



Cardiac Rehabilitation Provides Significant Benefits to Patients with Heart Failure



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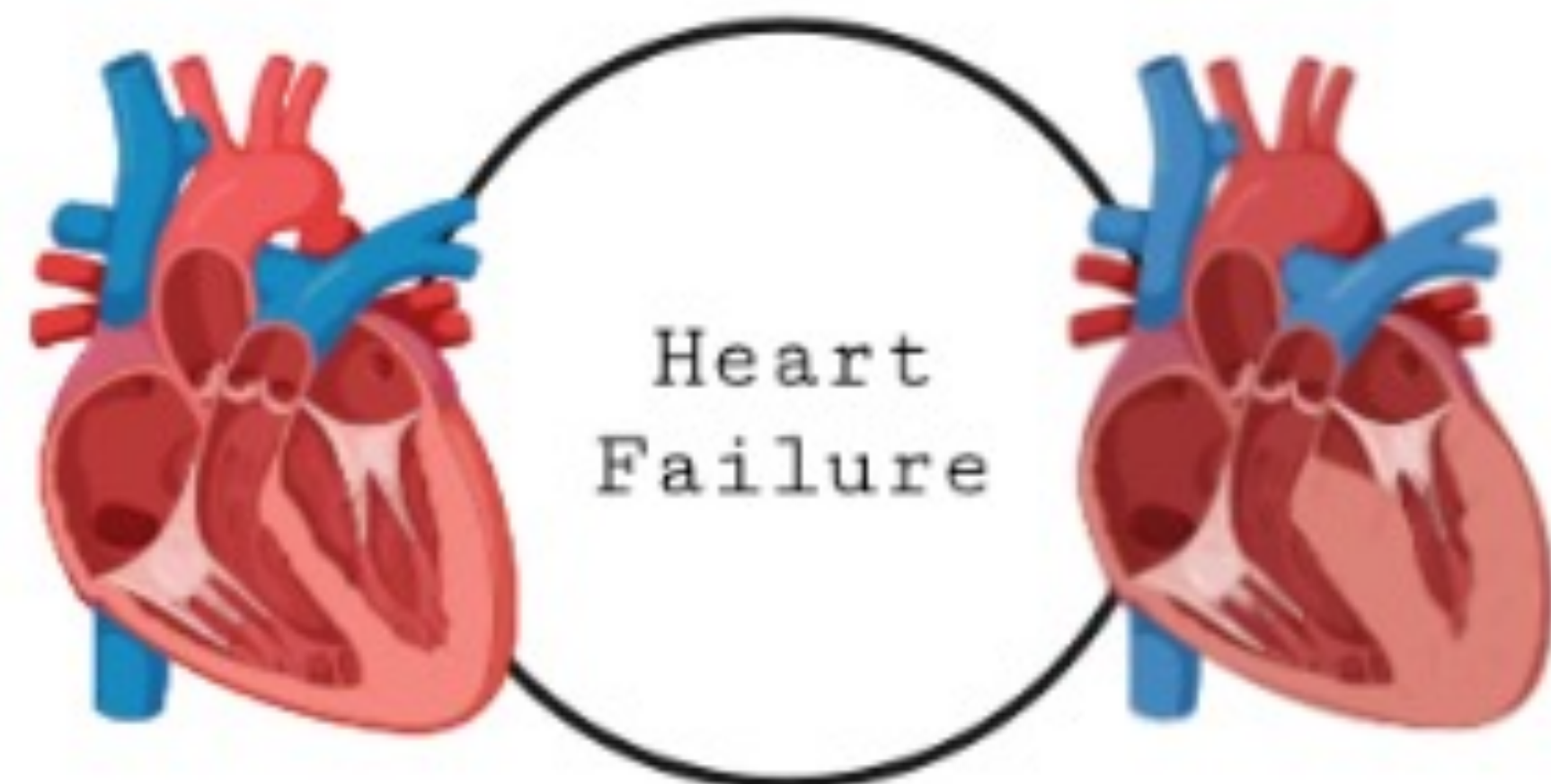


Figure 1: Heart failure is caused by hypertension, coronary heart disease, valve abnormalities or other cardiac injuries. HF leads to the heart being unable to pump enough blood to meet the body's needs.

