Moonshine in a Healthcare Environment

Lessons from the Trenches

Jennifer Phillips/Valerie Marquardt

Kaizen Promotion Office

Virginia Mason Medical Center

Objectives

- Define purpose and intent of moonshine
- Recognize opportunities for moonshine application within your organization
- Apply high-level steps of the moonshine process to a project

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Moonshine Defined

Prototyping when a supply or piece of equipment doesn't exist that meets our unique needs or is not cost effective

- Fast and inexpensive
- Uses available materials
- Involves 'try-storming'
- Requires creative, unstructured environment

Key Concepts

- Try it before you buy it
- The learning is in the doing
- No money spent = creativity at a new level
- "Building to think" (IDEO)

The Problems We Faced…

- Staff ideas would get stuck
- Work arounds
- $ $ $

How We Evolved Into Moonshine

Exposure through manufacturing field trips

Studying/adopting lean practice

Deliberate focus on innovation R&D/prototyping

How It Fits Strategically

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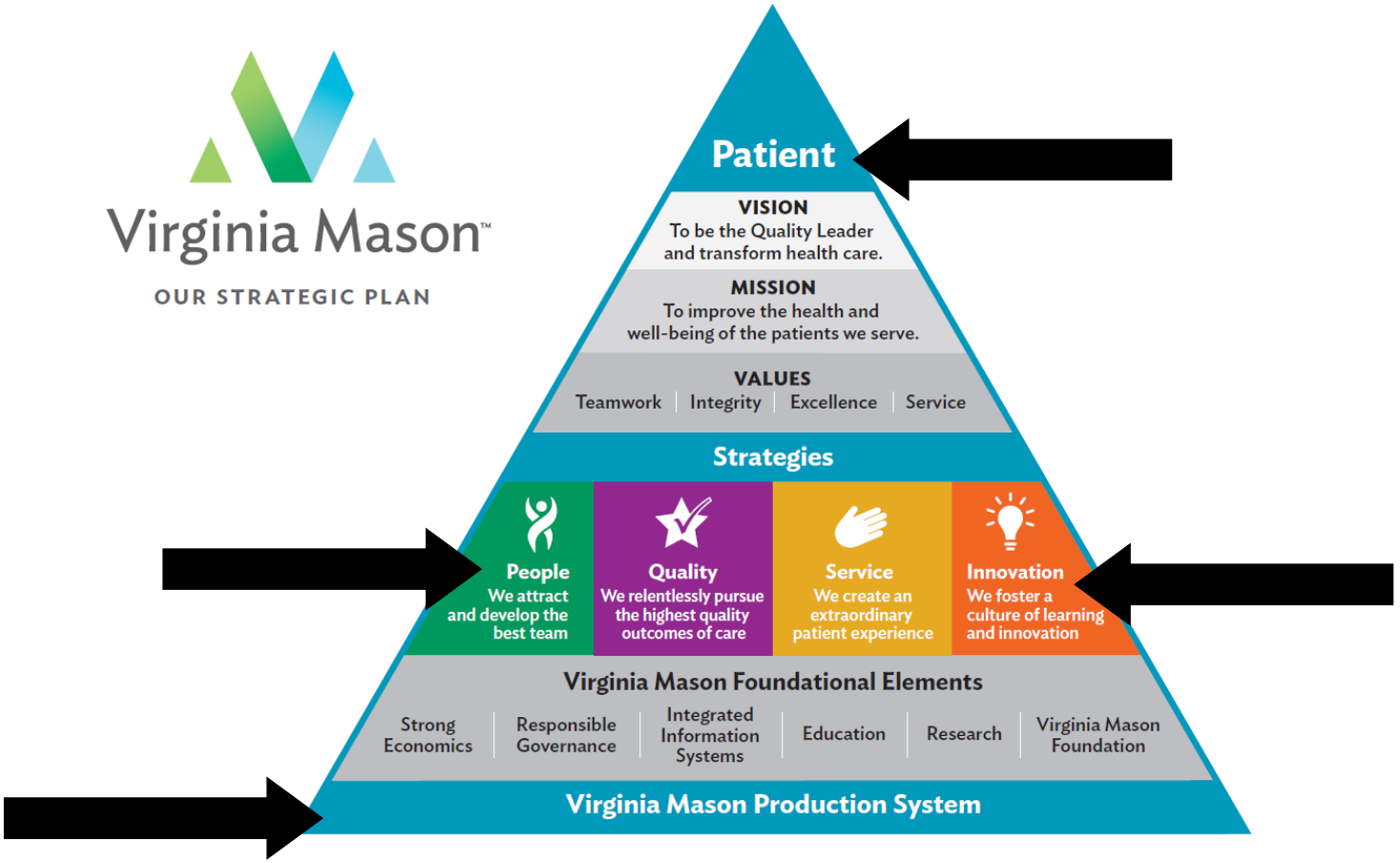
OUR STRATEGIC PLAN



