


Current Trends in Healthcare

A vibrant teal and white illustration featuring various healthcare symbols: a white pill bottle with an orange label, a blister pack of blue pills, a white pill, a white checkmark in a teal circle, a white speech bubble, a white tablet with a teal plus sign, and a white prescription slip with 'Rx' written on it.

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Current trends in Healthcare

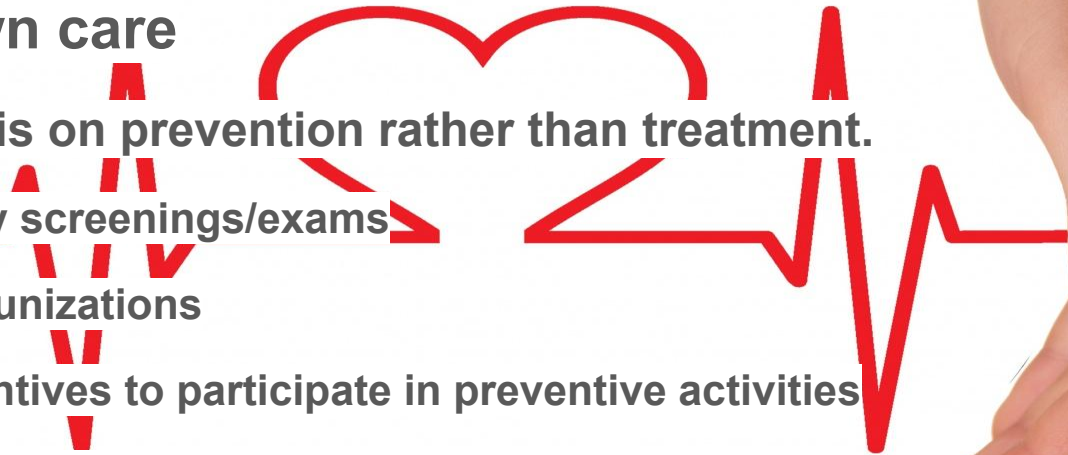
1. Patient focused care
 2. Cost containment
 3. Increased emphasis on use of genetics
 4. Telemedicine
 5. Machine learning and use of Artificial Intelligence (AI)
 6. Behavioral health epidemic
 7. Increased demand for skilled nurses and other healthcare workers
- 
- The background features a teal abstract shape with various medical icons: a white pill bottle with an orange band and a blue cap, a blister pack of blue pills, a white pill with a blue cross, a white pill with an orange band, a white smartphone with a blue screen and a white cross icon, and a white prescription slip with a blue 'Rx' symbol.

Patient focused care

- Patients are seen as consumers who have a choice
- Focused on increased patient satisfaction, patient engagement, valuing of patient time and self-involvement in their own care

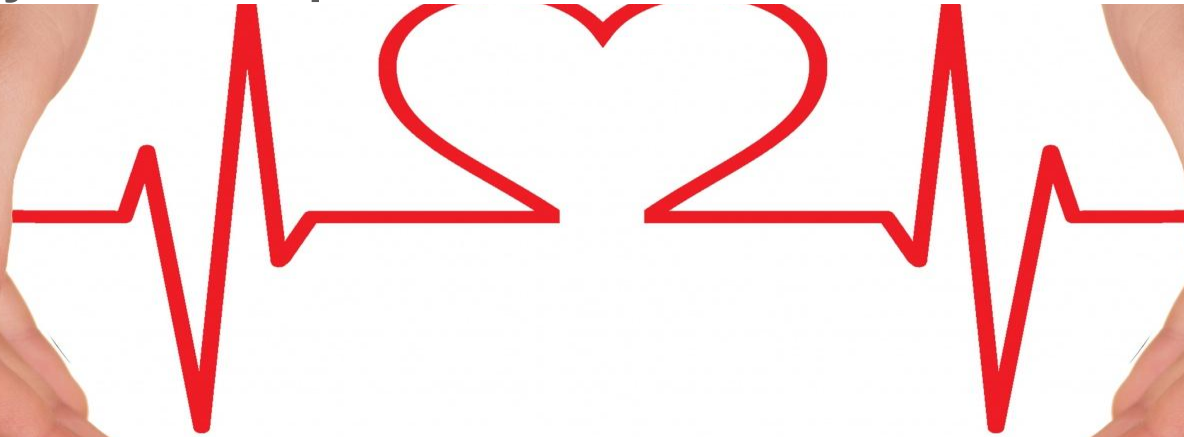
○ Emphasis on prevention rather than treatment.

