

The Changing Nature of Work – and RTW

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Changing work and workforce

- Shift from brick-and mortar to internet
- Loss of manufacturing
- Automation / AI
- Gig economy / temp employment
- Low job tenure
- Aging workforce
- Chronic illness
- Costs of health care



The Challenge

- Work and workforce is rapidly changing
- This has significant implications for RTW
- Traditional RTW approaches may not apply
- - but can be adapted to achieve success



High-pay, low skill blue collar jobs are vanishing – without replacement by new occupations



A worker at a steel mill in California. Millennial technology has enabled steel plants to cut 75 percent of employees over five decades, while keeping production the same. (source: https://www.bbc.com/news/business-35484444)



Traditional RTW framework

- Stable company, one location, manufacturing
- Stay until retirement, with pension
- Expect RTW at same employer
- Supervisor engagement, local health care
- Many alternative duty opportunities, coworker support




In-store retail is shrinking as well



Sears - anchor store for ValleyView Center in Dallas - now all closed



...even low-skill jobs are threatened



Sketchers distribution center in California – fully automated



- **Top tier:** programmers, designers, mostly living in big cities; able to work remotely - decentralized expert techs
- **Many others:** Low wage, multiple jobs, long hours, less security, living far from work, commuting, lone work, loss of co-workers




...leaving only those technical experts needed to install and service the equipment



Panera Bread, S Willow St, Manchester NH



Changing nature of employment

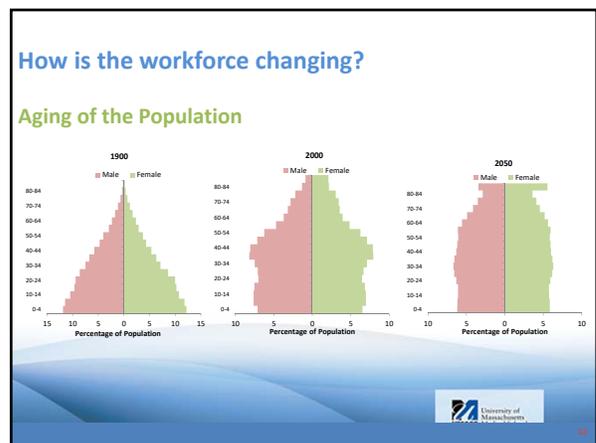
- Work: remote, lone, less supervised
- Employment: contracting vs employment, temporary, multiple jobs, more commuting, less benefits, long workdays
- Millennials don't expect pension, long tenure, job attachment

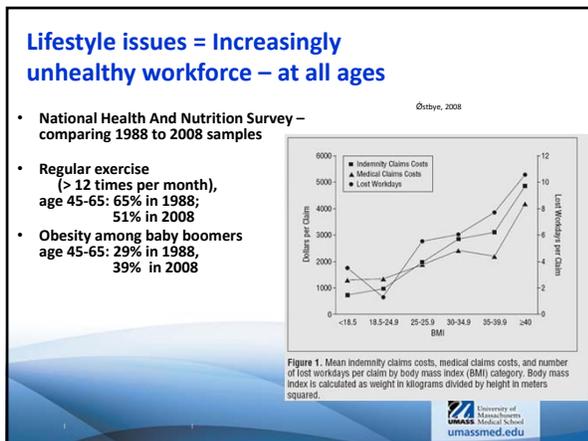
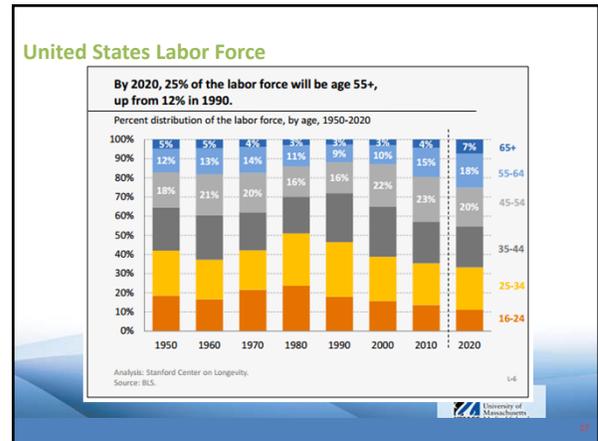
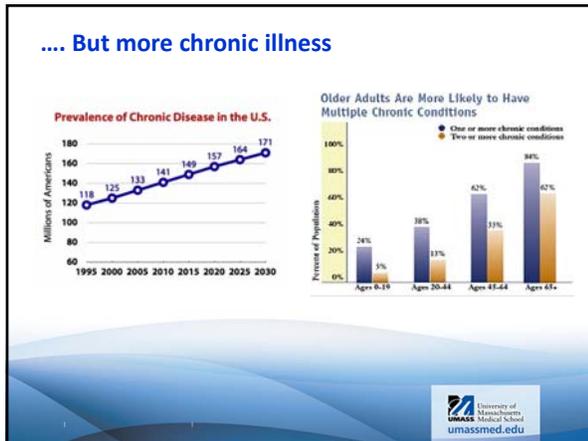
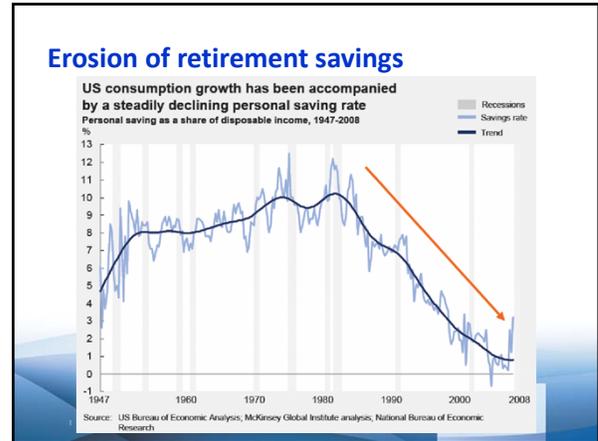
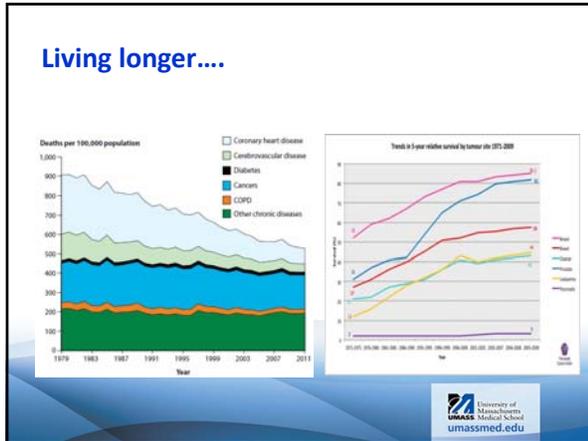



