

Appendix I

Fall risk screening instrument for frail older community dwelling people.

1. Have you experienced a fall during the past 12 months?
 - Yes → Possible high fall risk, investigate further with diagnose checklist
 - No → Go to question 2

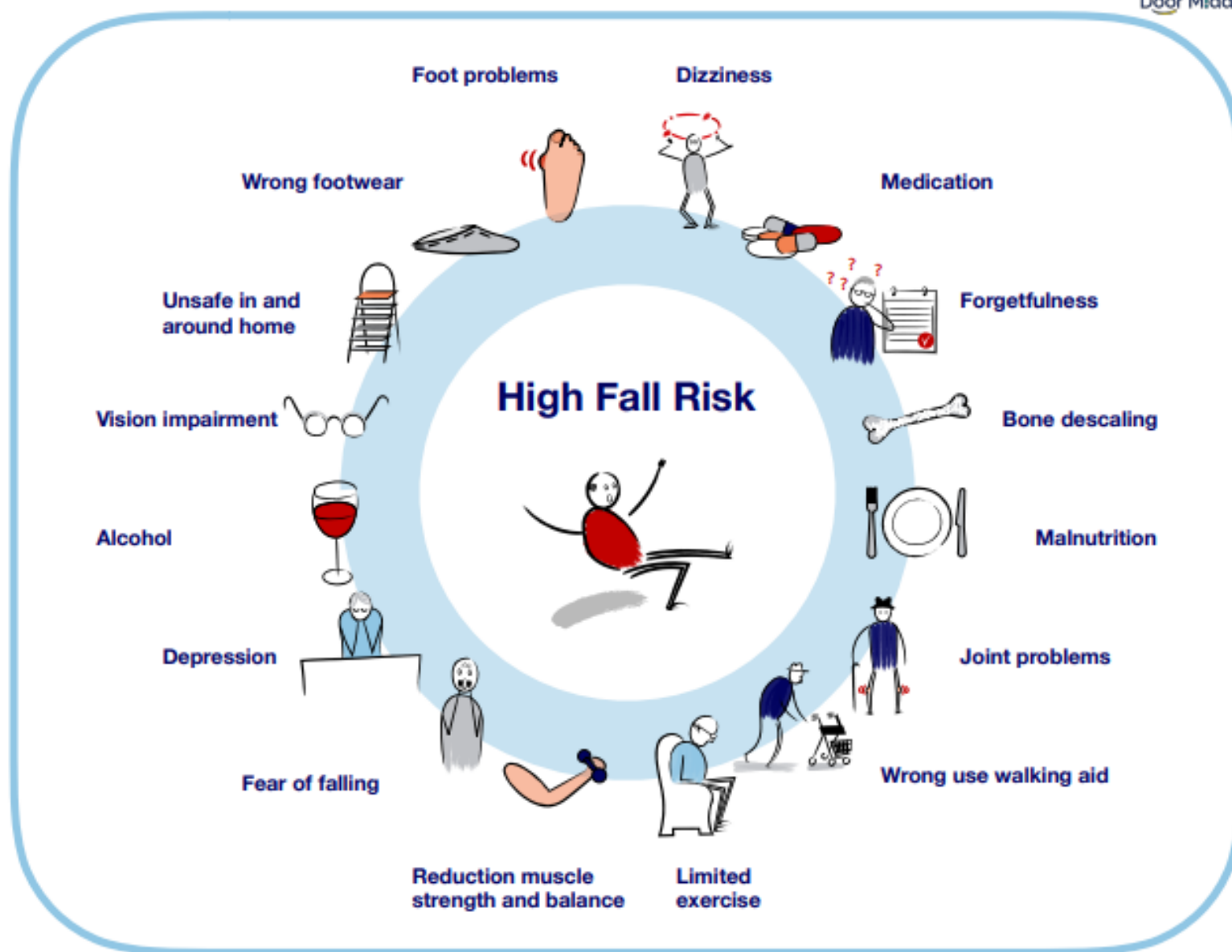
2. Do you have a fear of falling?
 - Yes → Possible high fall risk, investigate further with diagnose checklist
 - No → If question 1 and 2 are answered with 'No', no further investigation is needed unless clinical expertise indicates otherwise.

