

# Preventative Primary Care for Musculoskeletal Health

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## ABSTRACT

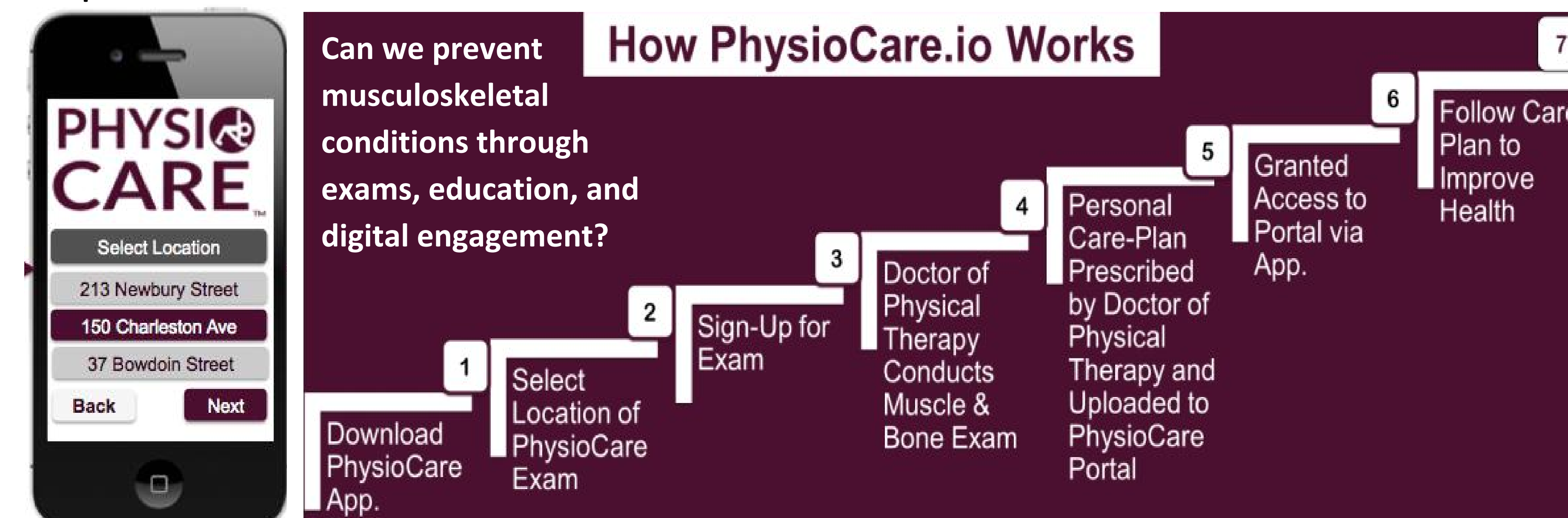
**Musculoskeletal Conditions (MC) affect more than 1.7 billion people worldwide.** MC is the second leading cause of disability, and among the aging population is the 4 disability. In 2012, **\$796.3 billion dollars was spent on musculoskeletal diseases** in the United States. Studies have shown that annual physical exams have not adequately assessed musculoskeletal health. Prolonged inactivity can lead to chronic conditions such as heart and vascular disease, osteoporosis, and sarcopenia. To combat this public health crisis, PhysioCare.io was developed to: 1. **Prevent musculoskeletal disorders by conducting an annual physiocare exam on muscles and bones for clients with and without musculoskeletal conditions** 2. Leverage the Internet of Things (IoT) to ensure clients adhere to their “prescriptive” workout plan, and 3. Educate the world on the importance of primary care for their muscles and bones.

