

Effective Use of Small Multiples Charts

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| Purpose | This tool provides guidelines and tips on how to effectively use Small Multiples charts to communicate research findings. |
| Format | This tool provides guidance on Small Multiples charts and their purposes, and shows examples of preferred practices and practical tips for Small Multiples charts. |
| Audience | This tool is designed primarily for researchers from the Model Systems that are funded by the National Institute on Disability, Independent Living, and Rehabilitation Research (NIDILRR). The tool can be adapted by other NIDILRR-funded grantees and the general public. |

The contents of this tool were developed under a grant from the National Institute on Disability, Independent Living, and Rehabilitation Research (NIDILRR grant number 90DP0012-01-00). The contents of this fact sheet do not necessarily represent the policy of Department of Health and Human Services, and you should not assume endorsement by the Federal Government.

Small Multiples Charts

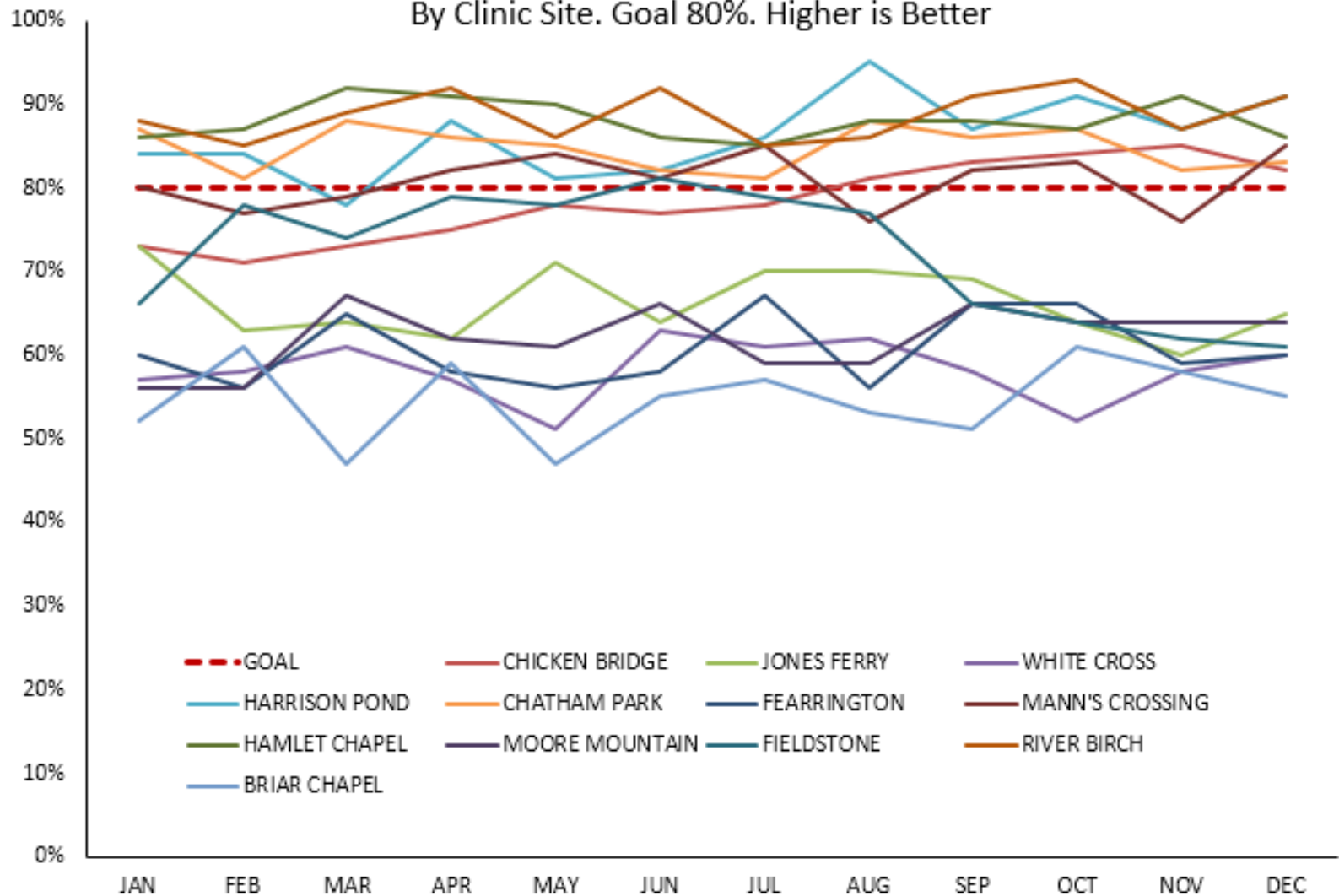
- ▶ The primary use of a Small Multiples Chart is to display a series of similar charts in reduced size format (ideally to fit on one screen) for quick comparisons and monitoring.
- ▶ Small Multiples charts also called Panel Charts, Grid Charts, Lattice Charts.
- ▶ Example: You have 12 health clinic sites in a particular geo-catchment area. You have established a goal that at least 80% of all children seen at each clinic should have received their full set of immunizations before their third birthday. You monitor the actual childhood immunization rate in each of your 12 clinics by month to assess progress toward and compliance with this standard. You could chart the performance of the 12 clinics with a single multi-line chart or a single clustered column chart, but such would be difficult to read. Instead consider creating a series of 12 reduced size small multiple trend charts (one for each clinic) and place the 12 charts on one screen for easy review.

