

# COVID-19 Community Testing and Case Investigation/Contact Tracing Action Plan and Budget Request

The Tri-County Health Department (TCHD) COVID-19 Community Testing and Case Investigation/Contact Tracing Action Plan lays out the steps necessary to ensure access for community wide testing, disease investigation and contact tracing, and coordination to more safely reopen our economy. Case investigation, contact tracing, monitoring, and the provision of social support to infected individuals and their contacts is a scientifically proven method for preventing community-wide disease transmission. As the metro area opens under Safer at Home public health order, a critical priority for TCHD is to implement an action plan to rapidly increase access to testing and to scale up case investigation and contact tracing. The Action Plan has 3 major objectives:

- Objective 1: Expand testing in Adams, Arapahoe, and Douglas Counties to a nationally recommended target of 152/100,000 tests per day (2,288 in our three counties).
- > Objective 2: Deploy an expanded workforce for case investigation and contact tracing.
- > Objective 3: Create expanded capacity to collect and analyze data to inform decision making.

## **Expansion of Testing**

TCHD is working with area partners to expand testing in Adams, Arapahoe, and Douglas Counties, for a total of 2,288 tests per day (Adams County: 777 tests/day, Arapahoe County: 990 tests/day, and Douglas County: 521 tests/day) as testing supplies become more fully available during the month of May 2020. Governor Polis' goal is to provide up to 8,500 tests per day statewide by the end of May.

The first step in this effort includes assessing current area testing capacity, determining increased testing capacity at both current facilities and in coordination with other area partners, supporting testing sites, community mapping of testing by facility type, community mapping of testing by local labs, conducting a hospital and health system survey, planning meetings across community partners, and providing guidance and support to health systems.

The goal is to maximize the use of all available testing platforms and venues: health care administered testing, self-administered testing, partnerships with private labs, CDPHE labs, and hospital labs, as well as testing settings to include mobile vans and drive through testing and testing partnerships to include pharmacy, hospitals, urgent care centers and safety net clinics.

Together we need to identify and overcome barriers to efficient testing including: executing a communications campaign to address underutilization of a deployed testing asset such as low turnout at a mobile testing site, training of mobile testing staff to address timely filing of laboratory requisition entries, providing technical assistance to develop partner workflows to ensure rapid results, and clinical guidance provided to community members testing positive.

We are also working to identify new testing technologies and match to best use case scenarios in the community for accelerated uptake, to include: outreach to Kroger to partner with City of Aurora to bring recently approved FDA self-swab drive through testing to Aurora, execute a communications campaign



to encourage all symptomatic individuals to get tested as Walgreens launches self-administered testing in Aurora and Thornton in late May, two sites identified for early implementation.

Additionally, we are working to prioritize the testing needs of vulnerable and otherwise high-risk populations, including older adults and healthcare workers, to include: working with STRIDE and trusted community organizations to plan mobile testing in hard to reach neighborhoods; execute a communications campaign developed to outreach to otherwise hard to reach neighborhoods to encourage testing and reinforce public health messaging on slowing community spread of COVID-19, including press conferences, radio and newsprint spots and through trusted educational messaging from patient navigators and community health workers embedded in communities.

Finally, we will monitor the use of antibody testing for future deployment as federal guidance emerges on the use of this technology to help assess the number of people in a community who have been previously infected by the virus, especially within critical groups like first responders, essential workers, healthcare providers, and vulnerable populations.

## **Case Investigation/Contact Tracing**

TCHD is working on a major priority of deploying an expanded workforce for disease investigation and contact tracing. This includes executing rapid response programs that enable quick isolation and contact tracing of individuals who test positive, whether they are symptomatic or asymptomatic. Anyone who has come into contact with an individual who has tested positive will be screened for symptoms, and those who are symptomatic will be directed to testing sites. We also are working to identify and provide public health interventions with high priority locations, such as long term care facilities (LTCF), through our LTCF Outbreak Task Force, as well as rapid response to other community outbreaks through our Community Outbreak Task Force. Containment of outbreaks will be successful with both case investigation and through systems for contact tracing.