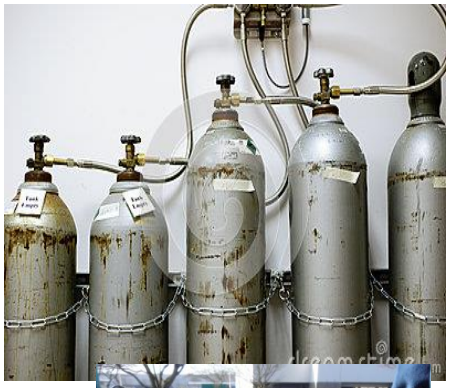
We Rely on Staff and Customer Creativity

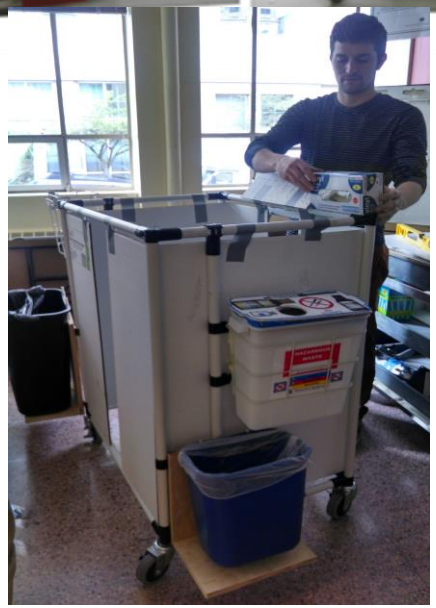
- Skills & knowledge extend beyond day jobs
- Involve staff, patients, families, board members, business partners—the sky's the limit