- Early screenings/exams
- Immunizations
- Incentives to participate in preventive activities
- Easy access to preventive healthcare services



Patient focused care

- Personalized, patient driven engagement leads to better patient outcomes due to better compliance with treatment
- Not only increases patient satisfaction but saves healthcare dollars



Cost containment

What is it?

- A means of trying to control the ever rising cost of healthcare
- Achieving the maximum benefit for every dollar spent on healthcare--"do more with less"
- Healthcare consumes 18% of the US gross domestic product (consumer spending)--\$3.3 trillion dollars per year. 17% of that is on prescription drugs
- [Why is healthcare so expensive?](#)

Cost containment

What are ways we can save money in healthcare?

- Insurance companies use surveillance programs to track and connect drug spending with:

- clinical outcomes
- use of ineffective treatments
- use of brand name drugs over equally effective generic drugs
- use of unnecessary antibiotics
- then provide feedback to medical providers to better their treatment/prescribing practices.

*Money is saved because physicians are encouraged to prescribe medicines that provide the most effective treatment for the patient while being cost conscious

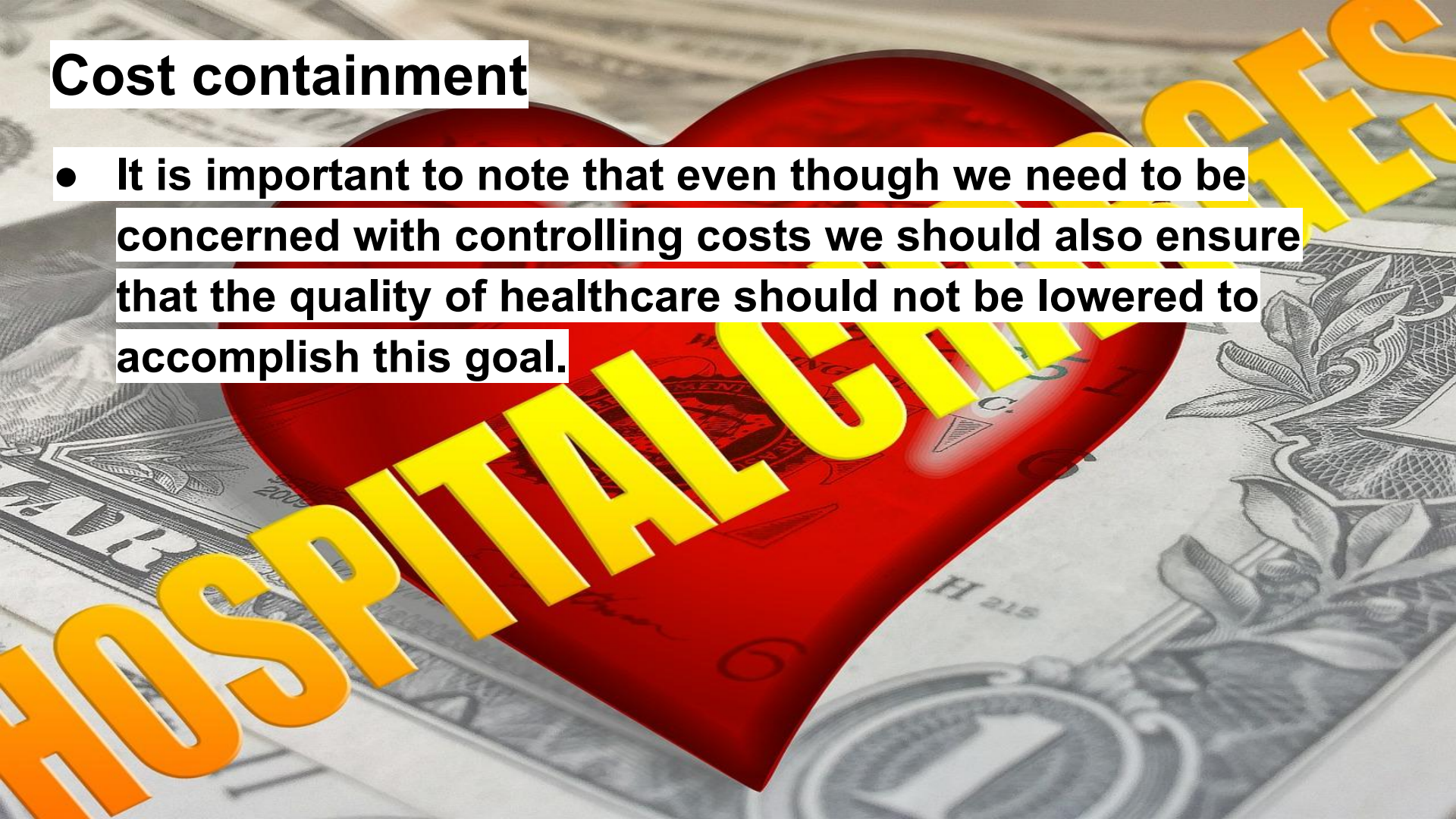
Cost containment

What are ways we can save money in healthcare?

- **Increased use of Outpatient care centers and services**
 - **Inpatient facilities are much more expensive than outpatient services**
 - **Money is saved because of earlier discharges, transfer to less expensive rehab centers and use of home health care**
 - **“Right care, right place, right time”**
 - **Patient understanding the benefit of timely treatment at specialized care center rather than defaulting to inpatient hospital.**
 - **Insurance companies provide education through incentives and to use outpatient care centers and authorization requirements to use inpatient care facilities.**

