Background
The transition from incarceration to the community is a particularly high-risk period for offenders. During reentry they are more likely to engage in unhealthy behaviors. The Institute of Behavioral Research (IBR) at TCU first developed and tested an in-prison group-based curriculum titled WaySafe, targeted toward incarcerated offenders in their last phase of substance-abuse treatment to improve decision-making when they return to the community. The next step for IBR’s research team is the Disease Risk Reduction (DRR2) project with funding from the National Institute on Drug Abuse. Targeted toward community supervision populations, IBR created a self-paced curriculum, StaySafe, to test a decision-making strategy for reducing HIV risks.

Solution
The MakeSafe senior project, sponsored by IBR, developed the StaySafe tablet application for Android to meet IBR’s design requirements. Major objectives of this project included developing the StaySafe app, saving research data (e.g., user selections, usage statistics, and satisfaction survey responses), and creating a version-publishing application. Titled KeepSafe, this element provides the researchers with the ability for IBR to publish different versions of the application without further developer involvement. With IBR’s research experience in behavioral science and public health, and the MakeSafe team’s software programming expertise, we hope to deliver an effective intervention that guides better decisions and reduces the risk of HIV infection among probationers supervised by the community corrections system.

MakeSafe Software
The software developed by our team includes two applications:

- StaySafe
  - Application for Android tablets
  - Reads in dynamic JSON content
  - Saves and outputs research data
- KeepSafe
  - Standalone Java application
  - Publishes new versions of StaySafe
  - Utilizes JSON structure

MakeSafe Process
1. Make Curriculum Sustainable
   - KeepSafe begun on demand by IBR for StaySafe version changes
   - Update test through KeepSafe application
   - Combine with audio, video and digital images to produce StaySafe curriculum

2. Setup Tablets
   - Curriculum is saved on tablet
   - StaySafe application package (APK) installed

3. Session Execution
   - Participant initiates first session
   - Participant selects from menu and completes one self-paced session
   - User interactions and statistics are saved

4. Data Retrieval
   - Data output repository uploaded manually to IBR
   - IBR merges output into master database for analyses

MakeSafe Overview*

Results
- StaySafe application completed
- KeepSafe publishing software established for interaction with StaySafe
- Production deployment in Summer 2015
- Data production for later research analytics

Acknowledgments
The MakeSafe team would like to thank the staff at the Institute of Behavioral Research for allowing us to participate in their research project. The combined efforts of Dr. Wayne Lehman, Dr. Jennifer Pankow, Dr. Julie Gray, and Dr. Grace Rowan have made this project a truly enjoyable experience. We would also like to recognize the Computer Science faculty for sharing with us their knowledge and experiences that have helped us in our education endeavors at TCU. Go Frogs!

References and Copyrights
*StaySafe intervention was developed by the IBR authors/sponsors.
- Android OS: developer.android.com
- Android is a trademark of Google Inc.
- Java is a trademark of Oracle and/or its affiliates.
- Course information for Android Operating System course is used to illustrate the concepts, with permission from author S. Pankow.