“If you are dreaming about it... you can do it.”

Sensei Chihiro Nakao
Virginia Mason

- Integrated health care system
- Became two hospital system in January 2016, with Yakima Memorial affiliation
- 501(c)3 not-for-profit
- 336-bed hospital
- Nine locations
- Graduate Medical Education
- Research Institute
- Foundation
- Virginia Mason Institute

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Time for a Change

Year 2000

Issues

– Survival
– Retention of the Best People
– Loss of Vision
– Build on a Strong Foundation

Leadership Change

A Defective Product
The Challenge of Healthcare

- Poor Quality..............................3% defect rate
- Impact on individuals..............100% defect
- Cost of poor quality.................Billions of dollars
- Cost of healthcare to those who pay..........................Unaffordable
- Access...........................................Millions
- Morale of workers......................Unreliable systems
Patient

VISION
To be the Quality Leader and transform health care.

MISSION
To improve the health and well-being of the patients we serve.

VALUES
Teamwork | Integrity | Excellence | Service

Strategies

People
We attract and develop the best team

Quality
We relentlessly pursue the highest quality outcomes of care

Service
We create an extraordinary patient experience

Innovation
We foster a culture of learning and innovation

Virginia Mason Foundational Elements

Strong Economics | Responsible Governance | Integrated Information Systems | Education | Research | Virginia Mason Foundation

Virginia Mason Production System

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Why is Change So Hard?

Culture
Lack of Shared Vision
Misaligned Expectations
No Urgency
Ineffective Leadership
“We change or we die.”

— Gary Kaplan, VMMC Professional Staff Meeting, October 2000

The lead story is titled “The Biggest Mistake of Their Lives” and chronicles four survivors of medical errors.

The article goes on to say that in 2003, as many as 98,000 people in the United States will die as a result of medical errors.
Investigators: Medical mistake kills Everett woman

Hospital error caused death
Clash of “Promise” and Imperatives

Traditional “Promise” Legacy Expectations

- Autonomy
- Protection
- Entitlement

Imperatives

- Improve safety/quality
- Implement EHR
- Create service experience
- Be patient-focused
- Improve access
- Improve efficiency
- Recruit/retain quality staff
## Aligned Expectations

### Physician Compact

**VIRGINIA MASON MEDICAL CENTER PHYSICIAN COMPACT**

<table>
<thead>
<tr>
<th>Organization’s Responsibilities</th>
<th>Physician’s Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Leadership</strong></td>
<td><strong>Leadership</strong></td>
</tr>
<tr>
<td>Physician Excellence</td>
<td>Physician Excellence</td>
</tr>
<tr>
<td>- Expert and ready to support all patient care and the organization</td>
<td>- Expert and ready to support all patient care and the organization</td>
</tr>
<tr>
<td>- Support career development and professional satisfaction</td>
<td>- Support career development and professional satisfaction</td>
</tr>
<tr>
<td>- Endorse, respect, and protect physicians and staff</td>
<td>- Endorse, respect, and protect physicians and staff</td>
</tr>
<tr>
<td><strong>Collaboration</strong></td>
<td><strong>Collaboration</strong></td>
</tr>
<tr>
<td>Live, learn, and collaborate to ensure optimal care and the organization</td>
<td>Live, learn, and collaborate to ensure optimal care and the organization</td>
</tr>
<tr>
<td>- Embrace technology and information sharing to support care and the organization</td>
<td>- Embrace technology and information sharing to support care and the organization</td>
</tr>
<tr>
<td>- Support the organization’s mission and vision</td>
<td>- Support the organization’s mission and vision</td>
</tr>
<tr>
<td><strong>Board Compact</strong></td>
<td><strong>Board Compact</strong></td>
</tr>
<tr>
<td>Address and resolve issues that impact physician–patient relationships</td>
<td>Address and resolve issues that impact physician–patient relationships</td>
</tr>
<tr>
<td>- Ensure physician satisfaction and engagement</td>
<td>- Ensure physician satisfaction and engagement</td>
</tr>
<tr>
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Virginia Mason
OUR STRATEGIC PLAN

Patient

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The VMMC Quality Equation

\[ Q = A \times \left( \frac{O + S}{W} \right) \]

- **Q**: Quality
- **A**: Appropriateness
- **O**: Outcomes
- **S**: Service
- **W**: Waste
“You should submit wisdom to the company.

If you don’t have any wisdom to contribute, submit sweat.

If nothing else, work hard and don’t sleep.

Or resign.”
Think Different

- $\frac{1}{2}$ the human effort
- $\frac{1}{2}$ the space
- $\frac{1}{2}$ the equipment
- $\frac{1}{2}$ the inventory
- $\frac{1}{2}$ the investment
- $\frac{1}{2}$ the engineering hours
- $\frac{1}{2}$ the new product development time
Seeing with our Eyes
Japan 2002
Hitachi Air Conditioning

Team Leader Kaplan reviewing the flow of the process with Drs. Jacobs and Glenn
How are air conditioners, cars, looms and airplanes like health care?