Cost containment

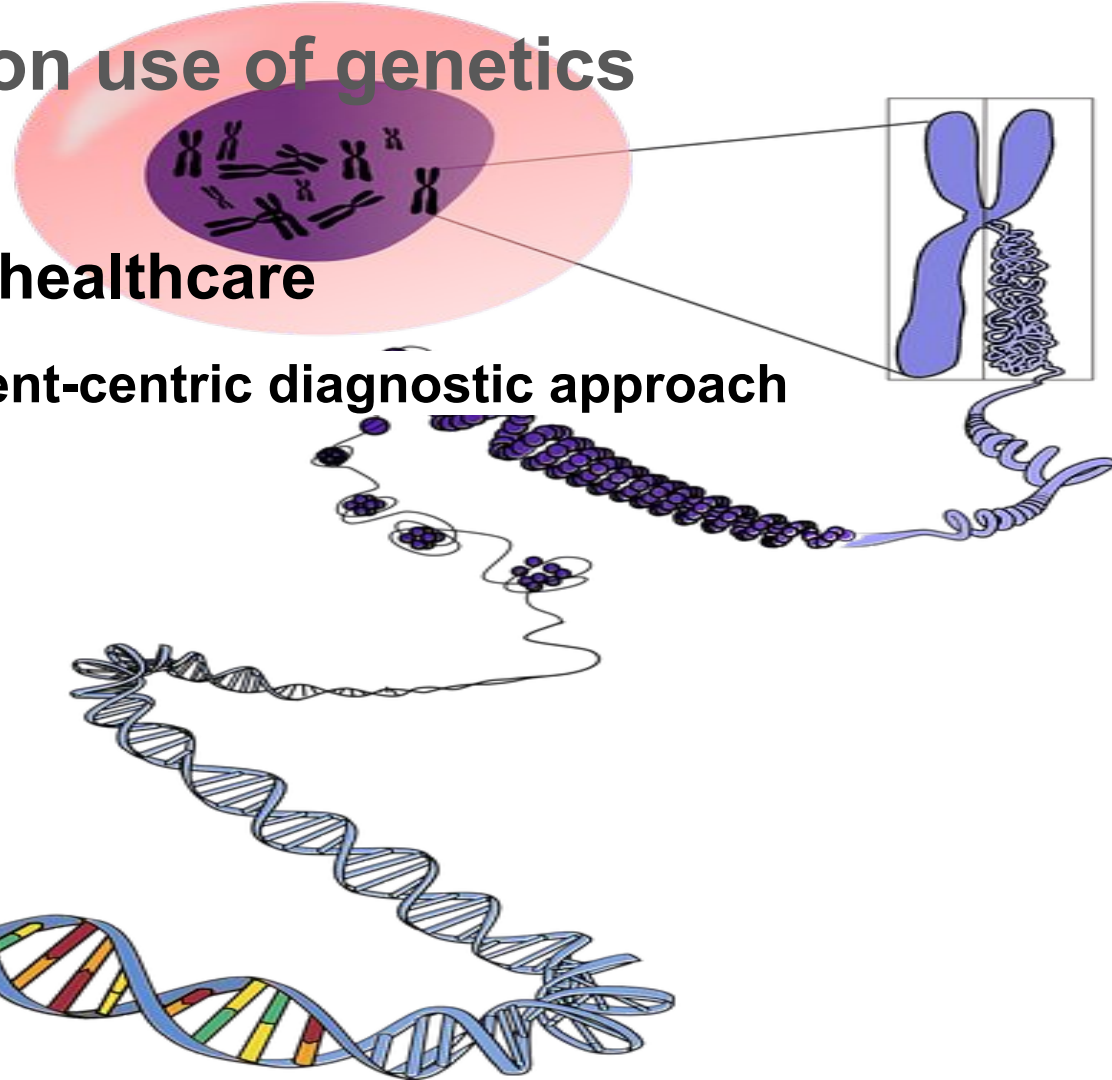
- It is important to note that even though we need to be concerned with controlling costs we should also ensure that the quality of healthcare should not be lowered to accomplish this goal.