As part of our disease control efforts, we are utilizing a phased approach to assure we have systems in place to support enhanced case investigation and contact tracing, which includes:

- Identifying team components (managers, staff, resource coordination, data, administrators);
- Creating a long-term sustainable epidemiology structure; and,
- Developing a phased approach to ramp up to the long-term structure.

Currently TCHD is averaging 175 cases per day and has a total of 43 staff serving between 2 to 5 days a week for 7 day a week coverage. This includes five high-level Communicable Disease Epidemiologists who serve in this role day to day, along with 38 staff who have been reassigned either full time or part-time to support this response. The surge staff support various disease control efforts, to include the Investigation Task Force that works on daily case investigations, as well as staff serving on both the Long Term Care Facility Outbreak Task Force and the Community Outbreak Task Force. TCHD is continuing to increase the number of trained internal staff to address the increasing number of cases occurring in our 3 counties and we plan to expand the internal surge staffing pool over the next two weeks as some current TCHD surge staff may return to their regular job duties. At the same time, TCHD has contracted with a Senior Recruiter, to solely focus on response recruiting, screening and the placement of contract



staff/volunteers. We have developed an application on the TCHD website and we will begin reviewing qualified individuals, as well as associated availability, beginning the week of May 11, 2020.

As part of our phased approach for first up-staffing internally, we are creating both a strong epidemiology infrastructure to manage case and contact investigations as well as creating teams with TCHD experience and leadership who can support the large numbers of external staffing, including volunteers who will join these teams. The other critical piece that is required to support large scale contact tracing is an appropriate statewide technology solution to support contact tracing data collection and analysis, and the estimated date for the selection and deployment of this statewide solution is June 15, 2020. Thus, as the infrastructure continues to grow, we are establishing a robust training program for incoming team members and we are identifying a large cadre of staff, so we can move into the next phase of operationalizing this long term structure to support ongoing case investigation and contact tracing.

As community testing continues to increase, we are expecting to see an increase in the number of cases. If we reach our collective jurisdictional goal of 2,288 tests per day and we are seeing 15-23% positive cases (data pulled from: <u>https://data.tchd.org/covid19/testing/</u>), we can assume we may see 350-525 cases per day. The workforce to manage these cases and their associated contacts is outlined in the table below. The estimated workforce needs based on moving from abridged case investigations and contact tracing efforts to full case investigation and contact tracing efforts is illustrated below (to including building the full workforce over the next 6-8 weeks):

TCHD COVID-19 Investigation Task Force Staffing Estimates	Average Total Number of Cases per Day as of 5/8/20	Current Workforce (5/8/20) based on Average Caseload of 175 with Partial Investigation and Tracing)	Estimated Workforce based on Average Caseload (175 Cases/Day with full investigation and tracing)	Estimated Workforce based on Average Caseload (350 Cases/Day with full investigation and tracing)	Estimated Workforce based on Average Caseload (525 Cases/Day with full investigation and tracing)
Number of Teams Needed		N/A	11	22	33
Investigation Supervisor		2	2	4	6
Investigation Coordinator		2	2	4	6
Investigation Team Lead		4	11	22	33
Case Investigator		20	22	44	66
Investigation Contact Tracer		N/A	45	90	135
Investigation Contact Monitor		N/A	22	44	66
CEDRS Coordinator		1	2	4	6
Data Analyst		N/A	N/A	N/A	N/A
Outbreak Task Force		10	13	26	39
LTCF Outbreak Task Force		11	15	30	45
Total Number of Staff		50	134	268	402
Estimated Date of Completion		5/11/2020		07/1/2020	1



# **Enhanced Data for Decision Making**

We are working to utilize the full range of COVID-19 data to inform decision making of the work outlined in our efforts related to community testing as well as case investigation and contact tracing. We continually work to Identify and categorize new and existing data sources for surveillance and compile reports and visualizations of critical metrics. Below is a broad summary of these metrics:

