

## RATIONALE/ NEED

We know from data gathered by the Association of American Medical Colleges (AAMC) that the parental median income and level of education of medical matriculates is overwhelmingly from the upper echelon.

- 50% or more of students entering medical school in the United States have been from the top quintile (families in the top fifth by income)
- More than 75% of medical students come from families in the top two quintiles of family income
- In contrast, patients who often present to academic teaching facilities are often from lower socioeconomic backgrounds

Sociologists have used games or simulations to stimulate critical thinking and to introduce social stratification.

These sort of simulation games may help learners understand previously misunderstood attitudes and behaviors of those on opposite sides of the socioeconomic continuum.

The board game *Monopoly* (licensed by Parker Brothers in 1935), is modified and used to:

- increase understanding of the concepts of poverty and privilege
- to challenge learners to consider how socioeconomic resources can impact health and healthcare behaviors.

## METHODS/DESCRIPTION

### Pre-game Preparation:

Several regular *Monopoly* games are obtained and the following modifications are made:

- Additional money is created to support more realistic incomes
- The cost of the property cards is changed to reflect more reasonable prices
- *Community Chest* and *Chance* cards are replaced with *Life of Luxury* and *what am I Going to Do?* cards
- The *GO* square becomes the *Income Tax* square with varying pre-selected amounts collected by each player each time the player passes this square
- Family size and income cards are created (these can vary for each small group)

Prior to the game, small group facilitators who serve as the "banker" are trained.

A *Life of Luxury Vacation* table is prepared with snacks, drinks, and small prizes. Participants can also get their picture taken with fun hats, hula skirts and the like to capture their fun!

### [BOX] Supplies:

- Several small tables for groups
- One large table
- Monopoly games (enough for a maximum 8 layers per set)
- Additional counterfeit money
- Additional cards (index cards)
- Snack food, drinks, small inexpensive prizes, camera (optional)
- Video camera (optional)

### Game Time

Group of 4 to 8 players are randomly assigned a family size and income (varies).

Players follow the original rules of *Monopoly* unless usurped by the new rules.

They play for at least 60 minutes. (90 min. is preferred)

### New Rules:

- Stratified income is received each time the player or couple "passes GO".
- Players in the lowest income for each small group may make attempts to assemble to create strategies to pool resources and create their own "new rules"; however, all low income members must participate in these "sidebar" gatherings and risk losing a turn if not present at their table.
- *What am I Going to Do?* cards depict challenging health issues and financial challenges typically in today's society.
- Only players or couples with a certain income level can visit the *Life of Luxury Vacation* table.
- Players have opportunity to provide charitable donation or a loans to other players