Increased emphasis on use of genetics

Specific uses of this in healthcare

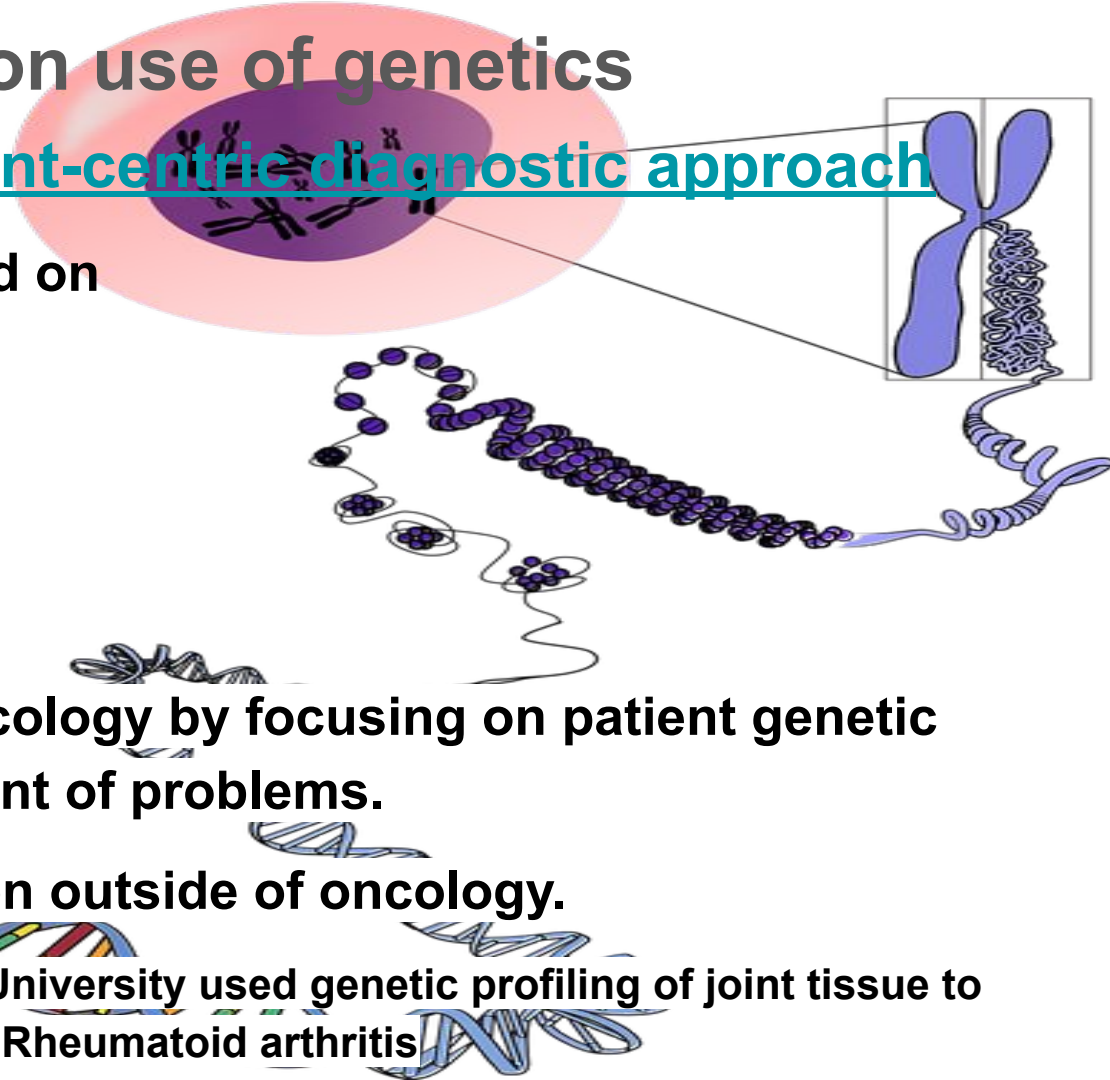
- Precision medicine/Patient-centric diagnostic approach
- Gene editing therapy
- Use of nanocarriers



