

Advancing the Field of APS through Research:

An Introduction to the Tool for Risk, Interventions and Outcomes (TRIO)



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And, so it began... 2008

1. Changing demographics and affect on APS
 - Aging of America
 - Prevalence rate of cognitive impairment
 - Longevity
 - Increased referrals to APS and increased case loads
 - Heightened sense of accountability
2. Lack of standardized approach leading to improved outcomes
3. Limited research on APS clients being served, interventions and outcomes
4. Focus on measuring process objectives



The Missing Link...

A comprehensive evidenced-based framework and measurement process to provide guidance to APS social workers ensuring consistency in practice and improving outcomes for clients served.



Our mission

To design a tool based on established social work practice that:

- Standardizes the approach to investigation and assessment
- Improves consistency by using agreed upon terminology
- Guides the practice of the social worker
- Documents the work
- Measures client and program outcome

When APS responds, do we make a difference in the lives of people?

The Right intervention, at the right time for the right reason



Design of the TRIO

Designed by Social Workers for Social Workers in APS

Uses established social work practices:

- Bio-psycho-social approach
 - Measures the goal and progress toward goal
- Person in the environment fit

Scoring versus cluster of risks forming a client profile

TRIO is one component of an APS system (scheduled supervision, MDT, integrated medical, ongoing training, curbside consulting, case reviews)

Comprehensive investigation & assessment versus allegation driven approach

Progressive nature of abuse and neglect



“Although longitudinal data are absent, it seems probable that elder abuse situations may follow a pattern similar to disease progression, which would include lead time prior to the manifestation of active signs and symptoms; periods of ‘remission’; and critical points in which mistreatment becomes more intensive or acute”

National Academy of Sciences. 2003
Elder Mistreatment Abuse, Neglect and Exploitation in an Aging America



Tool for Risk, Interventions and Outcomes

[Link to online demonstration](#)

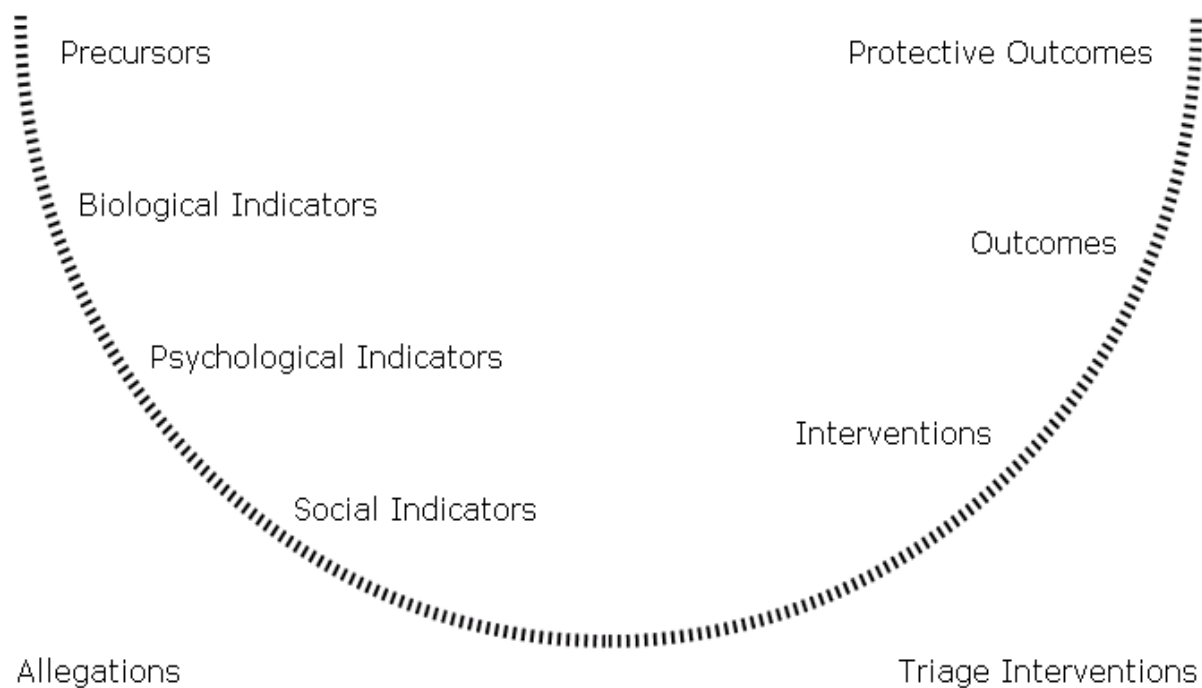
- Username: TRIO
- Password: I would like to test TRIO