- Main Data Dashboard Page:
  - o <a href="https://data.tchd.org/covid19\_resources/">https://data.tchd.org/covid19\_resources/</a>
- Testing Data by County:
  - o <a href="https://data.tchd.org/covid19/testing/adams/">https://data.tchd.org/covid19/testing/adams/</a>
  - o <a href="https://data.tchd.org/covid19/testing/arapahoe/">https://data.tchd.org/covid19/testing/arapahoe/</a>
  - o <a href="https://data.tchd.org/covid19/testing/douglas/">https://data.tchd.org/covid19/testing/douglas/</a>
  - o <u>https://data.tchd.org/covid19/testing/aurora/</u>
- Case Reporting:
  - Cases: <u>https://data.tchd.org/covid19/</u>
  - Community Case Rates: <u>https://data.tchd.org/covid19/rates/</u>
  - Cases and Hospitalizations: <u>https://data.tchd.org/covid19/epi/</u>

Access to data allows us to provide recommendations on data interpretation and action, including identification of areas of potential outbreak and where to direct community testing resources:

- For the community members living in the TCHD jurisdiction: explanations of how to interpret regional data and the link to slowing community spread
- For policy makers such as Boards of County Commissioners and City Leadership and Elected Officials: recommendations for when and how social distancing or other related policies may need to be instituted or lifted
- For community testing partners such as STRIDE, University of Colorado Hospitals and Children's Hospital: recommendations about where and on whom to focus testing
- For containment work: recommendations for data management and evaluation of postsuppression containment strategies



# **COVID-19 Current Grant Allocation and Budget Needs**

In order to support ongoing response efforts related to expanded case investigation and contact tracing, unforeseen legal fees and ongoing social marketing costs, the following budget outlines the personnel and operating costs to support ongoing efforts related to the COVID-19 response. The majority of fiscal needs requested by TCHD for the COVID-19 response include personnel support, along with additional operating costs. To ensure transparency regarding current federal funding provided to TCHD to support COVID response efforts, it is important to provide detail that TCHD received federal pass through supplemental dollars from CDPHE as part of the CDC Public Health Emergency Preparedness COVID response dollars for a total of \$829,361. Spending to date includes:

- > All TCHD COVID-19 Response Related March-April 2020 Expenses to Date:
  - Personnel Costs \$750,912 (93.99% of the total dollars from CDPHE/CDC)
  - Marketing Costs not yet invoiced to TCHD
  - Legal \$32,094 (4.02% of the total dollars from CDPHE/CDC)
- Breakdown regarding supplemental funding from CDPHE (funding provided for March 2020 March 2021):
  - Total received \$829,361
  - March Invoice Submitted to CDPHE \$379,405 (*including indirect costs*)
  - *Estimated* April Invoice Estimate \$614,896 (*including indirect costs*)
  - Balance after April Estimate (\$164,940 over budget)
- Additional funding is being requested to our counties to support COVID-19 response efforts for 8 months (through the end of the calendar year) to include May 2020 through December 2020. This timeframe was selected due to the expenditure requires for the current CARES dollars. We are requesting support for costs incurred beginning in May 2020 to support TCHD staff reassigned to COVID-19 response efforts as well as expanded temporary workforce and operating costs across Adams, Arapahoe and Douglas Counties:
  - Personnel See estimates in table below per month by staffing level
  - Marketing Budgeted \$60,000 total
  - Legal Budgeted \$120,000 total
  - Supplies Budgeted \$24,000 total
  - Translation/Interpretation Services Budgeted \$12,000
- Listed below is a budget request that illustrates estimated expanded workforce costs/month (including temporary contracted staff at \$21/hour and associated fees for staffing agencies) along with operating costs. This has been broken out into 4 time periods to account for costs we will/are incurring in May with our current staffing (50 staff), during June while we begin to scale up the contact tracing/case investigation teams (75 staff), to July through September to account for full staffing support for contact tracing/case investigation (134 staff), with a final doubling up of staff during October through December for the potential surge in cases during this coming fall (268 staff). The allocation of staff costs by county are based on the current proportion of case



load per county. See Appendix 1: The Adams County percent is 35.7%; Arapahoe County percent is 53.2% and Douglas County percent is 11.1%. *Note: The workforce costs are illustrated as a proportion of COVID-19 cases per county. While some public health services can be assigned and conducted within a county boundary, disease investigations and outbreaks cross county boundaries and thus this is presented as such due to the dynamic nature of this type of work.* 

#### Budget Request Form: May 2020 – December 2020

TOTAL

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128,527

Note: The allocation of staff costs by county are based on the current proportion of case load per county.