Diagnose checklist fall risk

Cause high fall risk (Multiple causes possible)		
<input type="checkbox"/> Limitations in mobility/ Activities Daily Living/ physical function	<input type="checkbox"/> Cardiovascular factors	<input type="checkbox"/> Safety home
<input type="checkbox"/> Lack of exercise	<input type="checkbox"/> Syncope	<input type="checkbox"/> Wrong footwear
<input type="checkbox"/> Reduction muscle strength and balance	<input type="checkbox"/> Dizziness	<input type="checkbox"/> Incorrect use walking aid
<input type="checkbox"/> Fear of falling	<input type="checkbox"/> Osteoporosis	<input type="checkbox"/> Foot problems
<input type="checkbox"/> Polypharmacy, and/or use of sedative or sleep medication	<input type="checkbox"/> Joint problems	<input type="checkbox"/> Alcohol use
<input type="checkbox"/> Vision impairment	<input type="checkbox"/> Bone descaling	<input type="checkbox"/> Nutrition
<input type="checkbox"/> Urine-incontinence, incontinence of defecation	<input type="checkbox"/> Fracture risk/ patient experienced past 3 years a fracture	<input type="checkbox"/> Other, namely.....
<input type="checkbox"/> Depressive symptoms	<input type="checkbox"/> Cognitive problems	

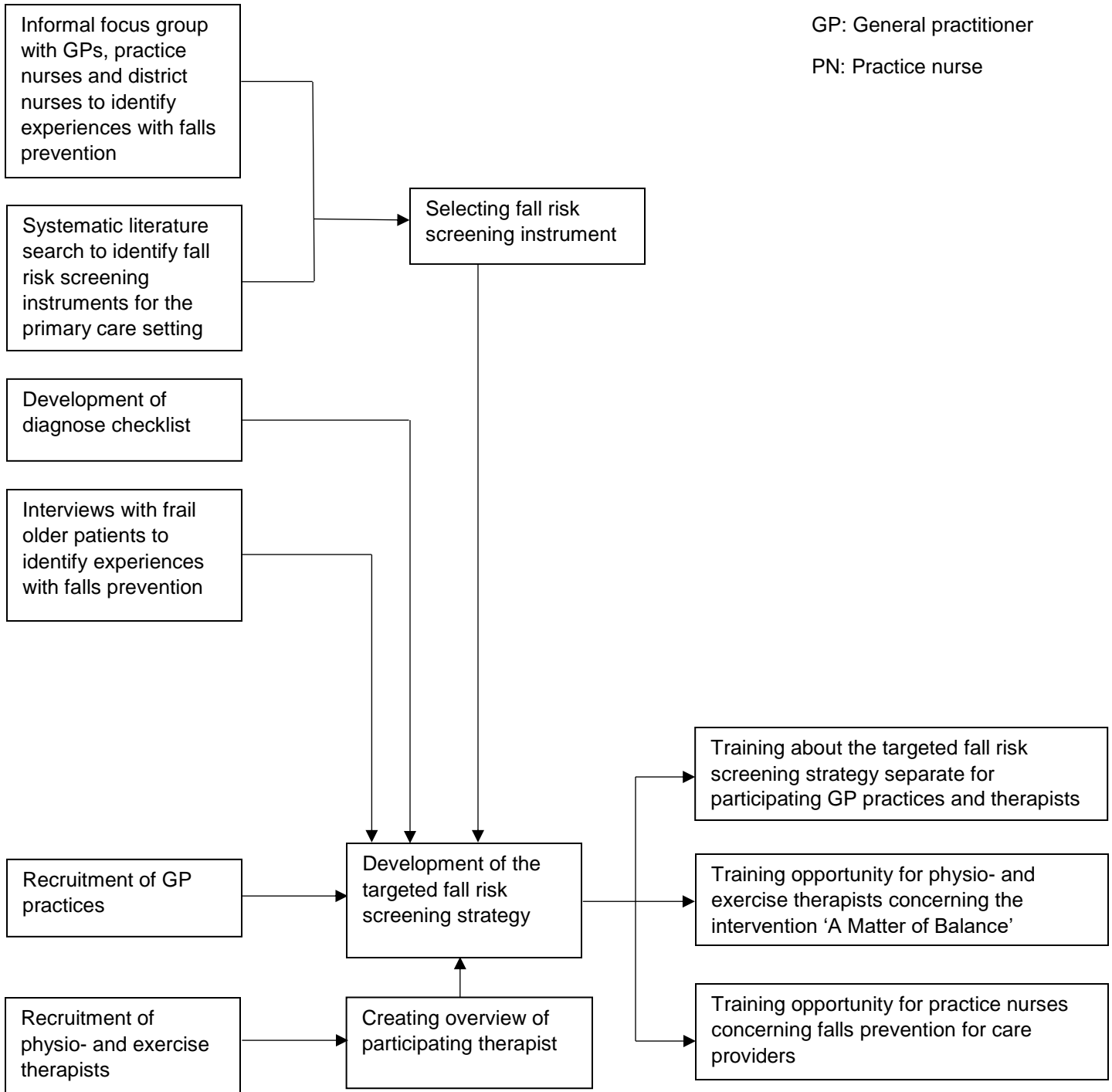
'Talking paper' is used to talk with the patient about the different causes of high fall risk. (Developed by M. Dooremalen, www.doormiddelvan.nl).