TRIO

P A N O R A M I C S O F T W A R E , I N C .

Curve

Adult Protective Services Tool for Risk, Interventions and Outcomes



TRIO

PANORAMIC SOFTWARE, INC.

Curve

Adult Protective Services Tool for Risk, Interventions and Outcomes

Psychological Indicators

- ☐ Self-blame for current situation-Makes excuses for alleged perpetrator ⓘ
- ☐ Feelings of shame, guilt, fear and or loneliness ⓘ
- ☐ Feelings of depression ⓘ
- ☐ Sense of resignation and hopelessness with vague reference to mistreatment ⓘ
- ☐ Appears anxious ⓘ
- ☐ Appears clingy ⓘ
- ☐ Appears afraid of someone or something ⓘ
- ☐ Behavior that is passive ⓘ
- ☐ Behavior that is helpless ⓘ
- ☐ Behavior that is withdrawn ⓘ
- ☐ Hoarding ⓘ

Return to Curve

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Multidimensional Measurement Within Adult Protective Services: Design and Initial Testing of the Tool for Risk, Interventions, and Outcomes

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TRIO Data Research Goals

To better characterize and describe:

- 1) who we serve
- 2) what we do
- 3) what we achieve
- 4) and most importantly, *the relationships between:*
 - who we serve
 - what we do
 - what we achieve



TRIO Data Client Characteristics

- A total of 2,128 persons with 2,505 episodes
- 27% Dependent Adults (18-64) and 73% Older Adults (65+)
- 65% Female
- 68% Caucasian, 21% Hispanic, 3% Asian, 3% African American
5% Other/Unknown
- Of the older adult allegations referred to APS
 - 50% confirmed
 - 25% inconclusive
 - 25% unfounded
- Results discussed today primarily focus on older adult episodes with confirmed allegations (n=917)



Key Findings of Risk Indicators

- Clients abused by others tended to have higher prevalence of risk indicators in:
 - Family/marital conflict
 - Exploitation
 - Alert and oriented x4 declaration of abuse/neglect
- In contrast, SN clients are more likely to have items related to poor health and diminished hygiene
- Risk indicators cluster to form 10 unique profiles with different outcomes
- Diverse clustering indicates complexity of situations and highlights challenges to APS systems



Key Findings to Risk Mitigation

- 70-75% of episodes close with an elimination or reduction of risk to the protective issue
- Minimal variation in the percent of unresolved protective issue by allegation type
- Elders return to APS at a higher rate than dependent adults (16% compared to 10%)
- It is more common for clients with confirmed allegation to recur with a subsequent confirmed allegation (13%) than for clients with an inconclusive to progress to a more serious confirmed allegation (8%)



Key Findings to Risk Mitigation

- Elders with an initial unfounded allegation, the progression toward a more severe allegation is less common (6%)
- Clients with a precursor risk indicator of physical disability and confusion are associated with increased likelihood of the protective issue being resolved.