#### May June July-Sept Oct-Dec 134 Total 50 Total 75 Total 268 Total Expenditure Categories Total Staff Staff Staff Staff \$ 931,457 Personnel Services \$ 118,891 178,325 \$ 1,740,650 \$ 2,969,323 Ś Marketing / Translation \$ 3,212 \$ 3,212 Ś 9,635.90 \$ 9,635.90 \$ 25,696 Supplies & Operating \$ 1,071 1,071 \$ \$ 3,211.97 \$ 3,211.97 \$ 8,565 Legal Expenses \$ 5,353 \$ 5,353 Ś 16,059.84 \$ 16,059.84 \$ 42,826

# Adams County Budget Form COVID-19 Community Testing and Case Investigation/Contact Tracing

# Arapahoe County Budget Form

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# COVID-19 Community Testing and Case Investigation/Contact Tracing

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960,365

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1,769,557

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3,046,411

		May		June		July-Sept		Oct-Dec		
Expenditure Categories	Ę	50 Total Staff	7	75 Total Staff		134 Total Staff		268 Total Staff		Total
Personnel Services	\$	\$ 177,217		265,809	\$	1,388,415	\$	2,594,583	\$	4,426,024
Marketing / Translation	\$	4,788	\$	4,788	\$	14,363	\$	14,363	\$	38,302
Supplies & Operating	\$	1,596	\$	1,596	\$	4,788	\$	4,788	\$	12,767
Legal Expenses	\$	\$ 7,980		\$7,980		23,939	\$	23,939	\$	63,836
TOTAL	\$	\$ 191,580		\$ 280,172		\$ 1,431,504		\$ 2,637,673		4,540,929



# **Douglas County Budget Form**

# COVID-19 Community Testing and Case Investigation/Contact Tracing

		May		June		July-Sept		Oct-Dec		
Expenditure Categories	5	0 Total Staff	7	75 Total Staff		134 Total Staff		268 Total Staff		Total
Personnel Services	\$	37,027	\$	55,537	\$	290,091	\$	542,104	\$	924,759
Marketing / Translation	\$	1,000	\$	1,000	\$	3,000.98	\$	3,001	\$	8,003
Supplies & Operating	\$	333	\$	333	\$	1,000.33	\$	1,000	\$	2,668
Legal Expenses	\$	1,667	\$	1,667	\$	5,001.64	\$	5,002	\$	13,338
TOTAL	\$	\$ 40,028		\$ 58,538		\$ 299,094		\$ 551,107		948,767



# Appendix 1. Reference Sheet for Estimated Costs per Month by Proportion of Cases per County

Reported	l Cases by County (as	of 05-11-2020)
<u>County</u>	Case Count Proport	tion (%) of Total
Adams	2177	35.7%
Arapahoe	3245	53.2%
Douglas	678	11.1%
	6100	100.0%
Expenditure (		

Staffing		Staff Level	May 50	June 75	July-Sept 134	Oct-Dec 268	Total
	Total Staffing		\$ 333,136	\$ 499,671	\$ 2,609,963	\$ 4,877,337	\$ 8,320,107
	Allocating by Case Load	1					
	Adams	35.7%	\$ 118,891	\$ 178,325	\$ 931,457	\$ 1,740,650	\$ 2,969,323
	Arapahoe	53.2%	\$ 177,217	\$ 265,809	\$ 1,388,415	\$ 2,594,583	\$ 4,426,024
	Douglas	11.1%	\$ 37,027	\$ 55,537	\$ 290,091	\$ 542,104	\$ 924,759
	Total	100.0%	\$ 333,136	\$ 499,671	\$ 2,609,963	\$ 4,877,337	\$ 8,320,107
Non Staffi	ng Expenses						
	Marketing		\$ 7,500	\$ 7,500	\$ 22,500	\$ 22,500	\$ 60,000
	Legal		\$ 15,000	\$ 15,000	\$ 45,000	\$ 45,000	\$ 120,000
	Supplies		\$ 3,000	\$ 3,000	\$ 9,000	\$ 9,000	\$ 24,000
	Translation/Interpret	ation	\$ 1,500	\$ 1,500	\$ 4,500	\$ 4,500	\$ 12,000
	Total Non Staffing Expe	inses	\$ 27,000	\$ 27,000	\$ 81,000	\$ 81,000	\$ 216,000
	Allocating by Case Load	1					
	Adams	35.7%	\$ 9,636	\$ 9,636	\$ 28,908	\$ 28,908	\$ 77,087
	Arapahoe	53.2%	\$ 14,363	\$ 14,363	\$ 43,089	\$ 43,089	\$ 114,905
	Douglas	11.1%	\$ 3,001	\$ 3,001	\$ 9,003	\$ 9,003	\$ 24,008
	Total	100.0%	\$ 27,000	\$ 27,000	\$ 81,000	\$ 81,000	\$ 216,000