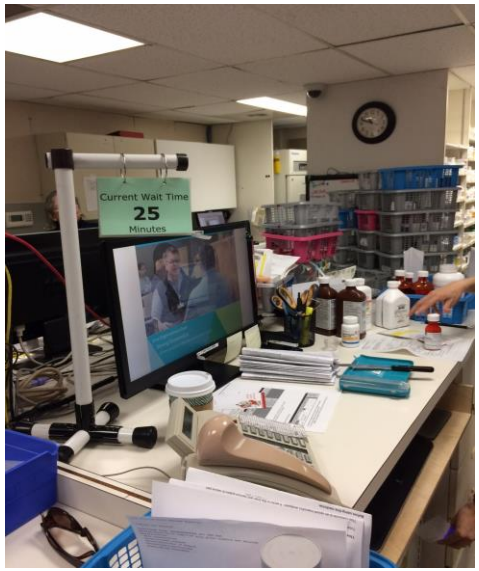
Benefits to Healthcare

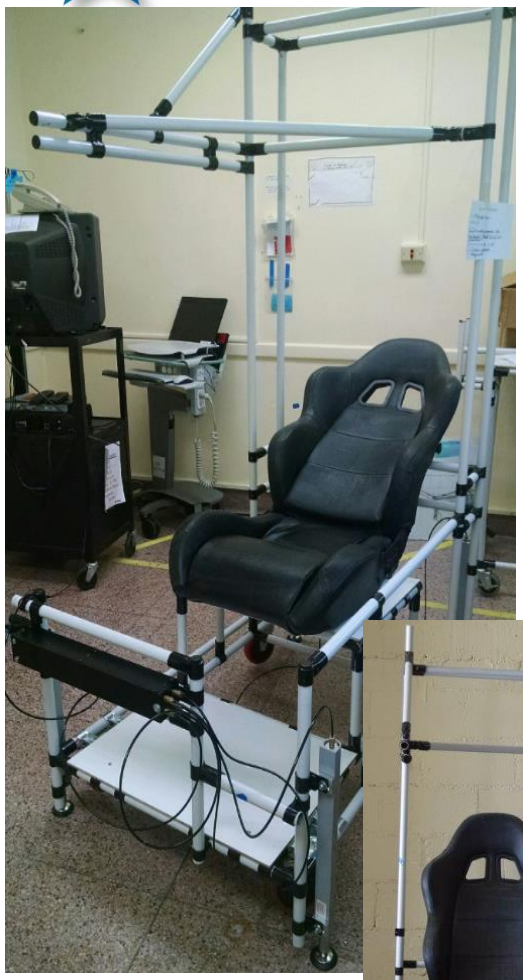
- Helps with resource constraints, cost containment
- Can fix burdensome or unsafe work arounds
- Forces understanding of critical function(s)
- Means for the actual user to create ideal product
- Can help improve patient safety and flow

Examples

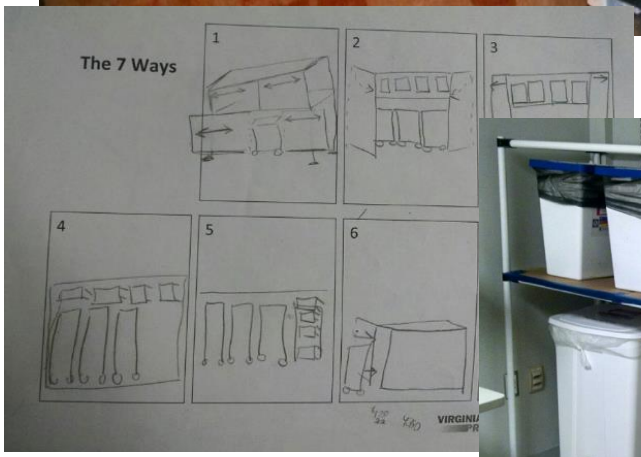




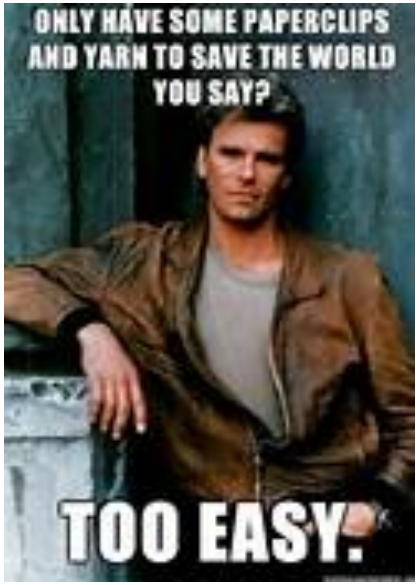




• What do you need to consider? • What is the ultimate purpose (why)? • Who are the operators using and/or affected?		Specification • Detailed description or assessment of requirements • Dimensions • Materials, etc.	How will you measure this?	Evaluation 1 = Does not do this 2 = Partially does this 3 = Does this well		
1	Does it need to be mobile?	Does it need to be moved long distances?	No	1	2	3
		Does is need to be motorized or manual? Why?	No	1	2	3
		What type of flooring (carpet/tile)?	Tile (hallway is 66"; clearance needs 44")	1	2	3
		Will it need to go on elevators? Outside?	No	1	2	3
				1	2	3
2	What elements does it need to have?	Does it need to hold a certain amount of weight?	Needs to be open on the bottom	1	2	3
		Does it need to hold a certain number/size of items?	3 lg recepticles 31X20X17; 4 sm 18x16x11	1	2	3
		Are there interdependent considerations? (ie. needs to hold O2 tank)	Can stack smaller units over large	1	2	3
		Are there access considerations? (ie. from 1 side vs all sides)	roll in access for large recepticles	1	2	3
		Are there storage considerations? (ie. needs to be collapsible/nest)	needs to be secured unit; not secured to spac	1	2	3
				1	2	3
3	Where/how v		X	1	2	3
	product be u			1	2	3
		product?	Anti-microbial?	1	2	3
			Doors to secure access	1	2	3
				1	2	3
4	Does it need		36X66X21 plus 21x18x12	1	2	3
	specific footp		If housed in hallway, needs 44" clearance	1	2	3
				1	2	3
5	Are there saf		No	1	2	3
		?	Yes, roll in access; strike zone for shelves	1	2	3
			Wipe down with Sani-wipes?	1	2	3
6	Other Consic			1	2	3
				1	2	3
				1	2	3
			TOTAL			



How About Back at Home?



