What’s Wrong With Recess? Fact vs. Fiction
Eve Kutchman, Peter Anthamatten, Lois Brink
University of Colorado, Denver

Background
The rise in obesity has become an important public health risk among children. Recess in elementary schools has emerged as a potential tool for increasing physical activity (PA) to address this risk. Much research is being done on using traditional curriculum and structure as an additive to enhance recess. At first glance, this might seem like an easy opportunity for increasing PA levels. But a deeper look into the issue through the lens of school administration and in context of the entire school day might show otherwise. Many demands are being placed upon the entire school environment. Are the resources needed to use recess for increasing PA in children best utilized at this time or would they be better spent elsewhere?

Objective
The Intervention of Physical Activity in Youth (IPLAY) study focuses on environmental (playground renovations) and curriculum interventions for elementary school children during the recess period. While this study is currently in its fifth and final year (outcome data pending), a process evaluation was completed to evaluate the degree and effectiveness of the curriculum changes. It is through this process evaluation that questions were raised on the feasibility of schools taking on this responsibility and if the resources needed to make these changes would be best used at recess or elsewhere throughout the school day.

Methods
As part of the larger IPLAY study, (serving 24 schools in Metro Denver), 12 schools were randomly selected to receive a curriculum intervention during recess as part of the study. Six of these schools had a recently renovated playground and six did not. Schools were matched according to size, ethnicity, and percentage of students receiving free or reduced lunch. Permission was granted through the school district and the principals for participation in the study. The research staff was responsible for implementation, administration and equipment with minimal assistance needed from the school. Trained graduate research assistants (employed by the university) implemented the curriculum for eight weeks during the fall and spring semesters of 2010-2013. A 15-point checklist utilized a session tracker, instructor lesson plans and playground feature analysis to track the quality of implementation. Larger study methods (SOPLAY observations, accelerometry, surveys, GIS analysis) are being used for the outcome measures and will be published at a later date.

Results

<table>
<thead>
<tr>
<th>Process Evaluation</th>
<th>Session Tracker</th>
<th>Instructor Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>• 58 evaluations completed</td>
<td>• 1364 different activities total</td>
<td>• 3456 hours of instruction total</td>
</tr>
<tr>
<td>• Score range 3-14 (out of 15)</td>
<td>• Mean # of children per session = 19</td>
<td>• 344 hours per school per year</td>
</tr>
<tr>
<td>• Mean of 11.8</td>
<td>• Average time spent in PA = 18 mins</td>
<td>• Use of play structures = 20.7%</td>
</tr>
<tr>
<td>• 70.4% lessons implemented as planned</td>
<td>• Average recess time = 24 mins</td>
<td>• Participation from school staff was minimal</td>
</tr>
</tbody>
</table>

Acknowledgements
Supported by NICHD/NCI/NIDDK R01HD057229

Conclusions
While these numbers may seem to indicate an effective use of recess to increase PA, these results were not sustainable once the instructors were no longer present. These data also indicate that a great deal of time, planning and resources were needed, which the schools were not able to sustain on their own. It is expected upon the final study analysis that time spent in PA will drastically decrease when a dedicated instructor is no longer present on the playground.

*Preliminary findings are showing no curriculum intervention differences.

Implications
Recess is defined as regularly scheduled periods within the elementary school day for unstructured physical activity and play. As efforts are increased to use recess as a tool to increase PA levels, the true definition of recess is being lost. It may be fiction to believe that recess should be used to increase PA, when the fact might be that the demands of recess put more stress on limited school resources. We are not suggesting that recess be eliminated entirely, but we are suggesting that these preliminary findings might show a traditional structure may no longer meet the needs of today’s changing school environment. Further research is needed to investigate a different approach to PA throughout the school day that relies less on limited recess time and resources and more on restructuring the school day.

For more information contact: Eve M. Kutchman, M.Ed., University of Colorado – Anschutz Health and Wellness Center, 303-724-9185, eve.kutchman@ucdenver.edu