#### Total Expense by County

ise by councy					
Adams	\$ 128,527	\$ 187,961	\$ 960,365	\$ 1,769,557	\$ 3,046,411
Arapahoe	\$ 191,580	\$ 280,172	\$ 1,431,504	\$ 2,637,673	\$ 4,540,929
Douglas	\$ 40,028	\$ 58,538	\$ 299,094	\$ 551,107	\$ 948,767
Total	\$ 360,136	\$ 526,671	\$ 2,690,963	\$ 4,958,337	\$ 8,536,107



Expendit	ure Details											
				May		June		July-Sept		Oct-Dec		
Staffing		Staff Level		50		75		134		268		Total
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	Total Staffing		\$	333,136	\$	499,671	\$	2,609,963	\$	4,877,337	\$	8,320,107
	Allocating by Case Load	1										
	Adams	35.7%	\$	118,891	\$	178,325	\$	931,457	\$	1,740,650	\$	2,969,323
	Arapahoe	53.2%	\$	177,217	\$	265,809	\$	1,388,415	\$	2,594,583	\$	4,426,024
	Douglas	11.1%	\$	37,027	\$	55,537	\$	290,091	\$	542,104	\$	924,759
	Total	100.0%	\$	333,136	\$	499,671	\$	2,609,963	\$	4,877,337	\$	8,320,107
Non Staff	ing Expenses											
	Marketing		\$	7,500	\$	7,500	\$	22,500	\$	22,500	\$	60,000
	Legal		\$	15,000	\$	15,000	\$	45,000	\$	45,000	\$	120,000
	Supplies		\$	3,000	\$	3,000	\$	9,000	\$	9,000	\$	24,000
	Translation/Interpret	ation	\$	1,500	\$	1,500	\$	4,500	\$	4,500	\$	12,000
	Total Non Staffing Expe	nses	\$	27,000	\$	27,000	\$	81,000	\$	81,000	\$	216,000
	Allocating by Case Load	1										
	Adams	35.7%	\$	9,636	\$	9,636	\$	28,908	\$	28,908	\$	77,087
	Arapahoe	53.2%	\$	14,363	\$	14,363	\$	43,089	\$	43,089	\$	114,905
	Douglas	11.1%	\$	3,001	\$	3,001	\$	9,003	\$	9,003	\$	24,008
	Total	100.0%	\$	27,000	\$	27,000	\$	81,000	\$	81,000	\$	216,000

#### Total Expense by County

Tota	al	\$ 360,136	\$ 526,671	\$ 2,690,963	\$ 4,958,337	\$ 8,536,107
D	louglas	\$ 40,028	\$ 58,538	\$ 299,094	\$ 551,107	\$ 948,767
A	rapahoe	\$ 191,580	\$ 280,172	\$ 1,431,504	\$ 2,637,673	\$ 4,540,929
A	dams	\$ 128,527	\$ 187,961	\$ 960,365	\$ 1,769,557	\$ 3,046,411