- Any current moonshine examples?
- Possible issues that could be solved by moonshine?
- Who are your MacGyvers?

Steps of Moonshine

Moonshine Pathway

From concept to construct

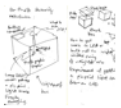
1. **Introduction to Moonshine Concepts & Support**

2. **Project Initiation**

3. **Need identified**
- Identify problem
- Define specific criteria

Research & Consults

4. **Gather information**
- Research what is on the market
- Collect input from internal stakeholders

Idea Generation


5. **Complete initial moonshine process**
- Sketch multiple ideas
- Build small-scale models
- Fast/crude

Prototype Development & Review

6. **Build prototypes & get input**
- Moonshine Lab
- As realistic as possible
- Design review

Testing cycles

7. **Test & refine prototype**
- Test
- Simulate
- Gather feedback
- Refine

Build & Use?

Final project review
PDSA results
Fabrication?
ROI?
Decision-making

Questions? E-mail Kaizen Promotion Office (Attn: Moonshine), click on Idea Central on V-Net, or call ext. 37621 KPO

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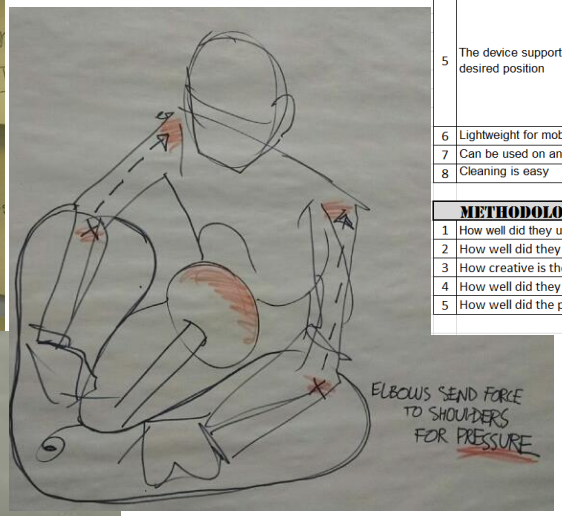
Is Moonshine the Right Thing? 1

- Do you understand the impact of the product (or lack of) on operators and flow 2
- Do you need a product that does not exist in the marketplace? 3
- Does a product exist but it does not meet your unique needs?
- Is it cost effective to buy it?
- Do you need test an idea before you purchase?

Step 4



EVALUATION - HOW WELL DOES EACH PROTOTYPE MEET THE SPECIFICATIONS?			1 = Does not do this 2 = Partially does this 3 = Does this well		
	FUNCTIONAL SPECIFICATIONS		Score for Model #1	Score for Model #2	Score for Model #3
1	Device is stable independently	No assistance is required to secure the device while in use			
2	Device is easily adjustable and supportive of all body types (ht, wt, girth)	Takes ≤ 5 secs per adjustment in it's final form			
		No more than 5 adjustments			
3	Line management	Separate flows for monitor lines and IV lines to secure and allow access by provider			
4	Space requirements	Limit footprint to 2' x 1'			
5	The device supports the patient in the desired position	Patient's hips initial 90 degrees adjustable forward to 60 degrees			
		Visibly reverse curve out of lower back from convex to concave			
		Back has to comfortably sustain a reverse arched position			
		Arms supported in a neutral position preventing forward slippage			
		Feet must be supported			
		Head must be supported			
		Face is visible and can accommodate an O2 mask or nasa cannula			
6	Lightweight for mobility	Could weigh < 15 pounds in it's final state			
7	Can be used on any bed or stretcher	Can be placed and patient positioned within 90 secs			
8	Cleaning is easy	< 15 seconds to complete			
		Total Score			
	METHODOLOGY				
1	How well did they use the 11 steps of moonshine/3P process to tell their story (see attached)?				
2	How well did they rise to the level of change requested?				
3	How creative is the prototype compared to current state?				
4	How well did they use available resources to meet the functional specifications?				
5	How well did the prototype meet the functional specifications?				
		Total Score			