Next AI frontiers– disruptive technology

- Programmed patterns → learning, adaptive responses







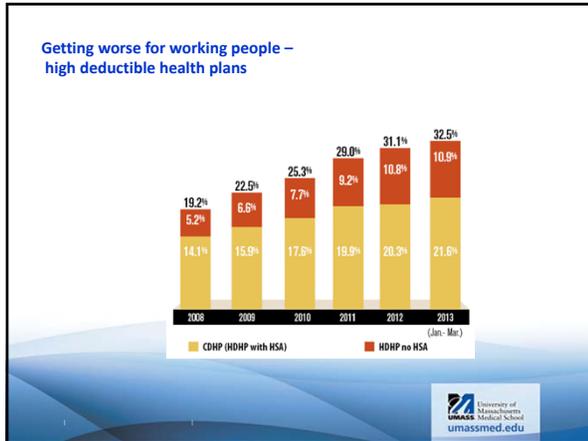
Relative increase in lost time, compared to age 15-24, due to age vs. chronic conditions (WC, British Columbia)

	Relative increase* (%)
Age (years)	
15-24	
25-34	23.2
35-44	42.5
45-54	52.0
>55	68.2
Chronic condition	
Osteoarthritis	4.4
Diabetes	6.8
Hypertension	0.1
Coronary heart disease	-0.4
Depression	3.5

* Controlling for body part, job physical demands, industry, year of injury

Smith, Bielecky, Ibrahim et al. ScJWEH, 2009

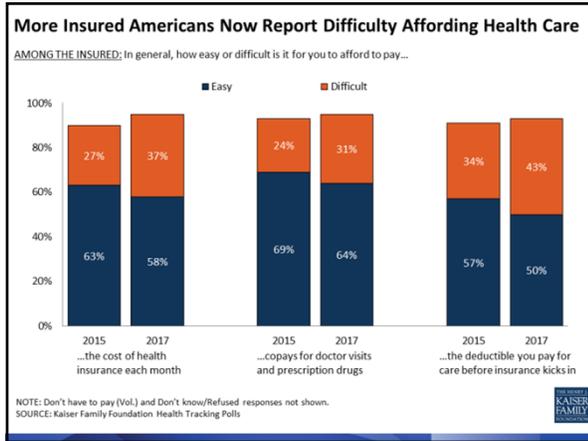
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Implications for RTW ?

