

## **Change During Prime For Life® Program Participation: A Practical Perspective on its Significance**

*Adapted from:* Beadnell, B., Stafford, P.A., Crisafulli, M.A., Casey, E.A., & Rosengren, D.B. (2016). Methods for quantifying the clinical significance of change during intervention program participation. *Evaluation in the Health Professions*. Abstract available at: <http://ehp.sagepub.com/content/early/2016/02/12/0163278715622663.abstract>

### **Introduction**

When evaluating an intervention's effectiveness, researchers typically look at change averaged across participants. While this tells us whether people benefit, it does not reveal if such change is meaningful from a clinician's viewpoint. However, it is possible to look at the data differently. Specifically, we can identify the types of changes made, and how many people make them. The result is the ability to understand who moves into a low-risk group and, conversely, who might worsen.

#### **What we already knew from past studies:**

On average, Prime For Life (PFL) attendees show lower risk after PFL than before. This includes:

- Having more accurate beliefs about how much they can drink before it is problematic
- Intending to drink less in the future than in the past

#### **What we wondered:**

- What types of changes do PFL participants make, and how many make them?

#### **What we did:**

Two sets of analyses: one looked at individual questions and one at risk profile groups. While the individual questions provided a look at each belief and behavior, the profiles identified patterns of responses that reflected low-risk and high-risk subgroups. To accomplish this, we:

- Sampled 2,526 participants from five states
- Asked two questions about beliefs and two about behavior. The questions about behavior asked participants what they drank in the 90 days before PFL, and what they intended to drink in the 90 days after the program. These questions were:
  - How many drinks . . .*
  - *can you drink before it will be "high risk" for you?*
  - *can you drink before you are too impaired to drive safely?*
  - *did you/will you usually have?* (usual number of drinks)
  - *did you/will you most have in a day?* (peak number of drinks)
- Categorized people as Low Risk (3 or fewer drinks) or High Risk (4 or more) on their response to each question. This was based on one aspect of the PFL low-risk drinking guidelines which state that drinking 4 or more drinks in a day is high risk.

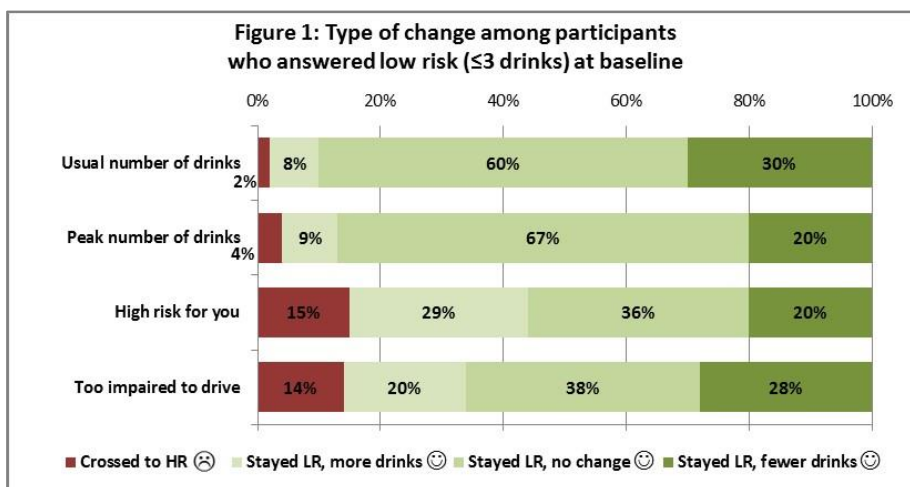
## Findings

### Analysis 1: Participant changes on the four questions

(Note: smiley faces indicate positive, neutral, or negative changes)

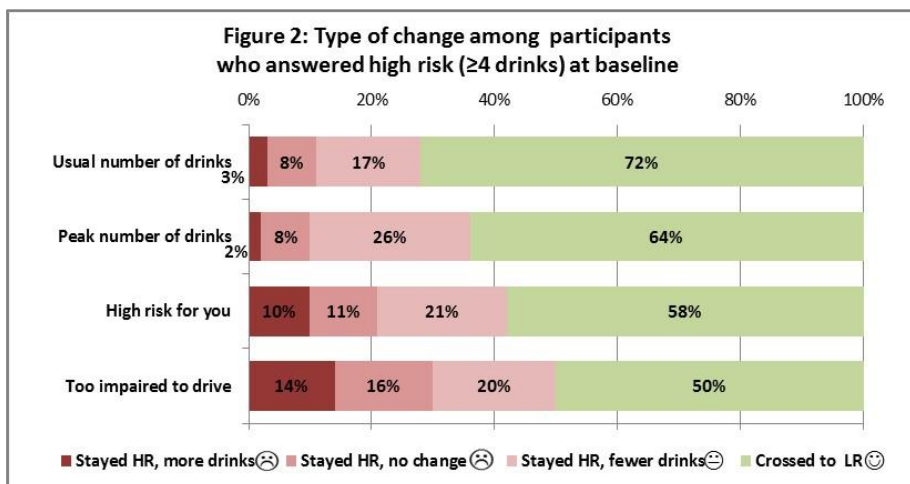
Before receiving PFL, 45% to 68% (depending on the question) answered in ways considered Low Risk (LR, defined as 3 or fewer drinks). Figure 1 shows that of these people:

- Most intended to stay Low Risk in their behavior, endorsing plans to either reduce, keep the same, or slightly increase (within the LR guidelines) the number of drinks after PFL. (Note that we consider an increase in the number of drinks as an acceptable outcome as long as it is within the guidelines.)
- A small but noticeable percentage increased the number of drinks they believed to be risky such that they crossed to High Risk.