Expenditu	Expenditure Details											
				May		June		July-Sept		Oct-Dec		
Staffing		Staff Level		50		75		134		268		Total
	Total Staffing		\$	333,136	\$	499,671	\$	2,609,963	\$	4,877,337	\$	8,320,107
	Allocating by Case	Load										
	Adams	35.7%	\$	118,891	\$	178,325	\$	931,457	\$	1,740,650	\$	2,969,323
	Arapahoe	53.2%	\$	177,217	\$	265,809	\$	1,388,415	\$	2,594,583	\$	4,426,024
	Douglas	11.1%	\$	37,027	\$	55,537	\$	290,091	\$	542,104	\$	924,759
	Total	100.0%	\$	333,136	\$	499,671	\$	2,609,963	\$	4,877,337	\$	8,320,107
Non Staff	ing Expenses											
	Marketing		\$	7,500	\$	7,500	\$	22,500	\$	22,500	\$	60,000
	Legal		\$	15,000	\$	15,000	\$	45,000	\$	45,000	\$	120,000
	Supplies		\$	3,000	\$	3,000	\$	9,000	\$	9,000	\$	24,000
	Translation/Inte	rpretation	\$	1,500	\$	1,500	\$	4,500	\$	4,500	\$	12,000
	Total Non Staffing	Expenses	\$	27,000	\$	27,000	\$	81,000	\$	81,000	\$	216,000
	Allocating by Case	Load										
	Adams	35.7%	\$	9,636	\$	9,636	\$	28,908	\$	28,908	\$	77,087
	Arapahoe	53.2%	\$	14,363	\$	14,363	\$	43,089	\$	43,089	\$	114,905
	Douglas	11.1%	\$	3,001	\$	3,001	\$	9,003	\$	9,003	\$	24,008
	Total	100.0%	\$	27,000	\$	27,000	\$	81,000	\$	81,000	\$	216,000
Total Exp	ense by County											
	Adams		\$	128,527	\$	187,961	\$	960,365	\$	1,769,557	\$	3,046,411
	Arapahoe		\$	191,580	\$	280,172	\$	1,431,504	\$	2,637,673	\$	4,540,929
	Douglas		\$	40,028	\$	58,538	\$	299,094	\$	551,107	\$	948,767
	Total		\$	360,136	\$	526,671	\$	2,690,963	\$	4,958,337	\$	8,536,107



## Expenditures split based on county per capita rates

Expenditu	ure Details											
				May		June		July-Sept		Oct-Dec		
Staffing		Staff Level		50		75		134		268		Total
	Total Staffing		\$	333,136	\$	499,671	\$	2,609,963	\$	4,877,337	\$	8,320,107
	Allocating by per ca	pita										
	Adams	34.4%	s	114,599	s	171,887	\$	897,827	\$	1,677,804	s	2,862,117
	Arapahoe	42.9%	s	142,915	s	214,359	\$	1,119,674	\$	2,092,377	s	3,569,326
	Douglas	22.7%	\$	75,622	\$	113,425	\$	592,462	\$	1,107,155	\$	1,888,664
	Total	100.0%	\$	333,136	\$	499,671	\$	2,609,963	\$	4,877,337	\$	8,320,107
Non Staff	ing Expenses											
	Marketing		s	7,500	s	7,500	s	22,500	s	22,500	s	60,000
	Legal		s	15,000	s	15,000	\$	45,000	\$	45,000	s	120,000
	Supplies		s	3,000	s	3,000	\$	9,000	\$	9,000	s	24,000
	Translation/Interp	pretation	\$	1,500	s	1,500	\$	4,500	\$	4,500	s	12,000
	Total Non Staffing E	xpenses	\$	27,000	\$	27,000	\$	81,000	\$	81,000	\$	216,000
	Allocating by per ca	pita										
	Adams	34.4%	s	9,288	s	9,288	\$	27,864	\$	27,864	s	74,304
	Arapahoe	42.9%	s	11,583	s	11,583	\$	34,749	\$	34,749	s	92,664
	Douglas	22.7%	\$	6,129	\$	6,129	\$	18,387	\$	18,387	\$	49,032
	Total	100.0%	\$	27,000	\$	27,000	\$	81,000	\$	81,000	\$	216,000
Total Evo	ense by County (Per (	Canita Bacic)										
iotai cxp	Adams	capica basis)	s	123,887	¢	181.175	s	925,691	s	1,705,668	¢	2,936,421
	Arapahoe		s		s	225,942	s	1,154,423	s		s	3,661,990
	Douglas		s		s		s	610,849	s		s	1,937,696
	Total		\$		\$	526,671	\$	2,690,963	\$		\$	8,536,107
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