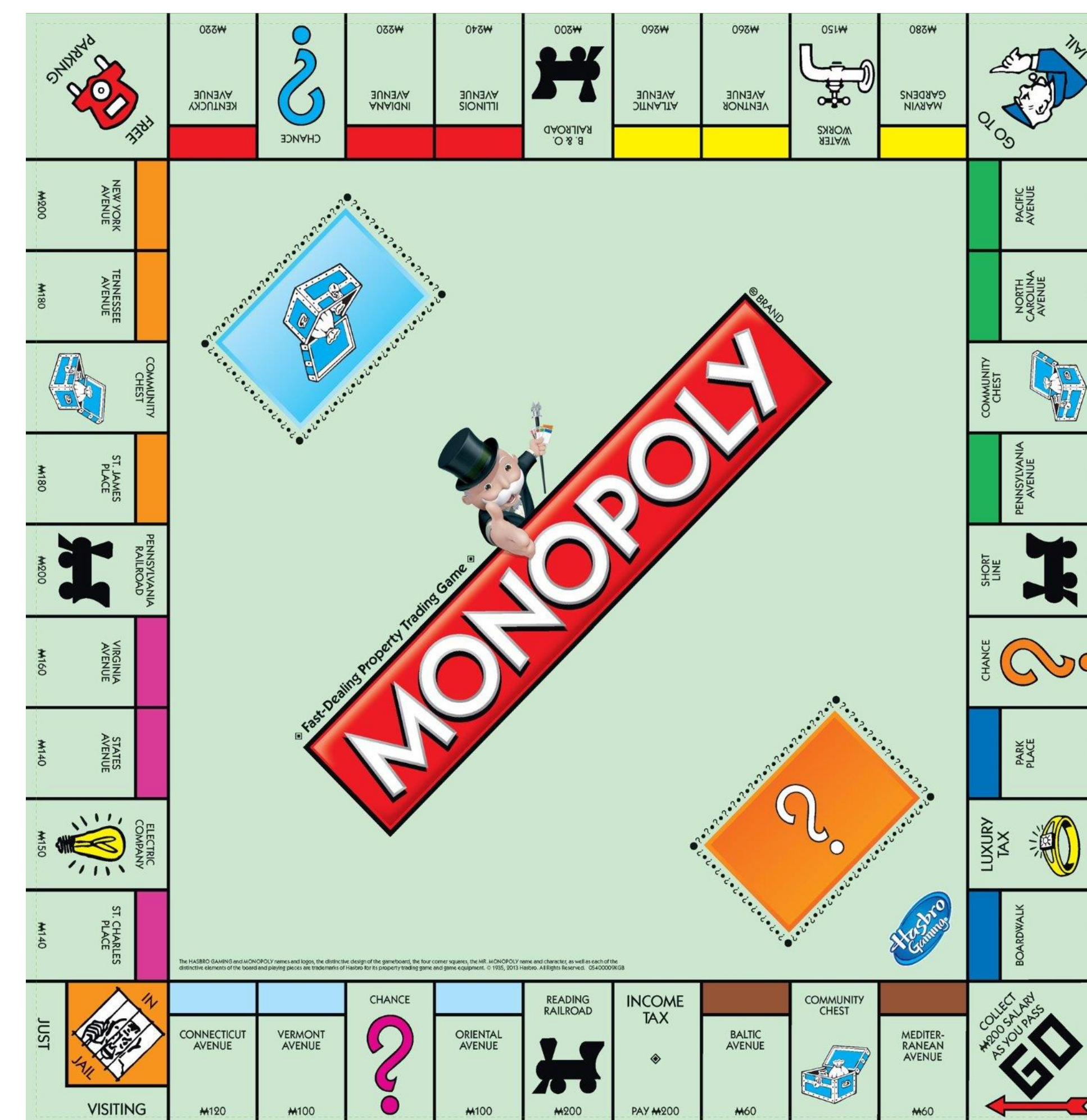
### Post-Game

The game ends at the pre-determined time and each group identifies its winner according to cash and property value

The facilitator (banker) provides a de-brief with the small group first or the groups can immediately join together for a large group discussion led by the teacher.

All participants report out what behaviors they observed in their small groups. Narrative reflection writing exercise is optional.

## RESULTS



We have shown that stratified *Monopoly* can be successfully used to highlight the financial and healthcare challenges faced by typical patients who present for care in teaching facilities. All participants have an opportunity to recognize how inequality impacts health and healthcare behaviors by playing a popular game which has been re-designed to teach these lessons in a simulated environment. The lessons learned and the feelings which accompanied this learning experience are easily recalled 2 years later.

In a survey of participants who had participated in the activity 2 years previously (n=11):

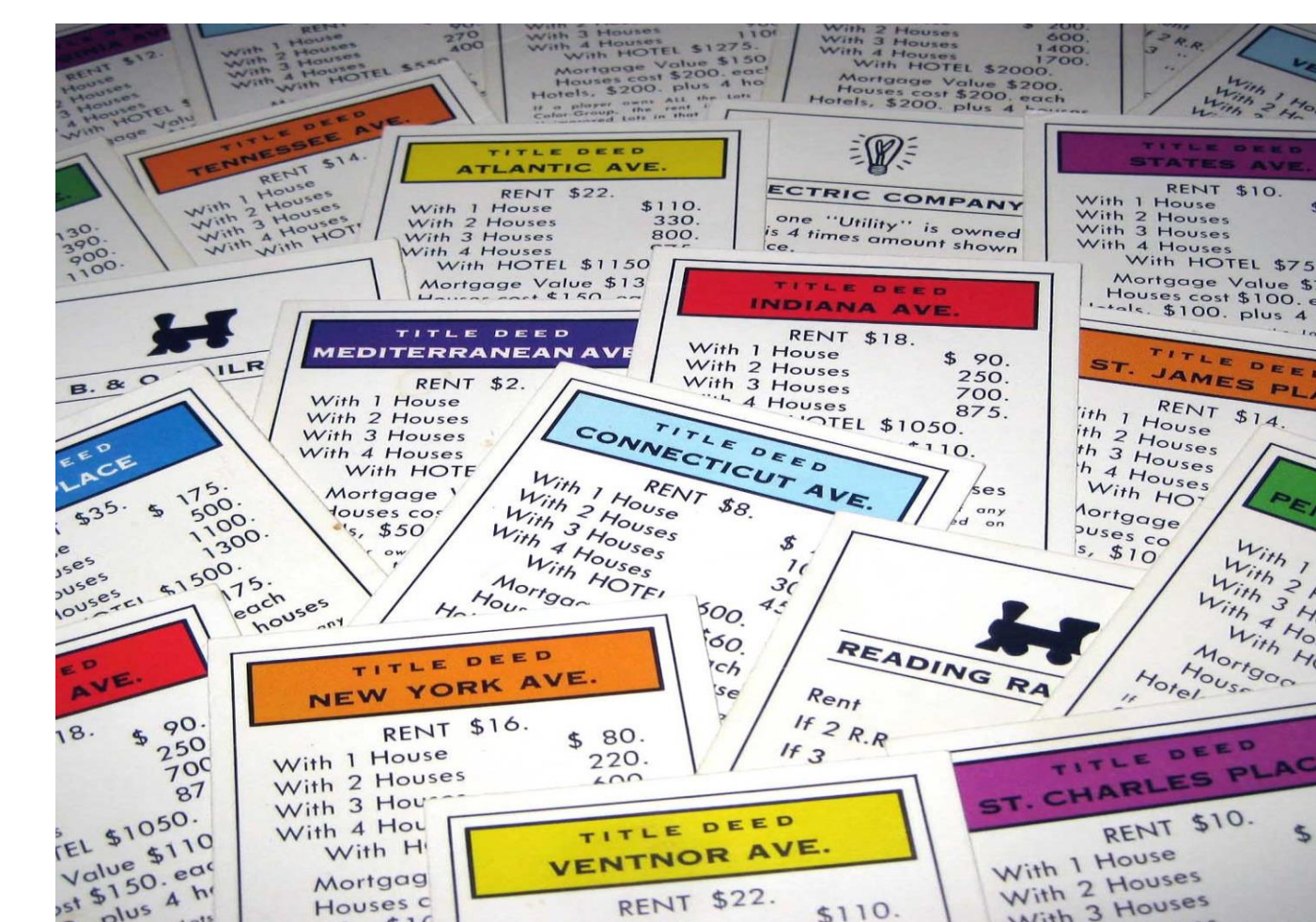
- 100% (n=11) recalled the simulation game and the key concepts learned
- 100% (n=11) "agreed" or "strongly agreed" that the simulation game reflected how socioeconomic inequality can impact health and healthcare decisions