Before receiving PFL, 32% to 55% (depending on the question) answered in ways considered High Risk (HR, defined as 4 or more drinks). Figure 2 shows that of these people:

- Half or more crossed to Low Risk in the number of drinks they intended to consume and in their beliefs about how many drinks create risk. Most staying HR intended at least some decrease.
- Unfortunately, a smaller but noticeable percentage either maintained or increased the number of drinks they believed to be risky.



### Analysis 2: Looking at Risk Profile Groups

Analyses identified four profile groups, according to their source of risk (Table 1)

- Two groups were lower risk: answering 3 or fewer drinks on all questions (Low Risk group) or at least only on the two behavior questions (Beliefs group)
- Two groups were higher risk: answering 4 or more drinks on either the two behavior questions (Behavior group) or all questions (Beliefs + Behavior group)

Table 1: Group Characteristics

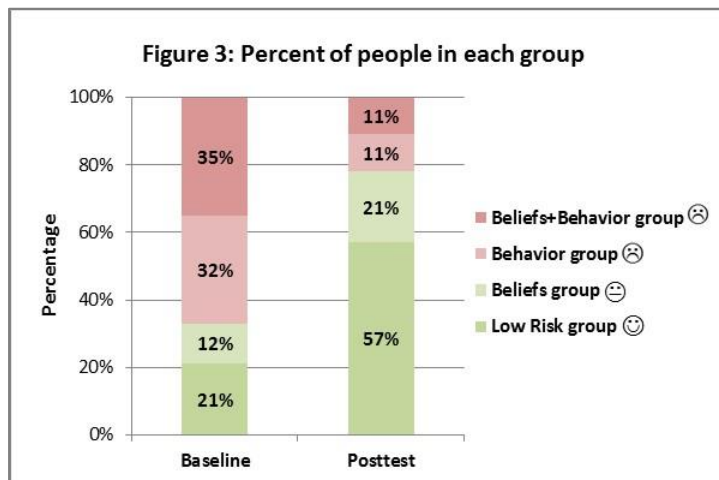
Risk Factor	Source of Risk for Each Group			
	Low Risk ☺	Beliefs ☹	Behavior ☹	Beliefs+ Behavior ☹
How many can you drink . . .				
In a day before it is high risk for you?		√		√
Before you are too impaired to drive?		√		√
How many drinks in 90 days <sup>a</sup>				
Usual number			√	√
Peak number			√	√

√'s indicate that people in the group tend to answer as high risk (≥ 4 drinks).

<sup>a</sup>At baseline was self-reported drinking in the previous 90 days; at posttest was intentions for the next 90 days.

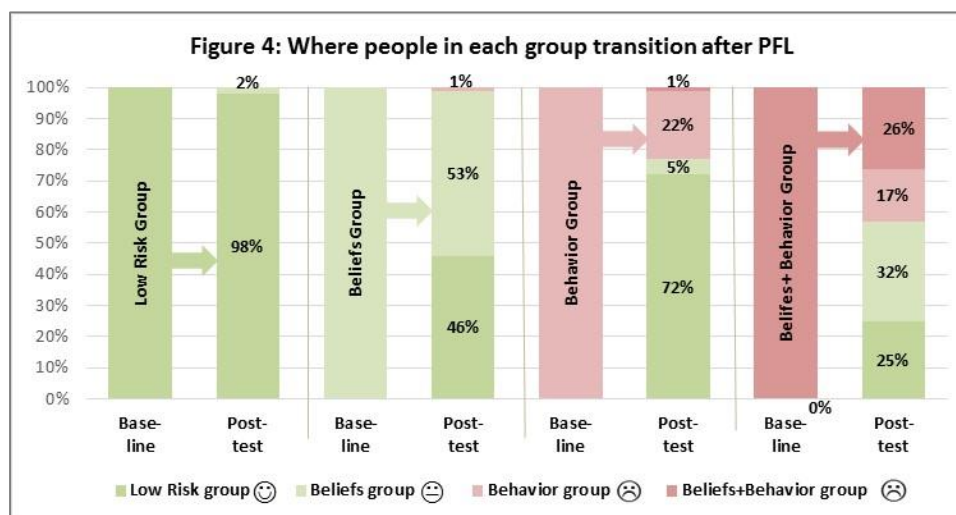
Positive changes occurred from before to after PFL participation (Figure 3)

- These same four risk profile groups existed both before and after PFL
- Many people transitioned to a lower-risk group
- The majority were in higher-risk groups before PFL, but lower-risk groups after participating



Looking at people who were members of each risk profile group before PFL (Figure 4)

- Positive changes occurred for each profile group
- Among those in lower-risk profile groups at baseline:
  - Low Risk group: almost everyone there at baseline remained there at posttest
  - Beliefs group: almost everyone either stayed or transitioned to the Low Risk group after PFL
- Among those in higher-risk profile groups at baseline:
  - The majority transitioned to one of the two lower-risk groups after PFL
  - About a quarter remained in their original higher-risk group after PFL



## Conclusions

Numerous program evaluations have shown that PFL participants *on average* benefit from program participation. These results here show *how many* benefit in terms of changes from before to immediately after participating in PFL. More specifically, the study revealed:

- The majority showed clinically meaningful improvements, both in terms of their risk profile and responses to individual questions.
- A small but noticeable number of participants shifted toward higher risk when responding to individual questions about their beliefs. Very few did so for questions about their intended drinking behavior.
- When looking at risk profile groups, such a shift toward greater risk (worsening) was not observed. However, as would be expected from any indicated prevention program (one that targets people who have already demonstrated risk) a small minority remained in a higher-risk profile group.
- The positive changes observed for the majority of participants validate the benefits of the PFL program. The rare but useful observations about participants who showed little to no benefit can inform future instructor training and PFL program development.