

<i>Design</i>	<i>Randomization determines</i>	<i>Most useful when</i>	<i>Advantages</i>	<i>Disadvantages</i>
<b>Basic Lottery</b>	<ul style="list-style-type: none"> <li>o Which treatment the unit receives</li> <li>o Unit keeps treatment status throughout the evaluation</li> <li>o Treatment differential comes from withholding treatment</li> </ul>	<ul style="list-style-type: none"> <li>o When program is oversubscribed, when demand exceeds supply</li> <li>o When resources are fixed for evaluation period</li> <li>o When it is acceptable that some people will receive no program assistance (as when a program is being piloted)</li> </ul>	<ul style="list-style-type: none"> <li>o Ubiquitous and familiar</li> <li>o Universally understood</li> <li>o Universally accepted as fair</li> <li>o Easy to implement</li> </ul>	<ul style="list-style-type: none"> <li>o Differential attrition—units in the comparison group more likely to drop out (because they get no benefits from continued participation)</li> </ul>
<b>Phase in</b>	<ul style="list-style-type: none"> <li>o The time (in a gradual expansion) at which the unit will start receiving treatment</li> <li>o Unit permanently switches from comparison to treatment when it starts receiving treatment</li> <li>o Treatment differential comes from withholding treatment</li> </ul>	<ul style="list-style-type: none"> <li>o When everyone must eventually receive treatment</li> <li>o When resources are growing over time</li> <li>o When treatment is being replicated</li> </ul>	<ul style="list-style-type: none"> <li>o Common</li> <li>o Easy to understand</li> <li>o Facilitates continued cooperation by the comparison (in anticipation of treatment)</li> </ul>	<ul style="list-style-type: none"> <li>o Treatment group eventually goes away</li> <li>o Anticipation of treatment may cause participants to change behavior, masking outcome differences</li> <li>o Time over which impact can be measured may be limited (the switch may come before the program has had time to have an effect)</li> <li>o Difficult to estimate long-term impact</li> </ul>
<b>Rotation</b>	<ul style="list-style-type: none"> <li>o The time period (in a cyclical schedule) in which the unit receives the treatment, before the treatment rotates away to other units</li> <li>o Unit switches treatment statuses if the evaluation period is longer than treatment period</li> <li>o Treatment differential comes from withholding treatment</li> </ul>	<ul style="list-style-type: none"> <li>o When everyone must receive the treatment at some point but there are not enough resources to treat everyone at the same time</li> <li>o When resources are fixed and can only be used one group at a time</li> <li>o When treatment is seen not as beneficial but as a burden to be shared</li> </ul>	<ul style="list-style-type: none"> <li>o Ubiquitous and familiar (same idea as taking turns with duties or timesharing a vacation home)</li> <li>o There is always control and a comparison group as long as the cycle continues (and the groups switch replications) so you can keep testing different hypothesis</li> <li>o Facilitates continued cooperation by the comparison (in anticipation of treatment)</li> </ul>	<ul style="list-style-type: none"> <li>o Anticipation of treatment may cause participants to change behavior, masking outcome differences</li> <li>o Time over which impact can be measured may be limited (the switch may come before the program has had time to have an effect)</li> <li>o Difficult to estimate long-term impact</li> </ul>

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<b>Encouragement</b>	<ul style="list-style-type: none"> <li>○ Whether the units receives inducement to access the treatment</li> <li>○ Unit keeps treatment status throughout the evaluation</li> <li>○ Treatment differential comes from higher program take-up among the encouraged</li> </ul>	<ul style="list-style-type: none"> <li>○ When program is under-subscribed: when it is open to all comers but take-up is not universal (either program is unknown or unpopular)</li> <li>○ When no eligible units can be excluded (as with entitlement programs)</li> </ul>	<ul style="list-style-type: none"> <li>○ Allows evaluation of programs that cannot exclude or delay treatment to anyone (as when there are enough resources to cover everyone)</li> </ul>	<ul style="list-style-type: none"> <li>○ Ability to generalize findings to the population of interest depends on who the inducement attracts</li> <li>○ If inducement is too attractive it could end up attracting the wrong people, if it's not attractive enough there is not treatment differential</li> </ul>
<b>Varying levels of treatment</b>	<ul style="list-style-type: none"> <li>○ How much of the treatment an individual or cluster receives</li> </ul>	<ul style="list-style-type: none"> <li>○ A treatment is divisible</li> </ul>	<ul style="list-style-type: none"> <li>○</li> </ul>	<ul style="list-style-type: none"> <li>○</li> </ul>
<b>Two-Stage Randomization</b>	<p>First stage:</p> <ul style="list-style-type: none"> <li>○ Which clusters receives (which) treatment(s) and which clusters are control</li> <li>○ Unit keeps treatment status throughout the evaluation</li> </ul> <p>Second stage</p> <ul style="list-style-type: none"> <li>○ Which individuals within a treated unit receive direct treatment</li> <li>○ Which individuals within a treatment village will not be directly treated, but may receive indirect benefits from having treated neighbors</li> </ul>	<ul style="list-style-type: none"> <li>○ There are significant spillovers or crossovers within a cluster.</li> <li>○ Treating <i>all</i> individuals within a cluster is not feasible</li> <li>○ The implementing organization is trying to cut costs</li> </ul>	<ul style="list-style-type: none"> <li>○ There are significant spillovers.</li> <li>○ It is valuable to learn not just the direct treatment effect, but also indirect effects.</li> <li>○ If it is important to varying intensity</li> </ul>	<ul style="list-style-type: none"> <li>○</li> </ul>