Door Middel Van.

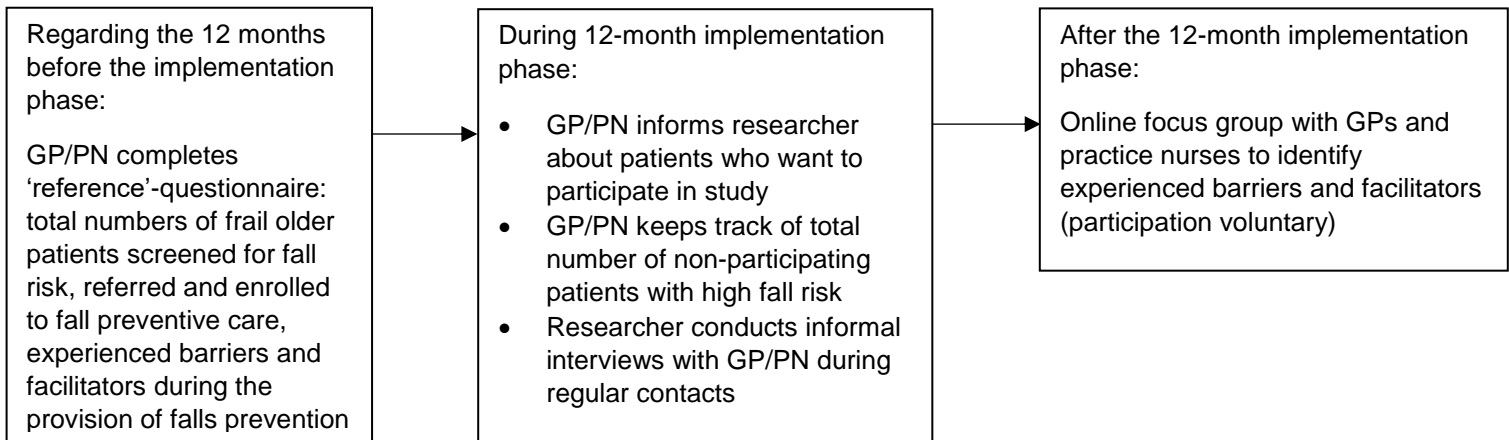


Appendix II

Flowchart 1: Set-up implementation targeted fall risk screening strategy by research team (Step 1 and Step 3)



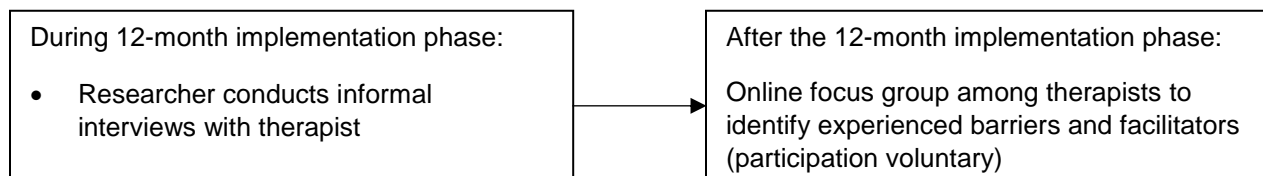
Flowchart 2: Data collection among GP practices concerning evaluation of the targeted fall risk screening strategy (Step 2, Step 4 and Step 5)