Exercise Benefits

- Due to the benefits of physical activity, there has been a Cardiac Rehabilitation (CR) secondary prevention programs are now available (patients currently suffering from HF).
- This program combines supervised physical exercise with comprehensive disease-related self-care counseling including nutritional, psychological, and smoking counseling, and can be broken down into three steps.
- CR has significant benefits in decreasing mortality in HF patients by strengthening cardiac structure and function.

Results and Conclusion

- Heart failure is a disease that affects a large proportion of the population worldwide and is brought on either gradually or rapidly due to underlying cardiac diseases.
- It has devastating effects on the heart physiology by attacking and wearing it down, creating structural and functional cardiac abnormalities which result in systematic congestion.
 - This is very concerning as patients end up hospitalized and/or die due to the severity of their symptoms.
- It has been shown that exercise can induce cardiac regeneration which is crucial for heart failure patients' survival.
- A cardiac rehabilitation program has been made in order focus and maximize these benefits for HF patients.

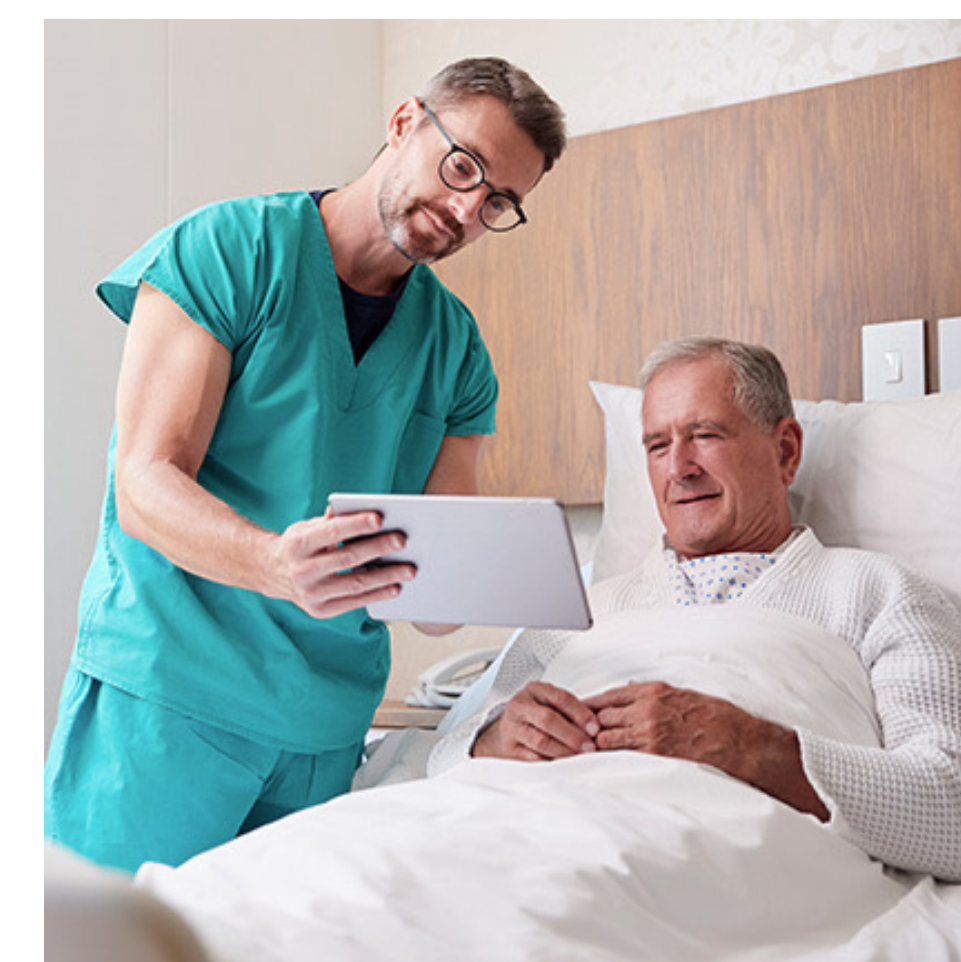
Background

- Heart failure (HF) affects roughly 1-2% of the population worldwide.
- The main causes for death are organ dysfunction or sudden cardiac arrest.
- Exercise can be used as a method of heart regeneration to maintain proper cardiac function.
- Training is important for patients as it can strengthen their systolic function and can cause ventricular remodeling, leading to an increase in O₂ throughout the body.