### Self Reflection writing exercise comments:

*"Differences in socioeconomic backgrounds can lead to deeply ingrained stereotypes. We must be careful not to focus on stereotypes but consider the individual and the situation. This is especially true for the healthcare setting."*

*"Playing the Monopoly game with new rules was frustrating and unfair. I can only imagine what real life must be like for those in poverty. Eye-opening."*

*"The players with more money seemed to enjoy the game much more. They [the players with more money] could have been more charitable, but they chose to be selfish."*



## EVALUATION PLAN

### Survey results of participants in the simulation (n=25):

- 72% (n=18) evaluated the learning activity as an "enjoyable" or "very enjoyable" activity
- 92% (n=23) evaluated the learning activity as a "valuable" or "very valuable" activity

The next cycle of evaluation plan will compare:

- the socioeconomic status of the participant with the response of how much the activity was "enjoyed"
- the experience in clinical environment (patient care activities) of each participant and how much the activity was "valued"

Our hypothesis is that the "wealthier" participant will enjoy the activity more and the more clinically experienced participant will "value" the activity more.

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- 100% (n=11) "agreed" or "strongly agreed" that the simulation game reflected how socioeconomic inequality can impact health and healthcare decisions

The participants who most valued the activity were graduates of the training program who are now practicing medicine/ psychiatry in the community.

## IMPACT/LESSONS LEARNED

A challenge for medical education is teaching future physicians the fundamentals of professionalism and interpersonal communication. As residents physicians they will be expected to *respect patients and to communicate effectively with patients, families, and the public, as appropriate, across a broad range of socioeconomic and cultural backgrounds.*

Effective physicians of the future should *see beyond stereotypes and identify the social barriers* faced by their patients living in poverty and *communicate with vulnerable populations.*

This simulation exercise provides a **safe environment** for resident physicians who often come from very different, and frequently **more privileged socioeconomic backgrounds** (culture) from their patients, to **experience the frustration, helplessness, and anger often found in poverty** as well as the power, enjoyment, and sense of self-determination that can come with financial privilege.

### Benefits:

- Experiential and interactive/ learners enjoy playing a game
- Follows general didactic instruction related to poverty and health disparities
- Fits in a 90 min.- 2-hour block of time
- Learners tend to retain the experience longer than traditional methods of teaching.

### Limitations:

- Time required to prepare the game (the pre-game set up) as well as the time to play and debrief
- Small group facilitators must receive some training before the game
- Using a modified simple game to teach a complex phenomenon can misrepresent and minimize struggles experienced in reality
- Continuing discussion about poverty in healthcare must continue outside the boundaries of a simulation game

## ACKNOWLEDGEMENTS

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Monopoly. Licensed by Parker Brothers (parent company Hasbro)