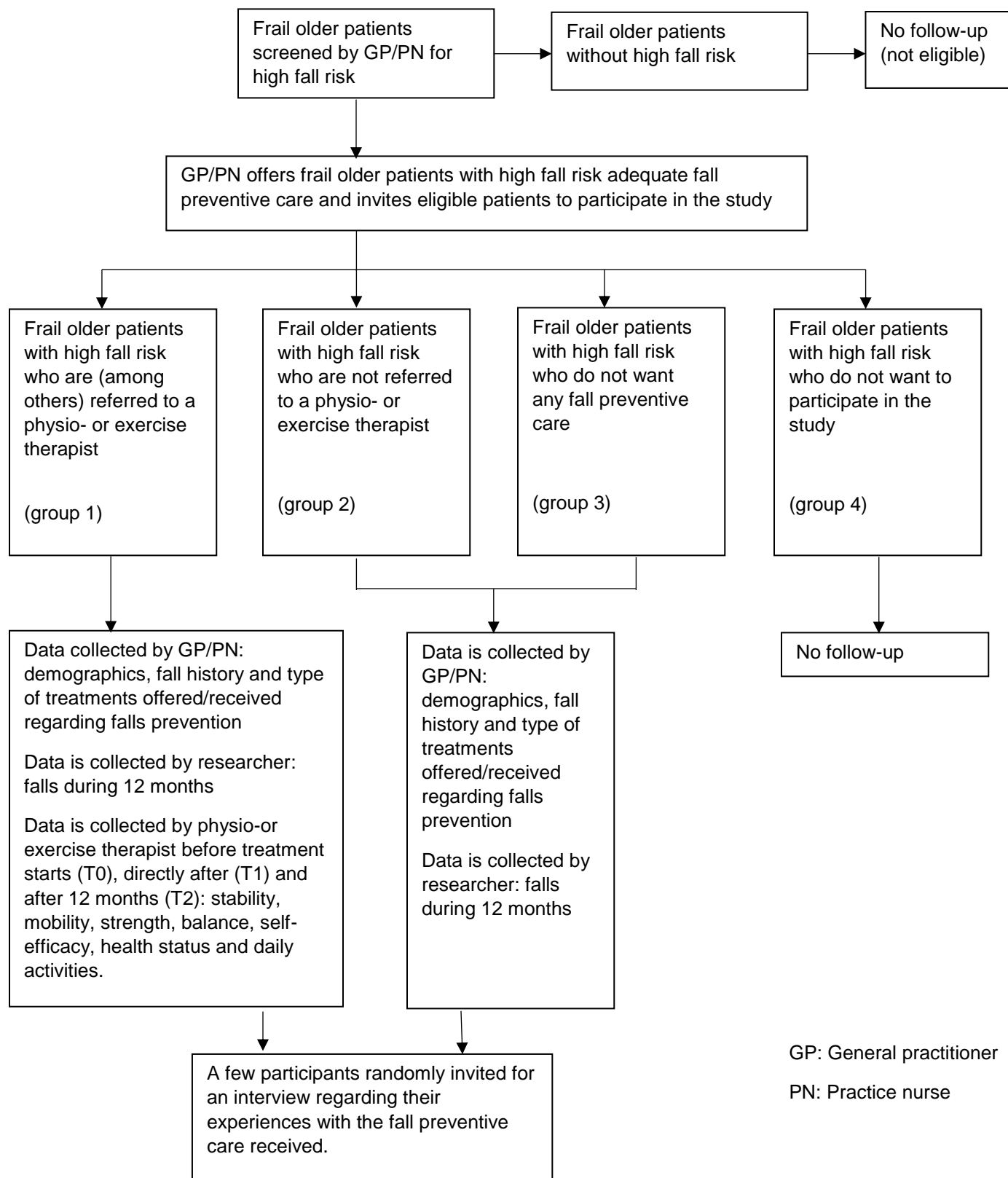
GP: General practitioner

PN: Practice nurse

Flowchart 3: Data collection among physio- and exercise therapists concerning evaluation of the targeted fall risk screening strategy (Step 5)



Flowchart 4: Data collection among frail older patients with high fall risk concerning evaluation of the targeted fall risk screening strategy (Step 4 and Step 5)



Appendix III

Sample Size Calculation

Dichotomous Endpoint, One-Sample Study

Sample Size	
Group 1	137
Total	137
Study Parameters	
Incidence, population	20%
Incidence, study group	30%
Alpha	0.05
Beta	0.2
Power	0.8

Power Calculations

$$N = \frac{p_0 q_0 \left\{ z_{1-\alpha/2} + z_{1-\beta} \sqrt{\frac{p_1 q_1}{p_0 q_0}} \right\}^2}{(p_1 - p_0)^2}$$
$$q_0 = 1 - p_0$$
$$q_1 = 1 - p_1$$
$$N = \frac{0.2 * 0.8 \left\{ 1.96 + 0.84 \sqrt{\frac{0.3 * 0.7}{0.2 * 0.8}} \right\}^2}{(0.3 - 0.2)^2}$$
$$N = 137$$

p_0 = proportion (incidence) of population
 p_1 = proportion (incidence) of study group
 N = sample size for study group
 α = probability of type I error (usually 0.05)
 β = probability of type II error (usually 0.2)
 z = critical Z value for a given α or β