Small Multiples Charts

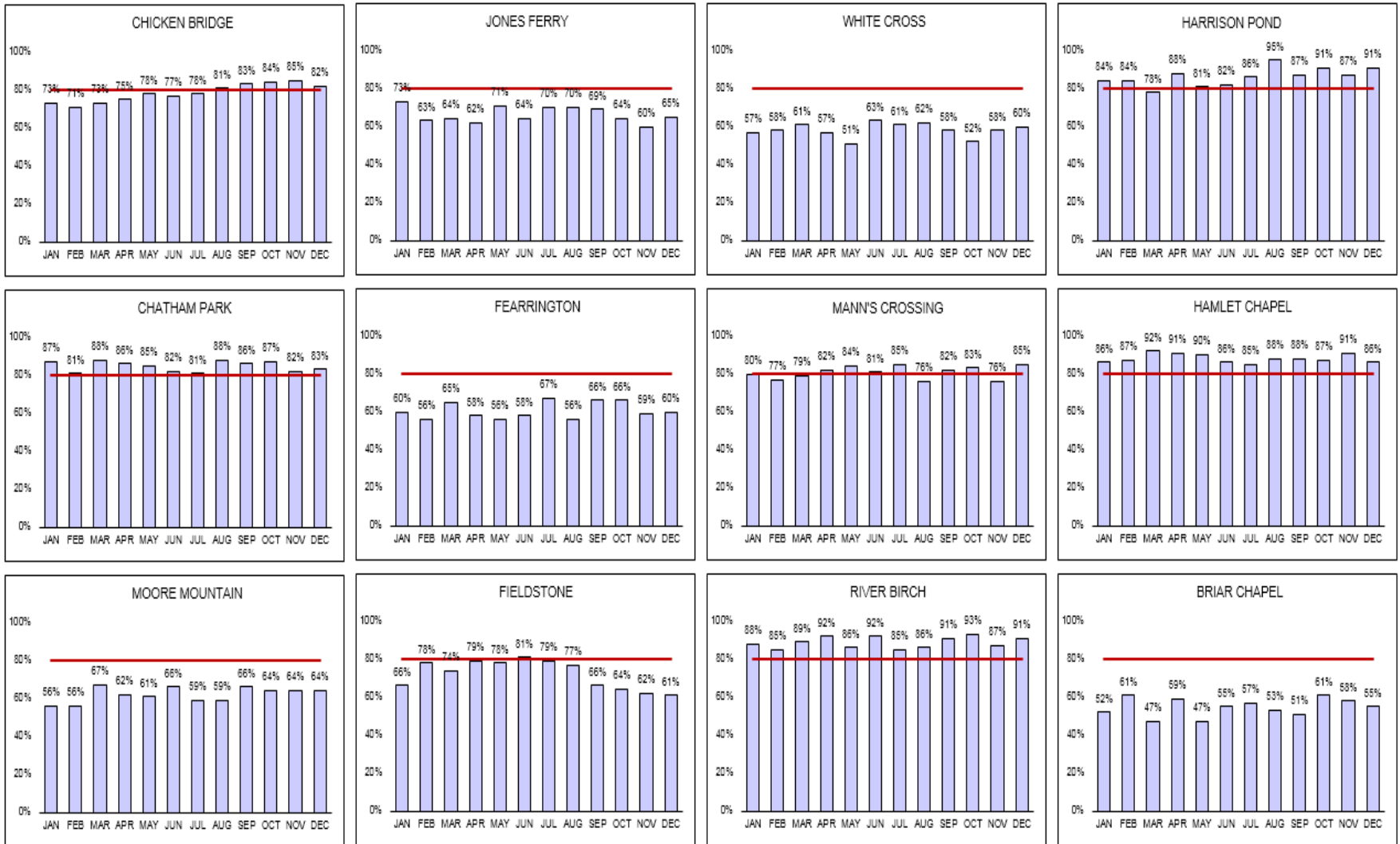
- ▶ Usually, but not always, the component charts in a small multiples display have the same visual look and feel and the same vertical axis scaling (same minimum and same maximum) for ease in comparison.
- ▶ Small multiples charts can take the form of a series of column charts, a series of area or line charts, a series of pie charts, even a series of small coded maps.

