

Upgrading to Web Version (V4) of BCFPI from Desktop Version (V3): Benefits and Costs

11 Valuable Benefits When Shifting to V4 (BCFPI Web Version)

1. **Increase in Service System Responsiveness**
2. **Increase in service System Productivity**

During the Intake Interview BCFPI V4 shows the intake worker whether the case should be considered for immediate referral to specific services, which are likely to be helpful, given checklist aspects of the case profile. Many of these services are supportive skill building programs, for parents of children presenting with behavioural problems.

- During the conclusion of the intake interview, the system displays the immediate services¹ (if any) which should be considered for the case
- The worker records whether or not they suggest each listed service to the case
 - They can record a reason if they decide not to suggest the service
- The worker records (yes /no) whether the case is interested in the suggested service
 - If 'No', the worker can record a reason (e.g., 'doesn't like groups')
 - If 'Yes' the worker can confirm contact information and can facilitate access to the service

This process enhances the service system's responsiveness: a service can be offered immediately, by the intake worker, during the intake interview, to suitable cases, without the delay of an assessment waiting list prior to accessing this service.

It also enhances service system productivity: in a typical primary setting ~ 30% of cases will be eligible for such services, and ~ ½ of these (15% of all referrals to the agency) will show significant short and long-term improvement in both child and family measures, from these immediate services, which will be satisfactory to the cases. These cases can thus avoid the cost of 1:1 assessment and treatment.

Managers can review the extent to which referrals are eligible for these services; the extent to which they are offered, and the extent to which they are accepted. They can also monitor short term outcomes and satisfaction, and long term outcomes for eligible cases. Strategic use of this module increases the likelihood that intake worker will consistently consider these immediate services, and agency responsiveness and productivity will be increased.

¹ Each agency can select whether to use this module, and which services and criteria to include in the module.

3. Improved Evidence-based Service Planning Reports

- BCFPI's evidence-based service planning reports show evidence-based, replicable interventions, which have been shown to be effective for cases similar to a given case (age, gender, diagnosis)
- V4 links to references regarding these services are 'hot links'... i.e., if clicked, the user is taken to the abstract for the published article in the National Library of Medicine (Washington). There, the user can click on 'Related articles', and sort these by date, and typically see 100+ studies concerning such cases or interventions (mostly outcome studies)
 - Thus the V4 user can run a case report, and be immediately connected to recent literature concerning such cases
- This can inform treatment decisions for a particular case
- It's also useful when considering an agency's BCFPI referral prevalence, waitlist and outcomes data...
 - i. What's the largest demand (age and symptom profiles)?
 - ii. Where's the largest backlog (age and symptom profiles)?
 - iii. Which groups have best / worst BCFPI outcomes and satisfaction?
 - What does the literature suggest re the most cost-effective interventions for groups in i) – iii) above, which seem to warrant review, and how do the agencies current practices and results correspond to published 'gold standards'?

4. File Sharing

- Agencies can share consenting cases with each other when they are collaborating on or transferring a case (ad hoc inter-agency sharing or Central Intake referrals to provider sites)
- Sharing is done via BCFPI's secure server, and eliminates the cost and security risks involved in producing and distributing paper copies of files
- The receiving site can view the shared interviews, and run related reports... single case, comparative or aggregate
- The receiving site can directly update its enrolment's admission and discharge dates to support local statistics
- receiving sites can add further interviews and program enrolments to the case file, and share these with other agencies, including the originating site, if needed
- This file sharing is encrypted, secure, immediate and private

5. Support for and Automation of Outcomes Data Collection

- At the end of the Intake interview, the informant is asked for consent to be contacted to complete a follow-up checklist regarding the case's symptoms and functioning (typically in 6 months)
- If consent is given, the interview is set up, scheduled 6 months hence, with the informant's current contact information
- Currently, system users monitor lists of pending interviews, and activate and complete the interviews as their scheduled dates become current

- a module is in development which will send the consenting informant a link to a secure, personalized on-line checklist, on the scheduled date, which can then be completed on-line by the informant
- We are designing a module which will use a computerized phone call, with consenting informants, for completion of these checklists ('IVR'; currently in very successful use by Swedish BCFPI users)
- In both of these cases, the informant will be asked for consent for a subsequent 6 month follow-up (currently planned to extend 2 years)
- The system will manage call backs for non-respondents (number of tries to be set by agency: typically 3)
- The follow-up site will monitor non-compliant cases, and process manually, as per local agency policy
- This is designed so it can be managed by a centralized follow-up site or the service provider agency
 - If managed centrally, the informant is asked for consent before a completed checklist is shared back to the original provider agency
 - If this consent is denied, the agency does not see the completed checklist. However the non-identifying checklist data is available for outcomes analysis
 - If consent is given, the checklist is shared with the originating provider agency

Historically, it has been costly and inefficient for agencies to manage sampling for and collection of discharge and follow-up data. Compliance rates with ad hoc, manual systems have been ~ 30% - 40%, and management costs have been high. Our field experience indicates that this system will be much less costly, easier to manage well, and more effective.