Key Findings to Interventions

- 60-80% of elders and dependent adults are offered and accept core interventions and have more than one
 - Information and education
 - Referral for services
 - APS works with the support system
- 5-10% received other interventions
- 30% of confirmed SN and abuse by other received in-home nursing
- Confirmed allegations received the highest number of different interventions



Key Findings to Health, Safety and Well-being

- The importance of measuring progress toward goal (elimination or reduction of risk)
- For both elders and dependent adults, APS achieved some positive outcome and improvement in most cases

Health	25%
Safety & Stability	60%
Financial Security	10%

Recurrence and Prognosis by Age and Gender

- No significant difference in recurrence rate by age: 80+ return at the same rate as 65-79
- Younger elders age 65-79 are more likely to have an unresolved protective issue as compared to older adults age 80+
- Gender does not appear to be associated with actual recurrence
- Younger elders get a better prognosis but no clear dominant age effect for actual recurrence



Client Engagement

- Using LCA, clients fall into 2 groups- extensive engagement and limited engagement
- Clients with extensive engagement have better outcomes
- Lower participation was a strong predictor of an unresolved protective for SN and abuse by other.
- Engagement interventions like building rapport, trust and a bond increases the likelihood of a better outcome



Prevalence of Common Risk Factors & Outcomes by Confirmed Allegation Type - Older Adults (N=917)

	SN% N=424	A % N=420	SN/A% N=73	Sig.
Lives alone	58.0	22.9	37.7	***
Poor judgment/decisions	57.1	34.3	67.1	***
History of APS referrals	48.3	36.2	63.0	***
Underweight/frail	29.7	11.7	37.1	***
Lack social support	27.8	8.1	26.0	***
Refuses help	22.9	5.2	11.0	***
Marital/family conflict	18.6	47.6	35.6	***
Ev of exploitation by others	1.7	34.5	27.4	***
<i>Unresolved protective Issue</i>	28.3	26.0	24.7	
<i>180-day APS recurrence</i>	14.8	6.5	38.0	***

Summary of Key Findings

- Key individual risk factors associated with APS outcomes
- *Refuse help* and *APS history* as “global” risk factors that cross allegation types
- Other risk factors primarily allegation specific:
 - Self-neglect: *Lack social support, Confusion*
 - Abuse-by-other: *Family conflict, Shame/guilt*



TRIO Data & APS Client Risk Profiles

- TRIO risk factor items can help identify clients with similar risk profiles
- Latent Class Analysis (LCA) used to develop APS clients groupings
- LCAs “let the data speak for themselves”



LCA and the TRIO

- We conducted separate LCAs for each type of confirmed allegation:
 - 1) **self-neglect**
 - 2) **abuse by other**
 - 3) **self-neglect** AND **abuse by other** episodes
- The 3 sets of LCAs resulted in:
 - 4 self-neglect profiles,
 - 4 abuse-by-other profiles, and
 - 2 “both” risk profiles
- The following tables provide an overview of these LCA identified risk profiles



Overall Risk Profiles Summary

- LCA analyses identified:
 - 4 Self-neglect risk profiles
 - 1 **13%:** Unclean/poor decisions
 - 2 **22%:** Poor decisions
 - 3 **8%:** Mental health concerns
 - 4 **57%:** Diffuse/relatively new to APS
 - 4 Abuse-by-other risk profiles
 - 5 **11%:** Confusion/frailty
 - 6 **32%:** Exploitation/financial concerns
 - 7 **23%:** Family conflict/psychological concerns
 - 8 **34%:** Diffuse/declarations of abuse
 - 2 “Both” risk profiles
 - 9 **49%:** Family conflict/psychological concerns
 - 10 **51%:** Confusion/exploitation

Select Risk Indicators by LCA Risk Profile for Confirmed Abuse by Other Episodes

	Profile 5 (confusion/frail) N=48	Profile 6 (exploit./money) N=133	Profile 7 (conflict/psych) N=96	Profile 8 (diffuse/declare) N=143
Confusion/cognitive impairment	60.4	38.3	11.5	10.5
Underweight/frail	50.0	7.5	7.3	5.6
Unclean/unsafe environment	33.3	1.5	8.3	0.7
Alcohol by caregiver	33.3	0.0	7.3	0.0
Evidence of exploitation	18.8	82.7	26.0	0.0
Misuse of money	8.3	39.1	9.4	0.0
Marital/family conflict	50.0	22.6	84.4	45.5
Self-blame	8.3	3.0	45.8	0.7
Poor judgment/poor decisions	45.8	34.6	60.4	12.6
History APS referrals	68.8	30.8	49.0	21.7
Alert declaration psych abuse	8.3	3.0	35.4	33.6
Alert declaration of phy/sex abuse	6.3	0.0	14.6	21.7

