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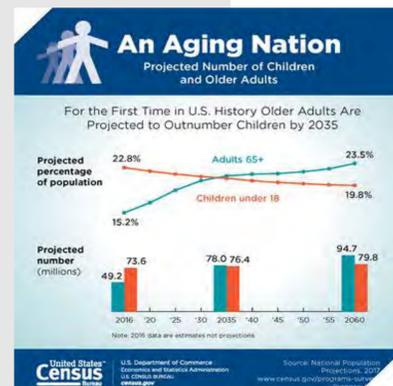
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**Goal:** Investigate the ethical and social implications of developing a DMT for LOAD, including the impact it will have on future AD patients, researchers, clinicians, and the U.S. healthcare system

## Why is Alzheimer's Disease (AD) unique?

The aging U.S. population is making AD an increasingly common problem

- Currently 5.8 million individuals in the US with AD
- Estimated 13.8 million individuals by 2050



- By 2035, U.S. is expected to have more adults 65+ than children under 18

[https://www.alz.org/media/Documents/alzheimer\\_s-facts-and-figures-2019-r.pdf](https://www.alz.org/media/Documents/alzheimer_s-facts-and-figures-2019-r.pdf)

## Challenges with a successful DMT for AD

1. Size of AD population & lack of infrastructure
2. Diagnosis and stratification of patients into clinical trials
3. Expenses and alternative payment models

### Lack of infrastructure

- Current healthcare system lacks appropriate diagnostic infrastructure for large patient pop.
- Limited supply of specialists + physicians



- The demand for geriatricians is already greater than supply
- Need an estimated 25,000 full time geriatricians in clinical practice by 2050 to meet demand

### Diagnosis and stratification

Methods of AD diagnosis (ex. biomarkers, PET scans, and cerebrospinal fluid) are inaccurate:

- Low sensitivity to pre-symptomatic patients
- Older age of patients complicate the diagnosis

## Expenses and alternative payment models

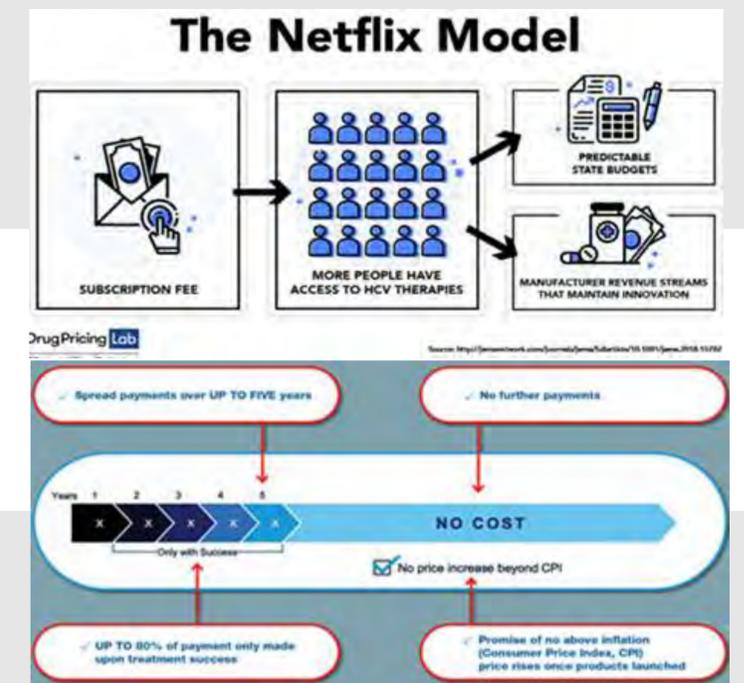
Lifetime healthcare cost of a patient with AD is \$350,174 (calculated for a patient with the average age of 83)

How do we pay for an expensive DMT?

### Netflix model

Similar to a monthly subscription plan with a flat fee and unlimited access to the drug

Ex. Louisiana and Hepatitis C for \$58 million/year



### Sequential Payment Model

Patients (or more likely insurers) pay a one time, non-negotiable sum up front; remaining cost is split into annual payments

Ex. Bluebird Bio and \$1.8 million Beta Thalassemia

**Conclusion:** We must begin to address challenges for an AD DMT now in order to re-imagine the current system for better delivery in the future