6. Minimization of Local BCFPI IT costs

V4 requires a web link and access credentials. V4 requires no local installation of software and hence local software costs are very low. Sites can manage their own user accounts, or this support can be provided centrally.

7. Compliant with Privacy and Security Requirements and Best Practices

V4 BCFPI is compliant with PIPA requirements in Canada and Europe.

- BCFPI DB servers (UK and Canada) are in secure environments, with controlled access and climate
- Timely On-site and off-site backups
- All data transmissions are highly encrypted, and occur in unformatted fashion
- 2 factor authentication is used for access, as required by the EU. A personalized token is provided to each user which provides a 1-time password, which changes every 30 seconds, and is required for each access
 - Each user has personalized privileges, corresponding to their functions

- Real-time audit reports can be run by agency managers, showing who has accessed a given file for what purposes, and which files a given user has accessed
- Custom printed reports are available, on request, for clients, listing all questions, and recorded responses and comments

8. Improved Access to Agency Data

- Persons and completed questionnaires can be quickly accessed by person, form and interview searches, which allow detailed specification of search criteria
- Full navigation within a person's file, to all of the persons enrolments and questionnaires
- "Complex Search" which returns a list of persons (and all of their interviews) for persons meeting user specified combinations of age, gender, enrolment, scores, items and response criteria. Results can be exported to Excel and criteria can be saved for re-use.

9. Access to Real Time, Non-Identifying, Canadian and Global CMH Data

Agency and regional data aggregate can inform and support all service providers as they work to optimize local CMH services.

V4 users can run filtered and grouped aggregate reports re the numbers of cases seeking service, showing problem types and severity, waiting lists and outcomes and response rates to user-specified questions. Outcomes include average scores, effect sizes and standard deviations, and can be limited to score thresholds (e.g. Effect size for cases with 'Pre' Conduct scores => 65). All reports can be displayed in time series re pre-measures and/ or post measures. Interviews for multiply referred cases can be dynamically linked to multiple enrolments in multiple agencies, and grouped (Status = 'Before', 'During', 'After' service; and 'How long' 'Before Admission', 'In treatment' or 'After discharge') in relation to particular agency or program enrolments based on the requirements of the query .

10. Support for Inter-agency and Inter-Provincial R&D

Funded field studies related to CMH services and cases will typically be designed and managed by academic settings, but will involve participation by multiple clinical locations. Data management is more difficult and costly with stand-alone agencies than with agencies sharing a single, partitioned, web-based system

- This includes interagency provision of services, e.g., the pending trial of Nova Scotia's CD-based, Family Help programs, targeting kids with behavioural or anxiety problems
- BCFPI supports sharing cases and services, given informed consent
- BCFPI supports successive profiles of such cases. In 1 or several locations, for outcomes measurement
- BCFPI provides non-identifying database extracts for advanced analysis... e.g., regression analysis re risk and protective factors re best outcomes for teens with Mood problems

11. Continuing Enhancements to V4

BCFPI inc. continues to invest in V4's clinical measurement, screening, triaging, data management. analysis and reporting capacity and performance, and releases updates (~ quarterly) reflecting these

continued enhancements. It is not technically or economically feasible to develop these same enhancements for V3. BCFPI inc. will phase out V3 as soon as users have shifted to V4.

BCFPI Costs

- Ontario V3 users converting to V4 will incur a marginal added cost for data conversion and ongoing use of V4. For details contact <mailto:support@bcfpi.com>

Summary

- BCFPI annual system costs typically correspond to ~ 0.2% - 0.4% of an agency's annual budget
- This BCFPI cost is likely to be offset 20 -40X by the value of added system productivity (benefit #2, above)
- Other benefits of V4 discussed above include:
 1. Increase in Service System Responsiveness (service quality)
 3. Improved Evidence-based Service Planning Reports (service quality, efficiency)
 4. File Sharing (internal utility, efficiency, security)
 5. Support for and Automation of Outcomes Data Collection (\$ saving, internal utility)
 6. Minimization of Local or Outsourced BCFPI IT costs (\$ saving)
 7. Compliant with Privacy and Security Requirements and Best Practices (Risk management, Best Practices)
 - 8 Improved Access to Agency Data (Utility, quality)
 9. Access to Real Time, Non-Identifying, Canadian and Global CMH Data (Utility, R&D)
 10. Support for Inter-agency and Inter-Provincial R&D (R&D)
 11. Access to Continuing Enhancements to V4 (Value added)