Increased emphasis on use of genetics

Precision medicine/Patient-centric diagnostic approach

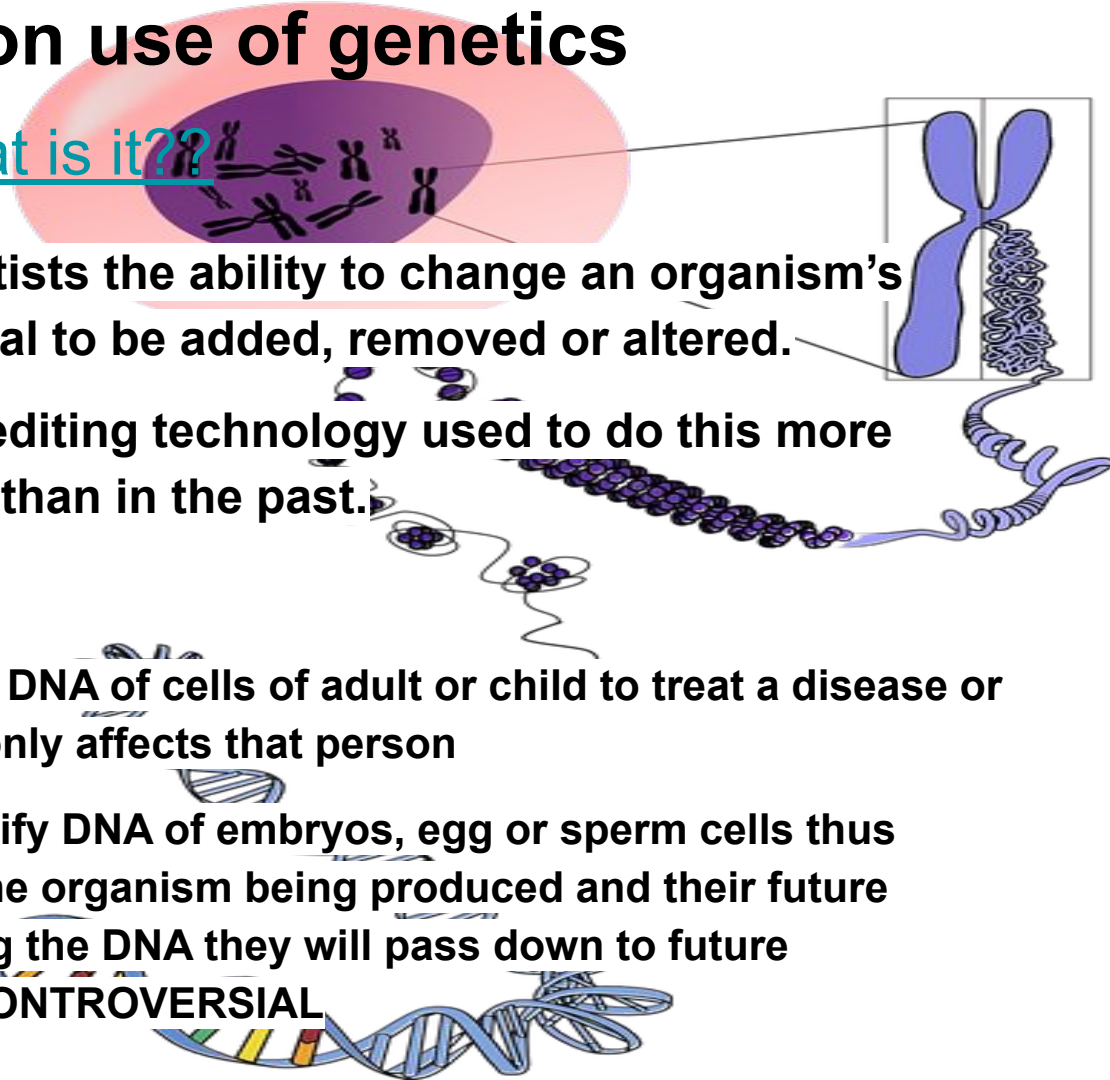
- **Treatment of patient based on**
 - Patient genetic makeup
 - Prior treatment history
 - Behavioral preference
 - Environmental conditions
- **Seen great success in oncology by focusing on patient genetic makeup for better treatment of problems.**
- **Will become more common outside of oncology.**
 - Ex. Study at Northwestern University used genetic profiling of joint tissue to pinpoint effective drugs for Rheumatoid arthritis



Increased emphasis on use of genetics

Gene editing therapy--what is it??