Select Risk Indicators by LCA Risk Profile for Confirmed Abuse by Other Episodes

	Profile 5 Confusn/ Frail N=48	Profile 6 Exploit/ Financial N=133	Profile 7 Conflict/ Psych N=96	Profile 8 Diffuse/ Decl Abs N=143
Confusion/cognitive impairment	High	Moderate	Low	Low
Underweight/frail	High	Very Low	Very Low	Very Low
Evidence of exploitation	Low	Very High	Mod	Very Low
Misuse of money	Low	Rel High	Low	Very Low
Marital/family conflict	High	Rel Low	Very High	High
Self-blame	Low	Very Low	High	Very Low
History APS referrals	High	Moderate	High	Rel Low
Alert declaration psych abuse	Low	Very Low	Rel High	Rel High
Alert declaration of phy/sex abuse	Very Low	Very Low	Low	Moderate

Select Outcomes by LCA Risk Profile for Confirmed Abuse-by-Other Episodes

	All N=420	Profile 5 Confusion /Frail N=48	Profile 6 Exploit/ Money N=133	Profile 7 Conflict/ Psych N=96	Profile 8 Diffuse/ Declared N=143	Sig.
Financial	12.4	8.3	24.8	7.3	5.6	***
Health	17.6	29.2	9.8	26.0	15.4	**
Safety	57.9	64.6	54.9	69.8	50.3	**
Unresolved protective issue	26.0	20.8	21.8	37.5	23.8	*
180-day APS recurrence	6.5	10.3	3.3	9.7	6.1	

* p<.05; ** p<.01; *** p<.001

Summary: Risk Profiles and APS Outcomes

- Different APS risk profiles exhibited significant and substantial variation across certain APS outcomes
- Most differences were consistent with practice-based expectations. For example:
 - Exploitation/financial issues profile was most likely to achieve a financially related APS outcome
 - Family conflict profiles were most likely to have unresolved protective issue
 - While not statistically significant, the more “difficult” or complex profiles tended to have highest 180-day APS recurrence rates



Relationship between Risk Profile, Interventions, and Client Outcomes

- Conducted an “intervention” LCA for each risk profile
- Intervention LCAs results consistently identified 2 groups for each risk profile:
 - 1) **High Engagement Clients:** *high frequency* participation in **core interventions activities**
 - 2) **Low Engagement Clients:** *low frequency* participation in **core intervention activities**



Select Interventions by LCA Intervention Profile: Abuse-by-Other Profile 6 (Exploitation)

	Profile 6a N=82	Profile 6b N=51	Sig.
Bond/engage w/social worker	100.0	19.6	***
Accept problem exists	81.7	7.8	***
Accept education / information	78.0	11.8	***
Support system work w/APS	56.1	29.4	**
Agrees to case management	45.1	9.8	***
Referral to services	41.5	23.5	*

* p<.05; ** p<.01; *** p<.001

Profile 6a

Very high levels of participation
in most core interventions

Profile 6b

Fairly low levels of participation
in the core interventions

Select Interventions by LCA Intervention Profile: Abuse-by-Other Profile 6 (**Exploitation**)

	All N=133	Profile 6a High Engaged N=82	Profile 6b Low Engaged N=51	Sig.
Financial	24.8	30.5	15.7	
Health	9.8	12.2	5.9	
Safety	54.9	65.9	37.3	**
Unresolved protective issue	21.8	13.4	35.3	**
180-day APS recurrence	3.3	5.3	0.0	