- Shift from brick-and mortar to internet
- Loss of manufacturing
- Automation / AI
- Gig economy / temp employment
- Remote work
- Low job tenure
- Aging workforce
- Chronic illness
- Costs of health care

Source: University of Massachusetts Lowell Medical School, umassmed.edu



As work and the workforce changes, our RTW strategies must also adapt – but how?

Source: University of Massachusetts Lowell Medical School, umassmed.edu



Prior research – some limitations

- Most RTW intervention studies in large traditional workplaces (banks, airlines, Fortune 500 manufacturing companies)
- Very few target workers with chronic illness, multiple jobs, post-retirement, etc.
- Some excellent qualitative studies do address evolving workforce/workplace

Source: University of Massachusetts Lowell Medical School, umassmed.edu

Good news – key strategies to improve RTW are effective across MANY populations, workplaces, contexts (Franche et al.)

- Early supportive contact with worker
- Work accommodation
- Contact between healthcare provider and work
- Ergonomic work site visits
- RTW policies and RTW coordinator



Technology and health care

- Telemedicine – American Well, Teladoc, DoctorsOnDemand, etc
 - 15M Americans had a virtual visit with a health care provider in 2016
- Remote monitoring, dx, evaluation, treatment
 - Remote HR arrhythmia detection – disposable patches
 - PhysIQ / Phillips / Nokia / Kinsa, uBiome, CloudDX
 - Evaluate spit, poop, urine, breath, vital signs
 - Mental health and PT – Ginger.io Reflexion Health
- Key to manage WD in remote / distributed workforce? More acceptable to millennials?
- Greater access to practitioners with RTW expertise and interest?



1. Return to work(ability) for a displaced workforce

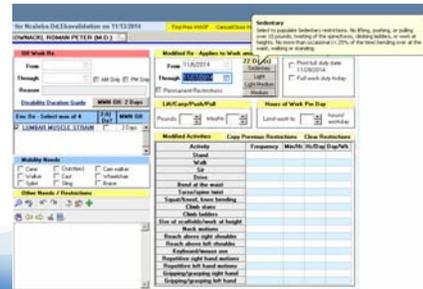
- Several studies on RTW in displaced workers
- Success related to
 - Early identification and engagement
 - Effective job activity simulation during phys rehab
 - Motivational interviewing (behavioral insights – J Parker)
 - Simultaneous job placement activity

Vermeulen, Participatory RTW intervention for temp agency workers and unemployed workers with musculoskeletal disorders – a RCT. J Occ Rehab, 2011.

Park, Esmail et al. Motivational interviewing for workers with MSDs: results of a RCT. J Occ Rehab, 2018.



Kaiser OTJ – imbed right decisions in EMR



2. RTW for a remote / distributed workforce

- Early supportive contact with worker
- Work accommodation
- Contact between healthcare provider and work
- Ergonomic work site visits
- RTW policies and RTW coordinator

How adapt these principles for distributed / remote workers?



3. RTW for those with chronic illness

- Co-manage work-related and non-occ conditions
- Try to avoid getting hung up in causality issues
 - Delays = worse outcomes
- Recognize and build on RTW motivation
- Policies and added insurance to mitigate consequences of HDHP



Workplace support, not med care, enables workers in poor health to stay at work

Pransky et al., JGIM, 2003

- Older (45-64) employees with poor health past 12 mos
 - MSD, CVD, cancer, sensory problems
- Essential factors that enabled them to stay on the job:
 - Changes to work stations, working times, work tasks
 - Personal coping; support from colleagues / supervisors
 - Largely informal / self-directed interventions




Research shows these may be especially important for older workers

- Early supportive contact with worker
- Work accommodation
- Contact between healthcare provider and workplace
- Ergonomic work site visits
- RTW policies and RTW coordinator



Workplace Self Management intervention

Shaw et al., Disabil Rehabil. 2012;34:694-703.

- Anger management
- Cognitive restructuring
- Attention techniques
- Effective communication
- Ergonomics/ body posture
- Gadgets, tools, devices
- Overcoming obstacles
- Pain diary
- Planning for pain flare-ups
- Problem-solving
- Sleep hygiene
- Stress management
- Stretching and exercise
- Time-based pacing
- Relaxation methods




Summary

- Many changes in work and workforce -- new challenges to preventing work disability, and some opportunities
- Basic RTW principles still make sense --if adapted to this new world of work



4. RTW for an aging workforce

NH Older Workers and Work Injury Study – detailed interviews of workers > age 55

3 distinct groups of older workers:

- Healthy survivors – still successfully working in first career for 40+ years
- Employed post-retirement (second career)
- “Trapped” (finances, health insurance, poor health) – want to retire but can’t

Each group – unique RTW challenges / opportunities = individualized approach (Allina Health)



Pransky et al, AJIM, 1999.



QUESTIONS??