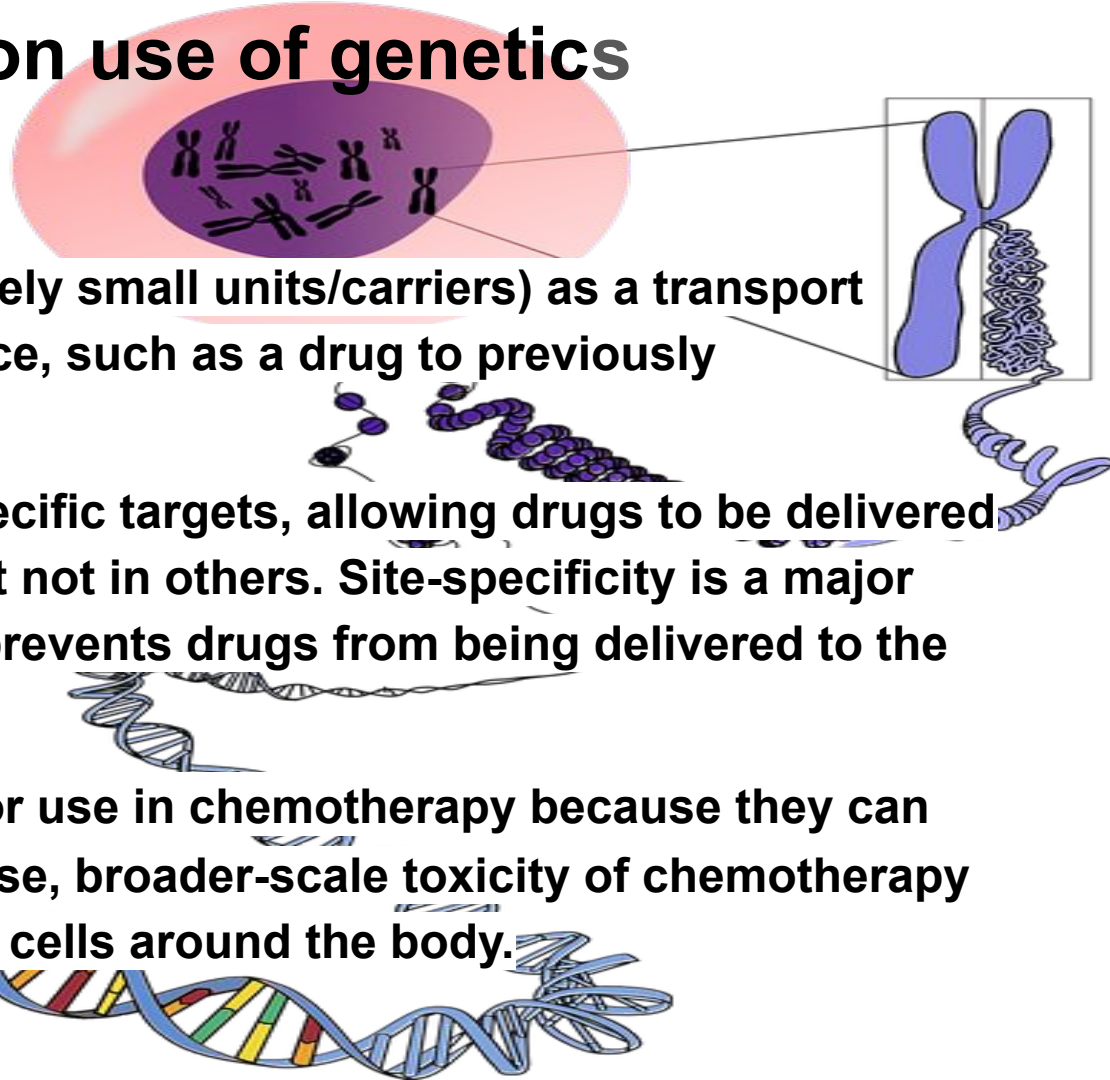
- Technology that gives scientists the ability to change an organism's DNA allowing genetic material to be added, removed or altered.
- CRISPR--one specific gene editing technology used to do this more precisely and inexpensively than in the past.
 - 2 primary uses
 - Gene therapy--change DNA of cells of adult or child to treat a disease or enhance the person--only affects that person
 - Germline editing--modify DNA of embryos, egg or sperm cells thus affecting the DNA of the organism being produced and their future generations by altering the DNA they will pass down to future generations--**MORE CONTROVERSIAL**



Increased emphasis on use of genetics

Use of Nanotechnology

- Use of nanomaterial (extremely small units/carriers) as a transport module for another substance, such as a drug to previously inaccessible body sites.
- Can deliver drugs to site-specific targets, allowing drugs to be delivered in certain organs or cells but not in others. Site-specificity is a major therapeutic benefit since it prevents drugs from being delivered to the wrong places.
- For ex. Show promise for use in chemotherapy because they can help decrease the adverse, broader-scale toxicity of chemotherapy on healthy, fast growing cells around the body.