** p<.01

Summary: Select Risk Profiles, APS Interventions and APS Outcomes

- Overall pattern of *“highly” engaged APS clients* within each risk profile who received more of APS interventions and generally *achieved better APS outcomes*
- However, relationship between *APS “engagement”* and *APS recurrence* appears to be more nuanced

TRIO Outcomes - Confirmed Elder Neglect Compared to Financial Abuse

TRIO Dimension	Indicator	Confirmed Self-Neglect % n=471	Confirmed Fin. Abuse % n=198	Sig.
Risk	History of APS referrals	49.9	35.9	**
Risk	Lives alone	54.6	30.8	***
Risk	Confusion	39.3	30.8	*
Risk	Medication misuse	16.8	1.0	***
Risk	Underweight/frail	31.2	7.1	***
Risk	Hoarding	11.9	1.0	***
Risk	Feels depressed	12.1	9.1	
Risk	Unclean environment	25.9	2.5	***
Risk	Evidence of exploitation	1.5	67.2	***
Risk	Misuse of money	7.6	30.3	***
Risk	Declared exploitation	1.5	31.3	***
Intervention	Medical consultation	10.0	2.0	***
Intervention	Nursing assessment	33.8	9.6	***
Intervention	FAST Team	0.2	4.5	***
Outcome	Financial stability	3.6	20.2	***
Outcome	Improved function	19.1	3.5	***
Outcome	Improved nutrition	14.0	3.5	***
Outcome	Improved physical health	4.9	0.5	**
Outcome	Improved mental health	9.1	8.6	