• Every manufacturing element is a production processes

• Health care is a combination of complex production processes: admitting a patient, having a clinic visit, going to surgery or a procedure and sending out a bill

• These products involve thousands of processes—many of them very complex

• All of these products involve the concepts of quality, safety, customer satisfaction, staff satisfaction and cost effectiveness

• These products, if they fail, can cause fatality
Visual Control for Safety

5S Anesthesia Shadow Board - Before
Central Line Insertion Standard Work

**Before**

- Maximum Barrier Protection
- Thyroid
- Angio Drapes

**During**

- Transducer Kit in Top Drawer of Cart
- Transducer Method
- Manometer Method

**After**

- "Approved to use Date/Initial"
- Yellow – top of cart
- White – in chart progress notes
- Complete Paperwork
Stopping the line
Created August 2002

- Leadership from the top
- “Drop and run” commitment
- 24/7 policy, procedure, staffing
- Legal and reporting safeguards
Cumulative Patient Safety Alerts (PSAs)

- 1,000 PSAs as of July 2005
- 10,000 PSAs as of March 2008
- 25,000 PSAs as of Jan. 2012
- 50,000 PSAs as of Sept. 2014
- 75,000 PSAs as of Apr. 2017

75,061 PSAs as of April 10, 2017
Effectiveness of Safety Program

![Graph showing the comparison between PSAs Reported and Reported Claims from '04-'05 to '13-'14. The graph indicates a decrease in reported claims and an increase in PSAs reported over the years.](image-url)
Reduction of Hospital Professional/General Liability Premiums

% change from previous year, with 75% overall reduction in premium since 2004-05

Expecting at 10% Decrease in this next year
Aligning Providers with Customers

1. Evidence based care
2. 100% patient satisfaction
3. Same-day access
4. Rapid return to function
5. Affordable price for buyer and seller
Evidence-based Imaging

No Costly Vendor-based Inspection Steps

Mistake-proofing Implemented

Reduction in imaging

Headache: -23%
Low back pain: -23%
Sinusitis: -27%

“Nursing Cells” – Results > 90 days

RN time available for patient care = 90%!

Before
- RN # of steps = 5,818
- PCT # of steps = 2,664
- Time to the complete am cycle of work = 240’
- Patients dissatisfaction = 21%
- RN time spent in indirect care = 68%
- PCT time spent in indirect care = 30%
- Call light on from 7a-11a = 5.5%
- Time spent gathering supplies = 20’

After
- RN # of steps = 846
- PCT # of steps = 1256
- Time to the complete am cycle of work = 126’
- Patients dissatisfaction = 0%
- RN time spent in indirect care = 10%
- PCT time spent in indirect care = 16%
- Call light on from 7a-11a = 0%
- Time spent gathering supplies = 11’
VMPS Method: One Piece Flow
Flow Stations
Team Based Care

Medical Assistant:
- Standard rooming sequences
- Review Health Maintenance Module
- Shared documentation
- Coordinating provider “flow” through the day

RN:
- Patient assessment
- Empowerment of patient for self care
- Protocol driven-teaching and coaching for chronic conditions
- Nursing procedures

Pharmacist:
- Medication management for chronic conditions
- Advanced protocols for disease state management

Provider:
- Diagnosis and treatment of new problems
- Oversight of complicated problems
- Minor surgical and diagnostic procedures
- Mentor and coach for team based care
Leveling the Workload

<table>
<thead>
<tr>
<th>Minutes</th>
<th>Before Setup</th>
<th>After Setup</th>
</tr>
</thead>
<tbody>
<tr>
<td>MA</td>
<td>Setup</td>
<td>Setup</td>
</tr>
<tr>
<td>MD</td>
<td>Setup</td>
<td>Setup</td>
</tr>
</tbody>
</table>

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### VMPS Method: Mistake Proofing

#### The Health Maintenance Module

**PowerChart Office - (and a few to do) Health Maintenance**

<table>
<thead>
<tr>
<th>Pending Expectations</th>
<th>Present - April 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>CA Breast Cancer Screen High Risk (40-100yrs)</td>
<td>Postponed</td>
</tr>
<tr>
<td>CV Lipids AT GOAL &lt;100 High Risk (40-100yrs)</td>
<td>Refused</td>
</tr>
<tr>
<td>CV Diabetes Monofilament Foot Exam (20-100yrs)</td>
<td>Refused</td>
</tr>
<tr>
<td>CA Cervical Cancer Screening (21-65yrs)</td>
<td>Overdue</td>
</tr>
<tr>
<td>CV Diabetes HbA1c not at goal (18-100yrs)</td>
<td>Overdue</td>
</tr>
</tbody>
</table>

