

UNDERUTILIZATION OF CARDIAC REHABILITATION AMONG RURAL HEART FAILURE PATIENTS – A PILOT STUDY

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145th Annual Meeting of the American Public Health Association Conference, Atlanta GA

Introduction

In 2014, the Centers for Medicare and Medicaid Services (CMS) approved systolic heart failure (HF) as a covered diagnosis for outpatient cardiac rehabilitation (CR). However, HF patients are referred to CR at low rates, even compared to the already low referral rates of other diagnoses or procedures. An additional complexity is that of rural HF patients – distance to programs tend to deter patients from attending.

Purpose

The purpose of the study was to demonstrate the complexity of CR in the management of rural HF patients.

Methods

A purposeful sample of hospitalized rural HF patients was selected for participation. The sample was required to be purposeful in order to meet CMS guidelines for participation in CR:

- Stable HF
- Ejection Fraction \leq 35%
- New York Heart Association class II – IV symptoms, despite optimal HF therapy for at least 6 weeks

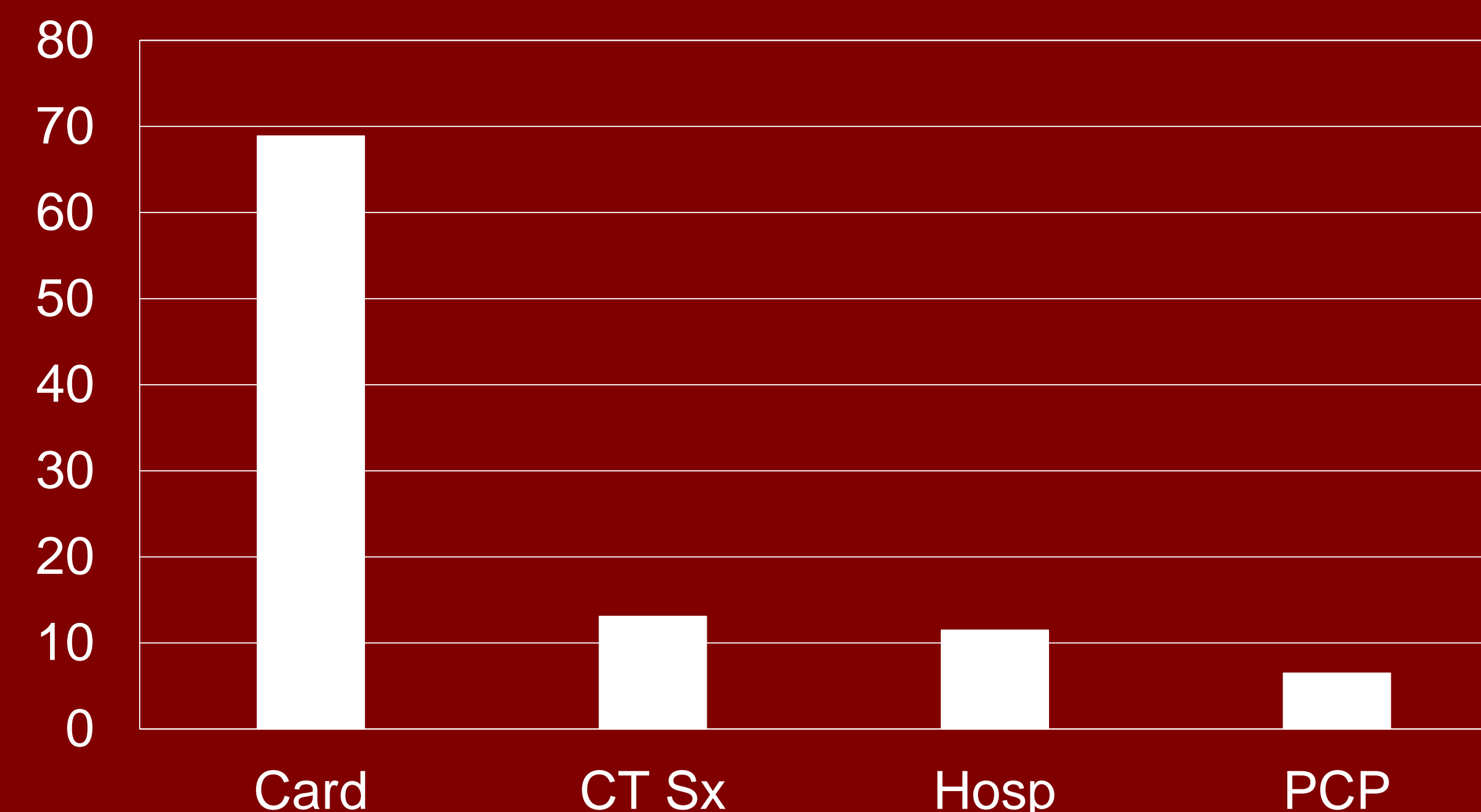
Measures

- 5 – Item Demographic Instrument
 - Completed by participant
- 10 – Item Clinical Demographic Instrument
 - Completed by researcher