## OBJECTIVE

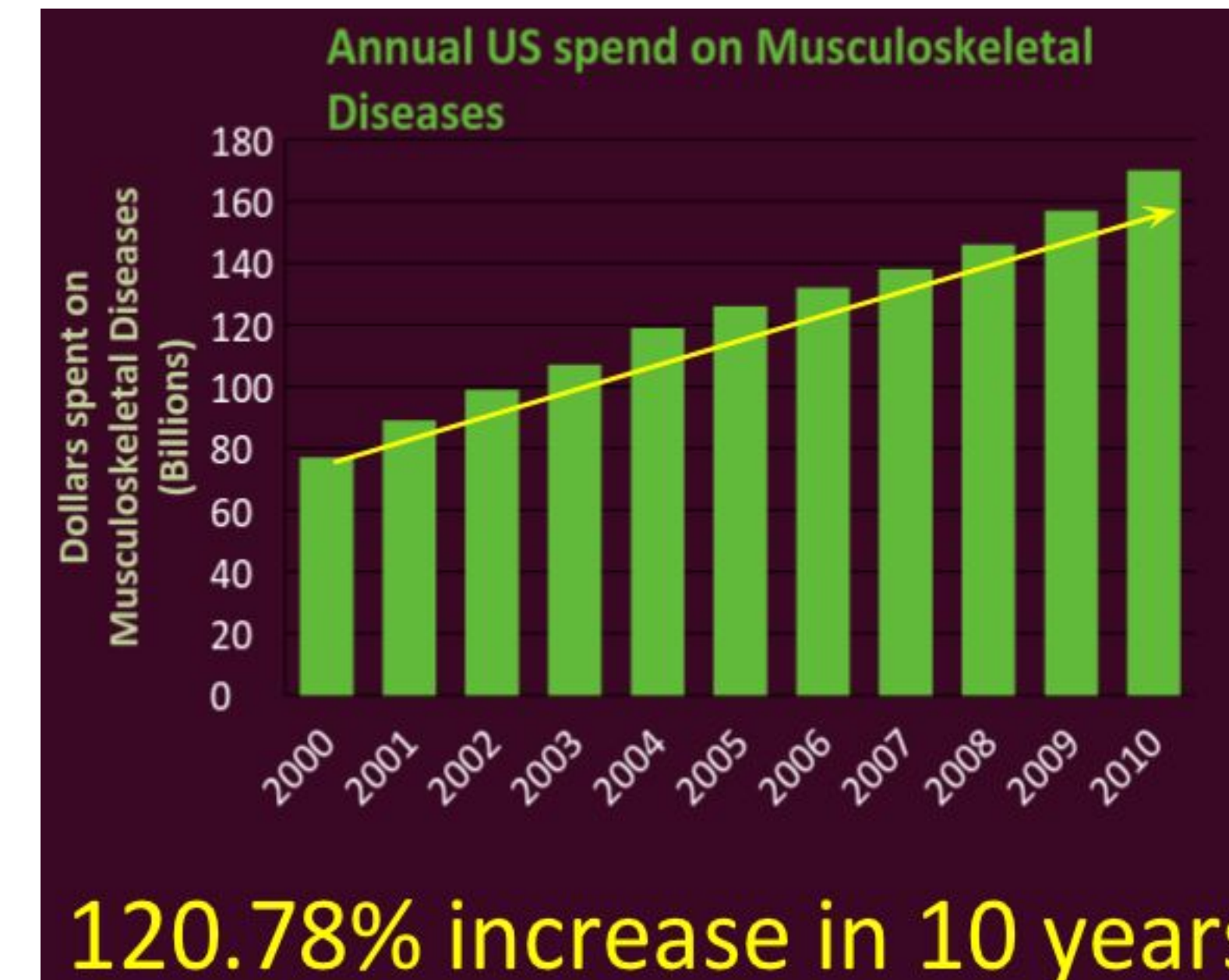
**(1) Determine if the target population (25-50yrs) will adopt the primary musculoskeletal exam as a form of preventative care.** (2) Determine if a causal relationship is present between the prescribed interventions and a decrease in participants' musculoskeletal impairments.

## METHODS

PhysioCare.io will target participants (male and female) ages 25-50 with differing activity levels. A Doctor of Physical Therapy (DPT) will conduct a 30 minute face -to- face examination that will assess: posture, muscular imbalances, gait abnormalities, motor control, range of motion, balance, and psychological motivation. Upon completion of the exam, DPT's will develop an individualized care plan including a training program, ergonomic assessment, and recommended referrals to specialists for the patient. Based on the results from this exam, the DPT will prescribe periodic follow-up exams, connect the patient with a personal trainer, or refer the patient to a specialized PT, PCP, or Chiropractor. **Clients will be able to use PhysioCare.io iOS and web- application to schedule exams and view their individualized care plan.**