* p<.05 ** p<.01 *** p<.001

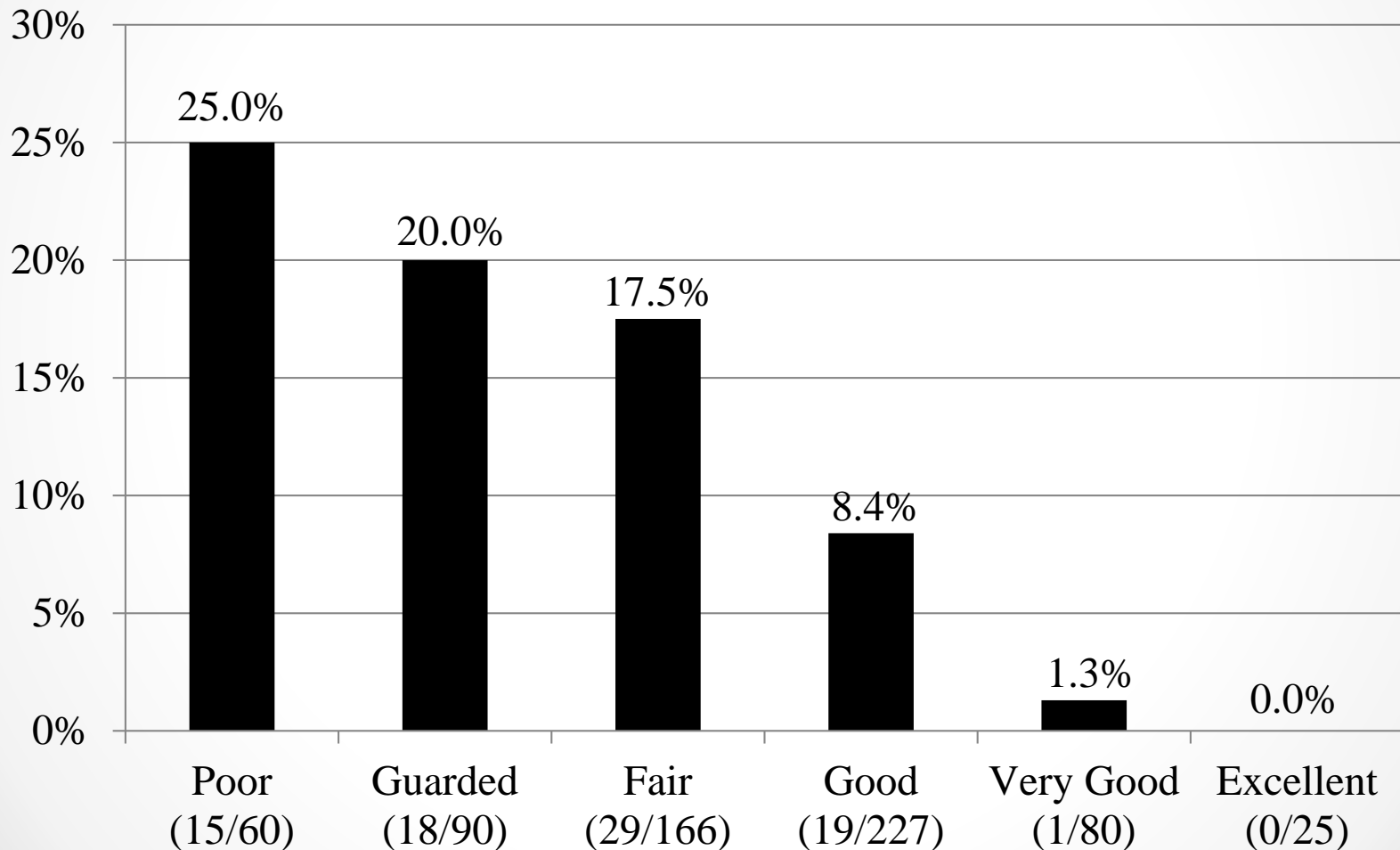
An Opportunity for Improved Outcomes

– Prognosis for APS Non-Recurrence

- At case closure, APS social worker records a prognosis for APS non-recurrence in the TRIO
- “Prognosis” is a **6-point categorical scale** ranging from “poor” to “excellent”
- Based on all APS social worker knowledge of episode
- To what extent does **“prognosis” indicator** correspond to **actual APS recurrence?**



180-Day APS Recurrence by APS Social Worker “Prognosis” at Case Closure



APS Recurrence and “Prognosis”

- APS social worker assessment expertise:
 - Statistically and substantially significant capacity to accurately assess risk of APS recurrence
- In APS systems **with** existing long-term follow-up or case management:
 - TRIO results indicate “prognosis” as valid technique for targeting scarce resources to high recurrence risk clients
- In APS systems **without** long-term follow-up or case management:
 - TRIO results provide empirical support for capability of APS social workers to accurately identify high recurrence risk clients, which could help justify value of long-term follow-up or case management programs



TRIO: Concluding Thoughts

- In addition to TRIO **APS practice benefits** (e.g., standardization), TRIO data are instrumental for **agency and field level knowledge development**
- Key contributions include a better understanding of:
 - **Who is served by APS**, particularly with the multi-faceted risk profiles exhibited by APS clients
 - **What interventions are typically provided** to what type of APS clients
 - **What types of outcomes are achieved** by the end of an APS episode
 - **What factors influence APS outcome achievement** (e.g., client risk profiles, interventions provided, level of “engagement” of client)
 - The capacity of APS social workers to **accurately identify clients at high risk for APS recurrence**

TRIO Outcomes

December 1, 2011 to December 18, 2015

Total Episodes n= 6,717

CONFIRMED Episodes of ABUSE/NEGLECT (n= 3,263)

	Episodes with Social Work Only	Episodes with Social Work + In-Home Nursing	Difficult Episodes Presented to Rapid Response MDT	Difficult Episodes Presented to FAST
	n = 2,260	n= 774	n=211	n = 18
Protective Issue unresolved	26%	19%	23%	17%
Protective Issue eliminated or reduced	74%	81%	77%	83%
Total (rounding with rounding errors)	100%	100%	100%	100%

Statistically significant differences found using chi-square test ($p < .01$)

TRIO: Concluding Thoughts

Overall, the TRIO contributes to an APS strategy that seeks to provide the right intervention, at the right time, to the right client



How to access the TRIO

- URL: <https://aps.panosoft.com/TRIO>
- User name: TRIO
- Password: I would like to test TRIO



Acknowledgements

- County of Ventura APS Team
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