Cardiac Rehabilitation Program

Phase 1

Assessing the patient's physical capacity and willingness to endure therapy during hospitalization. Therapists and nurses may begin by leading patients through easy exercises while they are lying in bed or at their bedside.



Phase 2

consists of outpatient supervised physical activity during the 4 months after being discharged, where they undergo 36 sessions in an exercise program. supervised exercise is done by personnel with the necessary skills who ensures its effectiveness and safety.



Phase 3

Patients will perform unmonitored exercises but are still provided with self-care counseling.



Future Directions

- Cardiac rehabilitation is lacking the proper education needed to make this program a true success.
- As of now one of the biggest challenges this program faces are being underutilized due to doctors preferably prescribing medications that are only short-term solutions.
- All physicians that deal with patients suffering from cardiac injury must get better educated on the uses and advantages of CR if they are to assist in overcoming insufficient physician endorsement.
- Better training that incorporates CR into the training programs for medical residents and fellows through didactics or direct contact with CR facilities.

HF Patients That Need CR

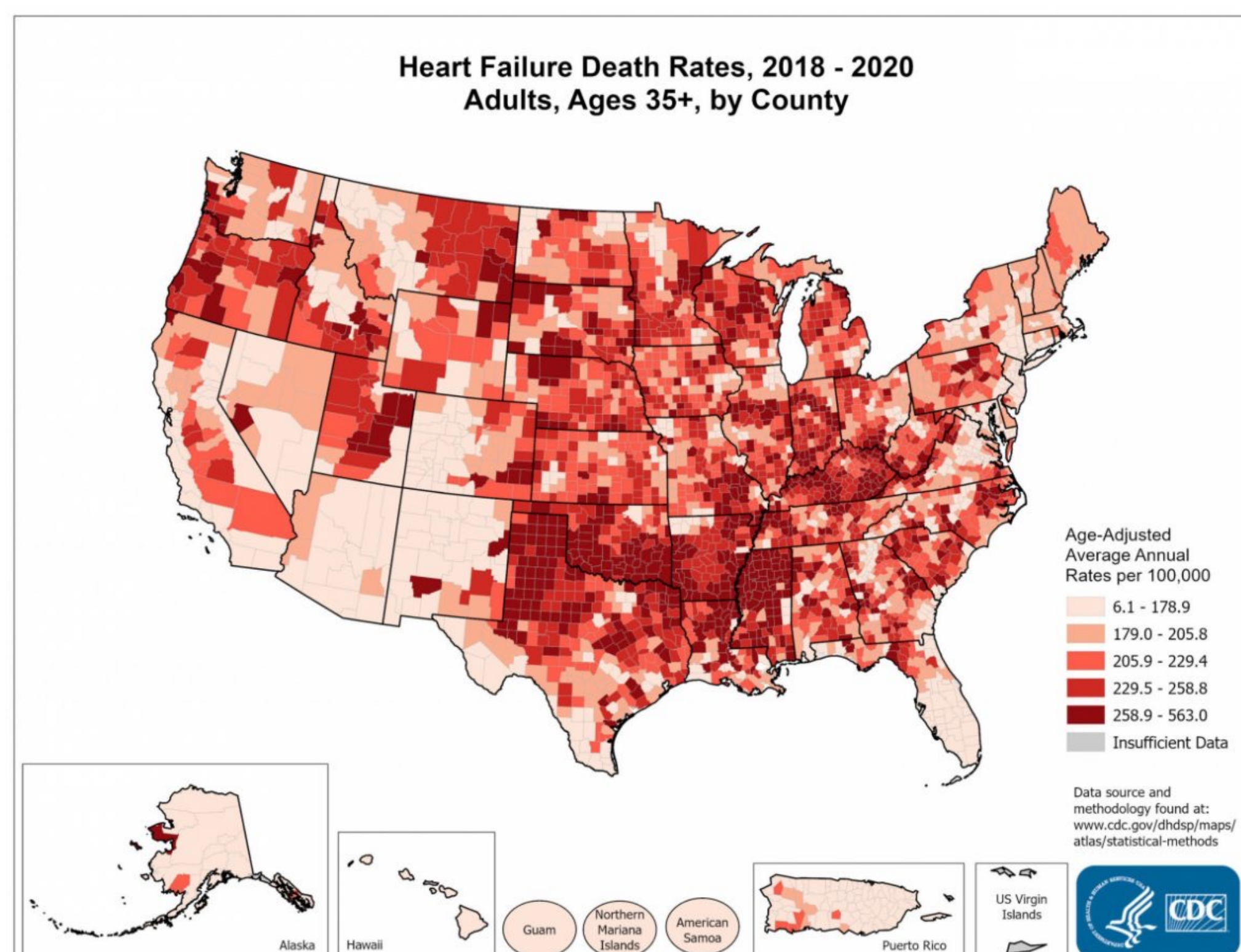
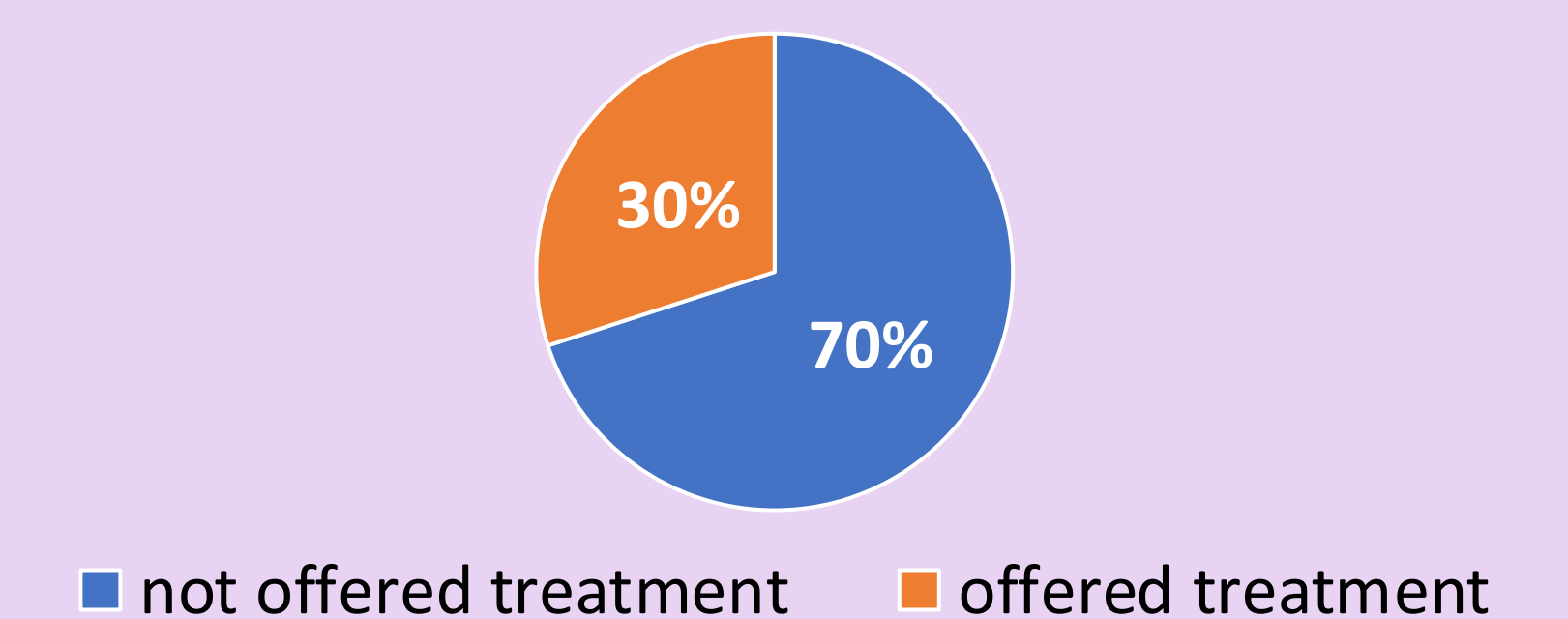


Figure 2: shows that concentrations of counties with the highest heart disease death rates.

References