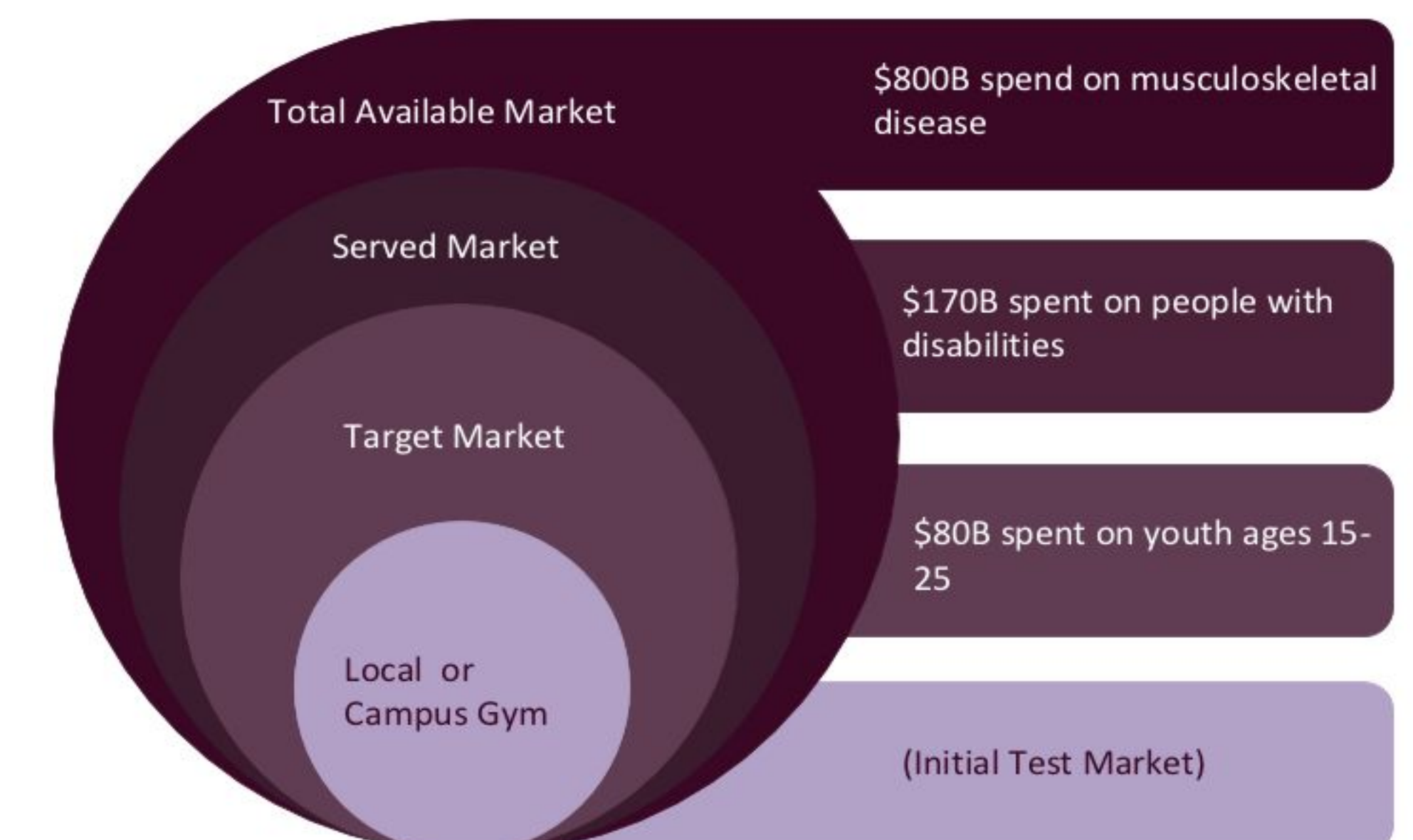
## RESULTS



The proposed pilot study of the Physiocare.io exam is currently in the preliminary stages. However, the market research and initial pilot data collection concluded that the general population would be interested in the Physiocare.io service. Of the 40 surveys completed, **65% said they have never used a similar service; 80% responded that would get an exam for their muscles and bones;** 75% said that they would be willing to purchase the service between \$100-200 dollars; 85% of respondents said they have “slightly often” or “never” seen a service similar to PhysioCare.io. 20 qualitative interviews were conducted in which the general consensus of the service was overwhelmingly positive.

## CONCLUSIONS

PhysioCare.io is scheduled to begin exam pilot testing in October 2015. Findings from this pilot test will provide sufficient data to determine the effect of the PhysioCare.io exam on patients' musculoskeletal health & knowledge of maintaining musculoskeletal health. Based on the initial pilot data collection, it is apparent that the general public is interested in this service. **Primary care professionals, specifically DPTs, PCPs, and Orthopedic Surgeons, believe PhysioCare.io can decrease future spend on musculoskeletal conditions through education and digital engagement.**



## REFERENCES

1. [Global Health Risks: Mortality and Burden of Disease Attributable to Selected Major Risks](#). WHO. 2012
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3. [Effectiveness of Physical Therapists Serving as Primary Care Musculoskeletal Providers as Compared to Family Practice Providers in a Deployed Combat Location](#). *Military Medicine*. October 2013
4. [The Burden of Musculoskeletal Diseases in the United States](#): The Bone and Joint Initiative USA. 2013-2015