writing legibility and placement of other labels.

Double seal line increases sealing efficiency and reduces time used to seal.

Patient pushes seal out at a distance to take the "bite" and seal is all of the way back to the end of the strip.

After placing the sample into the card, patient activates the strip by pushing the pump button. A fluid indicator window provides clear feedback that activation has been achieved.

Patient places device back into pre-addressed envelope and sends with one stamp(?)

Patient Collects sample while following integrated instructions which increase proper and complete use. Long handle wand provides increased separation.





Contribution : Exploring the Possibilities

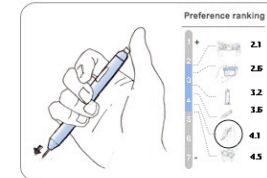
Opportunity frames drove concept and scenario generation that would address a range of use issues as well as reduce the "ick".

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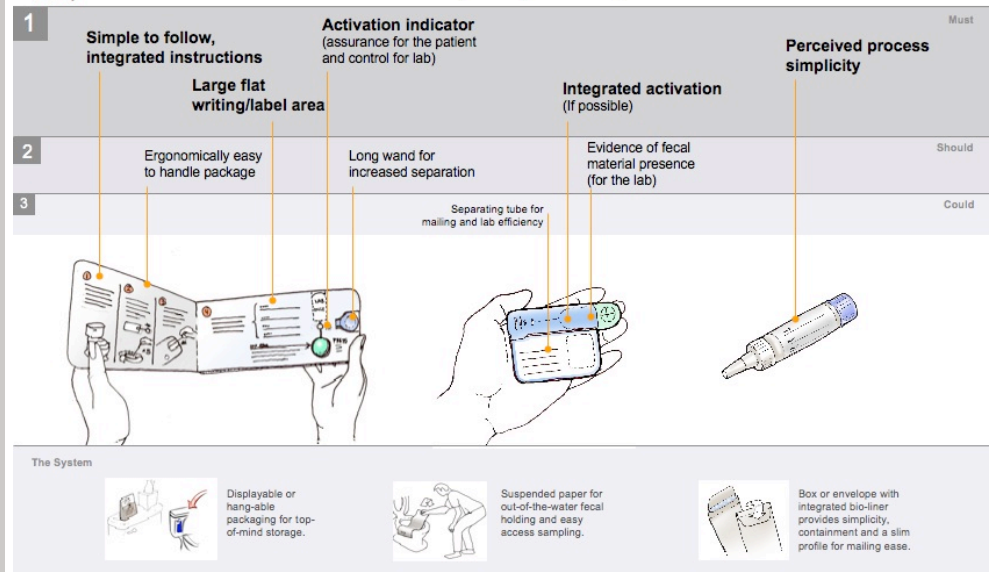


Stakeholder perspectives

-  + Take this burden off my hands!
+ Don't trust patients to analyze or comply!
-  +/- Takes the whole thing out my hands!
-  + Lets me know right away!
+ I don't want to know or trust myself to do!
-  + N/A



"Results would scare the crap out of patients" - Physician



Contribution : Concept Evaluation

Concepts were evaluated by a range of stakeholders including patients, doctors and laboratories. The strongest attributes were identified and elevated to platform concepts for further development.