**Recently Satisfied Expectations**

<table>
<thead>
<tr>
<th>Expectation</th>
<th>Status</th>
<th>Satisfy Type</th>
<th>Administration</th>
<th>Satisfy Reason</th>
<th>Priority</th>
<th>Last Satisfied By</th>
<th>Approximate Due Date</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>CA Breast Cancer</td>
<td>Satisfied</td>
<td>Manual</td>
<td>03/01/08</td>
<td>Routine Screening</td>
<td>High</td>
<td>Ashley, Tiffany L</td>
<td>03/01/08</td>
<td>right sided mamm..</td>
</tr>
<tr>
<td>CA Cervical Cancer</td>
<td>Satisfied</td>
<td>Result</td>
<td>08/08/08</td>
<td>High</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CV Diabetes HbA1c</td>
<td>Satisfied</td>
<td>Manual</td>
<td>02/25/08</td>
<td>High</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CV Diabetes HbA1c</td>
<td>Satisfied</td>
<td>Result</td>
<td>08/31/07</td>
<td>High</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CV Diabetes HbA1c</td>
<td>Satisfied</td>
<td>Result</td>
<td>12/31/07</td>
<td>High</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CV Diabetes HbA1c</td>
<td>Satisfied</td>
<td>Result</td>
<td>04/03/06</td>
<td>High</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CV Diabetes HbA1c</td>
<td>Satisfied</td>
<td>Result</td>
<td>02/25/06</td>
<td>High</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CV Diabetes HbA1c</td>
<td>Satisfied</td>
<td>Result</td>
<td>02/25/05</td>
<td>High</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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FLOW ROUNDING

Each Intern seeing one patient at a time.

Complete the work for each patient before moving to the next patient.

The attending and resident “toggling” from one intern to the other.
### Build To Order Results

<table>
<thead>
<tr>
<th>EVENT</th>
<th>OLD</th>
<th>NEW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Craniotomy</td>
<td>SPD Set Up = 34:00 min</td>
<td>SPD Set Up = 18:27 min</td>
</tr>
<tr>
<td></td>
<td>OR Set Up = 24:09 min</td>
<td>OR Set Up = 2:34 min</td>
</tr>
<tr>
<td>Laminectomy</td>
<td>SPD Set Up = 34:00 min</td>
<td>SPD Set Up = 20:15 min</td>
</tr>
<tr>
<td></td>
<td>OR Set Up = 24:09 min</td>
<td>OR Set Up = 2:29 min</td>
</tr>
<tr>
<td>Minor Set</td>
<td>OR Set Up = 19:21 min</td>
<td>OR Set Up = 0:20 sec</td>
</tr>
</tbody>
</table>
World-Class Management

The World-Class Management System is a leadership system that provides focus, direction, alignment, and a method of management for daily work.
Set Priorities that Align with the Vision

Long Term Vision

5 year Plans

Annual Goals

KPO Priorities

Clinic Priorities

Section Priorities
Tuesday “Stand Up”

- KPO aligned with operational executive leadership
- Executive sponsorship with accountability for sustained results
- Education
- Standardization of tools, results reporting, and communication
Daily Management: Leaders Have Two Jobs

1. Run your business
2. Improve your business
Leaders Need to Be Idea Coaches

• Support staff in working on their ideas, but don’t do it for them
• Encourage root cause thinking
• Be straightforward with feedback
• Ask lots of questions to draw out creativity and critical thinking

This will be a big shift for some managers (i.e. being a coach and not the key problem-solver and rescuer!)
“Distress” and Adaptive Work

Effective Sponsorship

- Vision of success
- Set stretch goals
- Provide resources
- Remove barriers
- “Fail forward fast”
- Celebrate achievements
Genchi Genbutsu

- “It’s all lies”
- Go where the action is
- Know your people and let them know you
- Vulnerability is ok
- Connect the dots
Holding the Gains

- It takes hearts and minds
- Great people and great systems
- The gift of time is a treasure
- Accountability and audit
Our Journey

Toyota Production System Introduced to VMMC

Mary L. McClinton: Fatal medical error

CPOE Go Live

Declaration of Organizational Goal: Patient Safety

IHl3 5 Million Lives

Leapfrog Governance Award

IHl3 100,00 Lives

MDM RPIW6

Time Out ST-PRA5

Just Culture

Standard Quality Goal Reporting Process

AHRQ4 Safety Culture Survey: 81% Participation

Patient Safety Risk Registry

AHRQ4 Safety Culture Survey: 84% Participation

Patient Safety Risk Registry

Respect for People Training

1. Institute of Medicine
2. Adverse Drug Events Prevention Team
3. Institute for Healthcare Improvement
4. Agency for Healthcare Research and Quality
5. Sociotechnical Probabilistic Risk Assessment
6. Must Do Measure Rapid Process Improvement Workshop
Chosen By Businesses:

1. Pacific Business Group on Health (PBGH)
2. Lowe's
3. Walmart
Overview: Virginia Mason’s Centers of Excellence and Bundled Care

- Launched 1st bundled care contract in 2013 with Walmart
- Focus on clinical appropriateness
- Controlled and predictable costs (remove variability)
- Improve outcomes, patient satisfaction

Today:
- Many Employers: Walmart, Lowes, McKesson, Jet Blue, etc.
- Bundles include: Cardiac surgery, orthopedic, spine (including complex), bariatric, gynecology and general surgery.
- Third Party Administrators: (EdisonHealth, Employer Direct, Health Design Plus)
- Care for patients from across the United States
What are we Selling in a Bundle?

Appropriateness—avoidance of inappropriate surgeries

High Quality, Reliable Care

Predictable Price

Exceptional Patient Experience

This is not about rock-bottom pricing only
Lessons Learned To Date

• This is a care model—not just a payment model
• Our work in many parts of our business have come together over time to make this program successful
• Data is needed for the quality work we are doing
• Many patients do not require surgery – managing patient expectations can be challenging
• Growing interest in COEs from employers, TPAs and insurers
Respect for People refers to how we treat each other as we work together to create the perfect patient experience.
Top 10 Ways to Show Respect to People

1. **Listen to understand.** Good listening means giving the speaker your full attention. Non-verbal cues like eye contact and nodding let others know you are paying attention and are fully present for the conversation. Avoid interrupting or cutting others off when they are speaking.

2. **Keep your promises.** When you keep your word you show you are honest and you let others know you value them. Follow through on commitments and if you run into problems, let others know. Be reliable and expect reliability from others.

3. **Be encouraging.** Giving encouragement shows you care about others and their success. It is essential that everyone at VM understand their contributions have value. Encourage your co-workers to share their ideas, opinions and perspectives.

4. **Connect with others.** Notice those around you and smile. This acknowledgement, combined with a few sincere words of greeting, creates a powerful connection. Practice courtesy and kindness in all interactions.

5. **Express gratitude.** A heartfelt “thank you” can often make a person’s day and show them you notice and appreciate their work. Use the VM Applause system, a handwritten note, verbal praise, or share a story of “going above and beyond” at your next team meeting.

6. **Share information.** When people know what is going on, they feel valued and included. Be sure everyone has the information they need to do their work and know about things that affect their work environment. Sharing information and communicating openly signals you trust and respect others.

7. **Speak up.** It is our responsibility to ensure a safe environment for everyone at VM; not just physical safety but also mental and emotional safety. Create an environment where we all feel comfortable to speak up if we see something unsafe or feel unsafe.

8. **Walk in their shoes.** Empathize with others; understand their point of view, and their contributions. Be considerate of their time, job responsibilities and workload. Ask before you assume your priorities are their priorities.

9. **Grow and develop.** Value your own potential by committing to continuous learning. Take advantage of opportunities to gain knowledge and learn new skills. Share your knowledge and expertise with others. Ask for and be open to feedback to grow both personally and professionally.

10. **Be a team player.** Great teams are great because team members support each other. Create a work environment where help is happily offered, asked for and received. Trust that teammates have good intentions. Anticipate other team members’ needs and clearly communicate priorities and expectations to be sure the workload is level loaded.
Do we put patient first?
Compelling science
Staff resistance
Staying the course
Organizational Pride
VMMC Influenza Vaccination Rates

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Requirements for Transformation

Improvement Method

Technical & Human Dimensions of Change

Sense of Urgency
Visible & Committed Leadership
Shared Vision
Aligned Expectations
Ongoing Challenges - Culture

- Patient First
- Belief in Zero Defects
- Professional Autonomy
- “Buy In”
- “People are Not Cars”
- Pace of Change
- Victimization
- Leadership Constancy
- Rigor, Alignment, Execution
- Drive for Results
Transforming Healthcare

From
- Provider First
- Waiting is Good
- Errors are to be Expected
- Diffuse Accountability
- Add Resources
- Reduce Cost
- Retrospective Quality Assurance
- Management Oversight
- We Have Time

To
- Patient First
- Waiting is Bad
- Defect-free Medicine
- Rigorous Accountability
- No New Resources
- Reduce Waste
- Real-time Quality Assurance
- Management On Site
- We Have No Time
“Leaders are Dealers in Hope.”

Napoleon Bonaparte
“In times of change, learners inherit the earth, while the learned find themselves beautifully equipped to deal with a world that no longer exists.”

- Eric Hoffer