Multi-Line Chart Too Difficult To Read

Percent of Child Patients Fully Immunized Before Third Birthday – 2014
By Clinic Site. Goal 80%. Higher is Better



Percent of Child Patients Fully Immunized Before Third Birthday – 2014 By Clinic Site. Goal 80%. Higher is Better



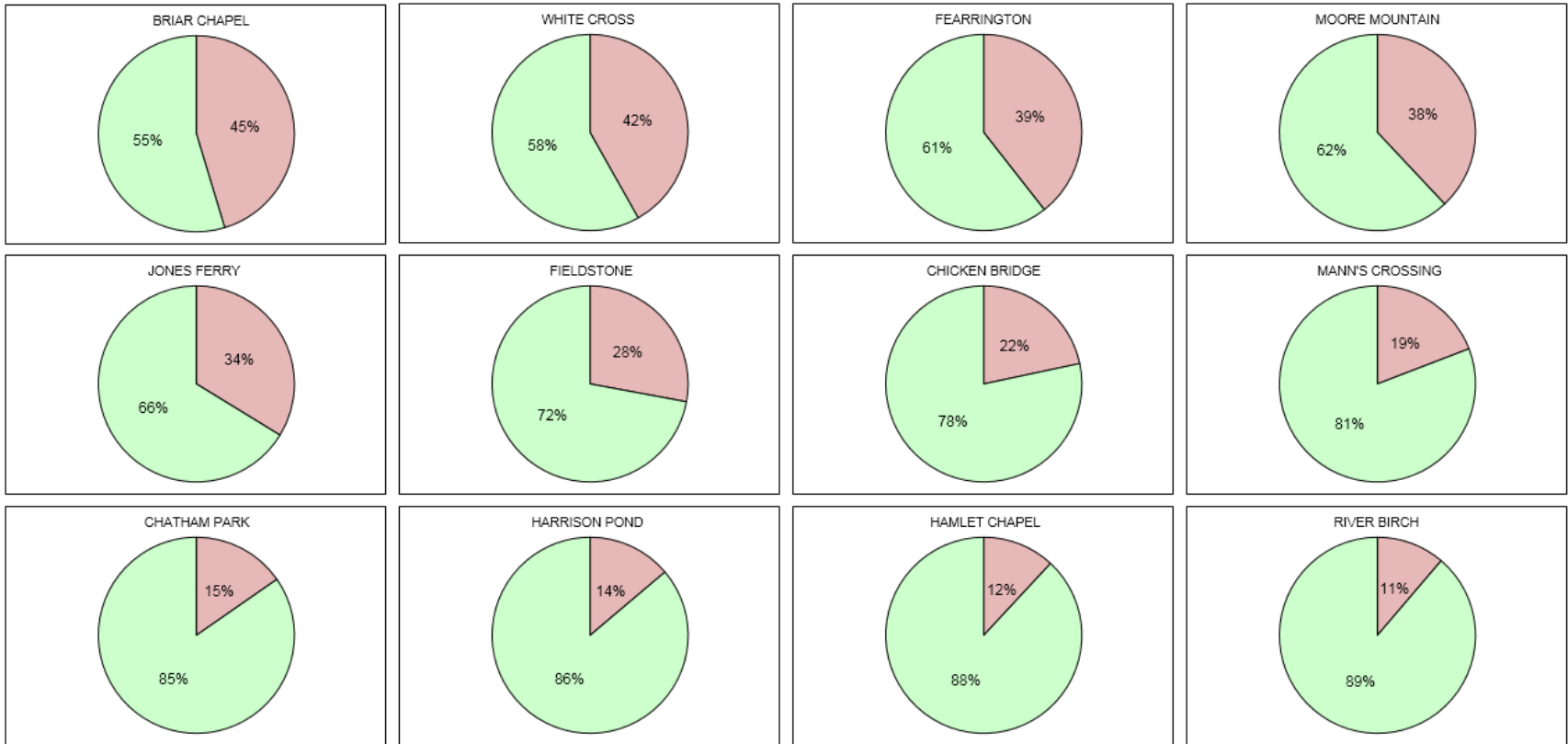
Source: Mock Data

Small Multiples Charts

- ▶ Since each chart in a small multiple series is small, consider eliminating all unnecessary features from each chart.
- ▶ Example: Could display only the top value on the vertical scale for the left-most chart in a small multiples row, then eliminate the scale from the other charts in the row.
- ▶ Depending upon your intent, you may want to display your small multiple charts ranked in order of magnitude or performance. Or you may simply order the multiples alphabetically etc.
- ▶ The small multiples display is intended to provide a quick overview. You can allow the user to click on a small multiple chart of interest to drill to a more detailed version.

Percent of Child Patients Fully Immunized and Not Fully Immunized Before Third Birthday – 2014 Annual Average - By Clinic Site

Goal 80% or More Immunized



■ Immunized

■ Not Immunized

In this example, the small multiples are sorted from worst performance to best