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Telemedicine

- The remote diagnosis and treatment of patients by means of telecommunications technology.
 - It mixes teleconferencing, document-sharing and mobile technology in order to improve healthcare quality, largely for those who lack access to care.



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Telemedicine

- **What are specific examples of its' use?**

- **Video conferencing/appointments**
- **Transmission of still images ("second set of eyes"--store & forward--quicker diagnosis & treatment of conditions such as stroke)**
- **E-health (including patient portals)**
- **Remote monitoring of vital signs, rehabilitation programs**
- **Continuing medical education**
- **Consumer-focused wireless applications (education & management of chronic conditions or recovery from surgery)**
- **Nursing call centers**

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Telemedicine

- Ponder this...

- How do you think these methods of telemedicine are beneficial to the patient and healthcare in general?



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Telemedicine

- Answer...

- Telemedicine is beneficial to the patient and healthcare because it

- Increases access to providers and services
- Decreases healthcare costs
- Improves patient outcomes



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Machine learning/Use of Artificial Intelligence (AI)



- **Use of complex algorithms and software to predict and treat conditions.**
- **The primary goal of health-related AI applications is to analyze relationships between prevention or treatment techniques and patient outcomes.**
- **Use for data analysis and to augment clinicians and their time, not to replace them.**



Behavioral health epidemic

- 130 people die daily from opioid overdose
- 80% of heroin users report [misusing prescription opioids](#) before moving on to heroin
- This highlights not only an addiction epidemic but an overall behavioral health epidemic

Behavioral health epidemic

- **Need to get better at early identification and treatment of behavioral health issues before they become a persistent and larger problem for the patient**
- **Early identification and treatment of behavioral health issues such as**
 - **Eating disorders**
 - **Anxiety**
 - **Depression**
 - **Suicidal tendencies**



Behavioral health epidemic

- **Potential ways of providing better behavioral healthcare and dealing with our behavioral health epidemic**
 - **Mandated behavioral health screenings**
 - **Increased availability and accessibility of mental health services**
 - **Technology better designed to manage dosage of opioids**
 - **Search for opioid alternatives**

Increased demand for skilled nurses and healthcare workers

- Employment of registered nurses is projected to grow 16% from 2014 to 2024, much faster than the average for all occupations, according to the Bureau of Labor Statistics.
- The US will need to hire 2.3 million new health care workers by 2025 in order to adequately take care of its aging population, a new report finds.
- Demand is high for other healthcare workers as well:
 - Nurse aides
 - Doctors
 - Lab technicians

Increased demand for skilled nurses and healthcare workers

- Why are nurses and other skilled healthcare workers in even more demand than ever?
 - Growth in the geriatric (elderly) population
 - People are living longer and have more health problems as they age
 - This increases the demand for care of chronic conditions and facilities such as:
 - Adult day care centers
 - Retirement communities
 - Assisted and independent living facilities
 - Long-Term Care facilities

Increased demand for skilled nurses and healthcare workers

THANK YOU

- **Why are nurses and other skilled healthcare workers in even more demand than ever?**
 - **Affordable Care Act opening the doors of healthcare to thousands of new patients**
 - **More patients accessing services increases the demand on facilities and healthcare workers to provide care**
 - **Older healthcare workers retiring out of the profession and not enough new graduates to replace them**

Increased demand for skilled nurses and healthcare workers

THANK YOU

- **How do we meet this increased demand to ensure quality patient care?**
 - **Increased availability of health education programs**
 - **Invest in training more healthcare workers who can provide preventative care--more generalists.**
 - **Scholarships and expanded nurse practitioner roles**
 - **Accelerated Training**
 - **Upskilling/cross-training**
 - **National rather than state licensing to increase mobility**