Step 5

Seahawks Team

Team Seahawks Roster

Captain: Debbie Cutchin
Adam Lefebvre
Jacqui Owen
Michael Kimball
Lisa Lingenbrink
Karen Carter (Evergreen)

Sounders Team

Team Sounders Roster

Captain: Joleen Bishop
Marla Brown
Carly Magnusson
Lou Lund
Susan Downey

Mariners Team

Mariner's Roster

Captain: Val Marquardt
Michelle Reesh (Evergreen)
Chris Page
Matt Liedtke
Erik Borgesen

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Step 6

Moonshine Design Review #2 Agenda (typically up to 30')

Goal: Decide whether to proceed with constructing a testable prototype

Required materials: Moonshine pathway, project blueprint, vendor resource directory

Required participants:

- ☐ Project initiator
- ☐ Representative/sponsoring leadership
- ☐ Moonshine facilitator
- ☐ Other roles identified as crucial at this stage *(e.g., Infection Control, Risk Management, Corporate Compliance, Patient Safety, Design & Construction, Information Systems, Intellectual Property Ventures)*

Agenda

- ☐ Introductions/roles
- ☐ Moonshine pathway
- ☐ Review project results to date and supportive documentation
- ☐ Review implications influencing next steps
  - Unresolved issues, challenges, concerns
  - Regulatory impacts/IRB concerns
  - Financial analysis
- ☐ Decide whether project will proceed
  - Does the current solution still seem promising to solve the problem?
  - Does this still fit within current priorities or is the issue still urgent?
  - Is there sufficient bandwidth of crucial participants to participate, or when would be better timing?
  - Did the team and stakeholders raise concerns that need addressing first, or would suggest not proceeding?
  - Cost impacts, including whether we will need to purchase expertise to ensure a structurally sound prototype for testing? (e.g., device needs to be weight bearing, attach to equipment, etc.)
- ☐ Next steps:
  - If proceeding, what are the details (what who, when, additional resources needed)
  - If not proceeding, agree on communication and recognition process and whether to initiate alternative kaizen work

Step 7

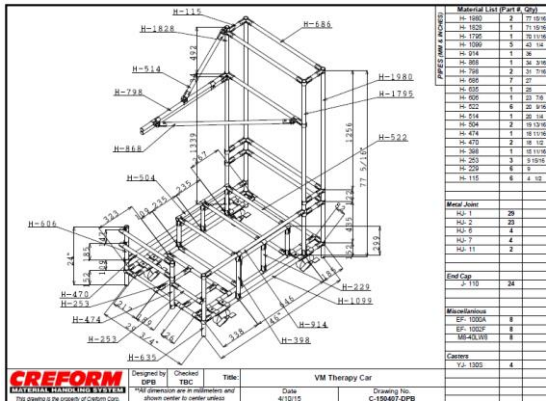
Gift of Learnings

- Identify core functions

- Connect with nature

- Not all projects are created equal

VS



Struggles

- Project diversity
- System complexities
- Regulatory requirements
- Technical expertise
- Inertia
- Prioritizing

Key Messages

- Anyone can do it; just jump in and get your hands dirty
- Recognize and celebrate your team's ideas and efforts
- The faster you try, the faster you learn
- Deny expensive materials to begin with

Purpose-Driven Excellence

- Build organizational commitment to a lean journey
  - Both process improvement and product improvement
- Incorporate intentional focus on innovation as part of that lean journey
  - Support team members in being creative and tackling problems/issues in daily work

Discussion

Thank You!

Your opinion is important to us!

Please take a moment to complete the survey using the conference mobile app.

Session: WP/21

Presentation Title Moonshine in a Healthcare Environment

Your name Jennifer Phillips, Valerie Marquardt

Company name Virginia Mason Medical Center

email address jennifer.phillips@virginiamason.org, valerie.marquardt@virginiamason.org