Results

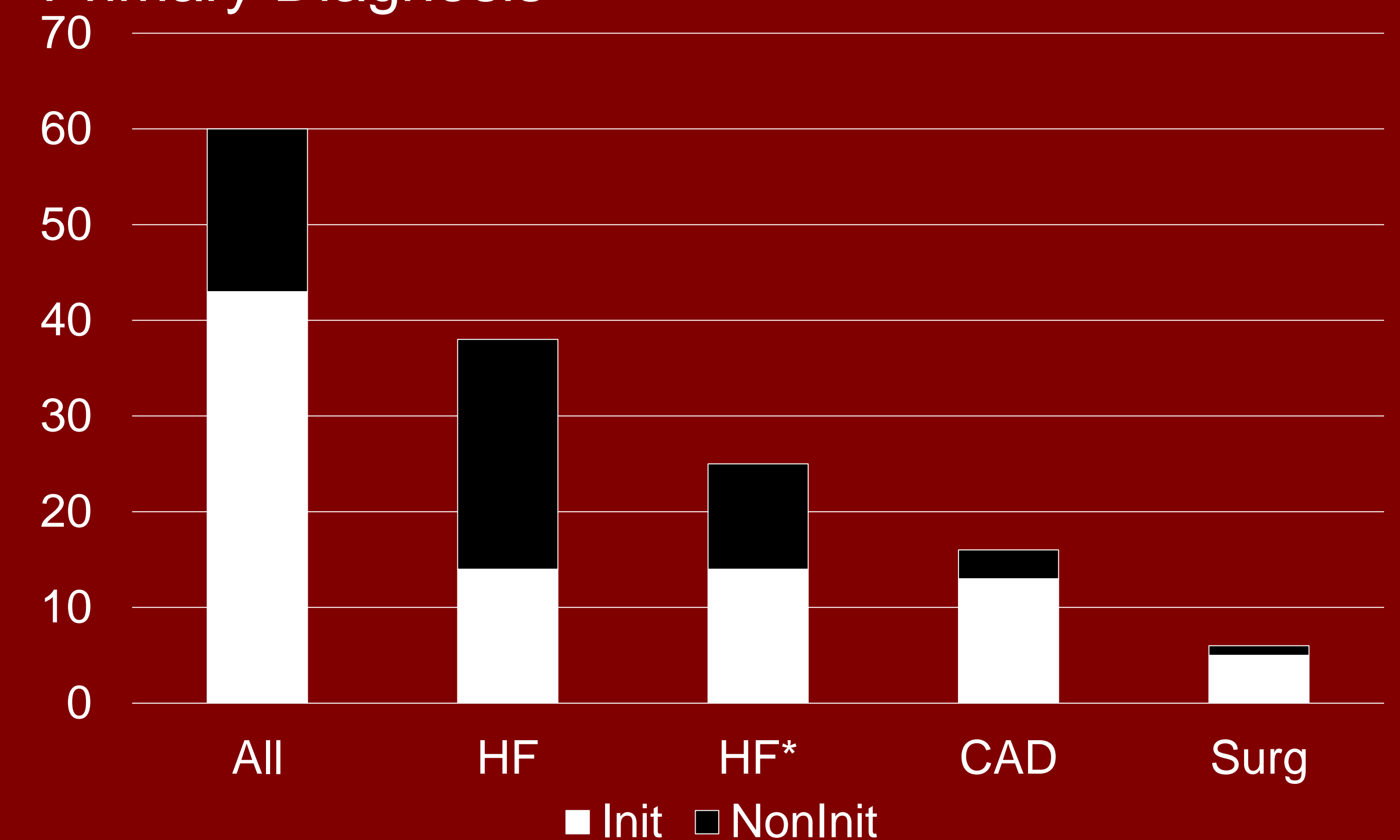
- Demographic Results:
 - 51.6% had a household income of less than \$30,000
 - 81.6% had a high school diploma or less
 - 25% were illiterate
- Clinical Results
 - 100% of CR orders for HF were initiated by CR staff
 - See figure 1 for physician management
 - See figure 2 for CR initiation

Figure 1: In Patient Physician Management (%)



Note: Card=cardiologist; CT Sx=cardiothoracic Surgery; Hosp=hospitalist; PCP=primary care physician.

Figure 2: Participant Referral and Initiation of CR by Primary Diagnosis



Note: HF=heart failure; HF*=heart failure with refusals excluded; CAD=coronary artery disease; Surg=heart surgery; Init=initiated; NonInit=non-initiated.

Conclusion

Historically, most CR orders came from cardiologists; however, unlike other diagnoses (e.g., myocardial infarction) and procedures (e.g., percutaneous coronary intervention), a cardiology consult wasn't always warranted. Further, referral to CR may come via other diagnoses, other than HF. Further studies should delve into why HF patients refuse CR, and the prevalence of illiteracy in HF populations. Finally, CR professionals need to be advocates for CR in HF patients. Exercise in HF management is in need of a paradigm shift.

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